



City of Tualatin

TUALATIN CITY COUNCIL

Monday, February 25, 2013

CITY COUNCIL CHAMBERS
18880 SW Martinazzi Avenue
Tualatin, OR 97062

WORK SESSION begins at 5:00 p.m.
BUSINESS MEETING begins at 7:00 p.m.

Mayor Lou Ogden

Council President Monique Beikman

Councilor Wade Brooksby Councilor Frank Bubenik

Councilor Joelle Davis Councilor Nancy Grimes

Councilor Ed Truax

Welcome! By your presence in the City Council Chambers, you are participating in the process of representative government. To encourage that participation, the City Council has specified a time for citizen comments on its agenda - *Item C*, following Announcements, at which time citizens may address the Council concerning any item not on the agenda with each speaker limited to three minutes, unless the time limit is extended by the Mayor with the consent of the Council.

Copies of staff reports or other written documentation relating to each item of business referred to on this agenda are available for review on the City website at www.tualatinoregon.gov/meetings, the Library located at 18878 SW Martinazzi Avenue, and on file in the Office of the City Manager for public inspection. Any person with a question concerning any agenda item may call Administration at 503.691.3011 to make an inquiry concerning the nature of the item described on the agenda.

In compliance with the Americans With Disabilities Act, if you need special assistance to participate in this meeting, you should contact Administration at 503.691.3011. Notification thirty-six (36) hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

Council meetings are televised *live* the day of the meeting through Washington County Cable Access Channel 28. The replay schedule for Council meetings can be found at www.tvctv.org. Council meetings can also be viewed by live *streaming video* on the day of the meeting at www.tualatinoregon.gov/meetings.

Your City government welcomes your interest and hopes you will attend the City of Tualatin Council meetings often.

PROCESS FOR LEGISLATIVE PUBLIC HEARINGS

A **legislative** public hearing is typically held on matters which affect the general welfare of the entire City rather than a specific piece of property.

1. Mayor opens the public hearing and identifies the subject.
2. A staff member presents the staff report.
3. Public testimony is taken.
4. Council then asks questions of staff, the applicant, or any member of the public who testified.
5. When the Council has finished questions, the Mayor closes the public hearing.
6. When the public hearing is closed, Council will then deliberate to a decision and a motion will be made to either *approve*, *deny*, or *continue* the public hearing.

PROCESS FOR QUASI-JUDICIAL PUBLIC HEARINGS

A **quasi-judicial** public hearing is typically held for annexations, planning district changes, conditional use permits, comprehensive plan changes, and appeals from subdivisions, partitions and architectural review.

1. Mayor opens the public hearing and identifies the case to be considered.
2. A staff member presents the staff report.
3. Public testimony is taken:
 - a) In support of the application
 - b) In opposition or neutral
4. Council then asks questions of staff, the applicant, or any member of the public who testified.
5. When Council has finished its questions, the Mayor closes the public hearing.
6. When the public hearing is closed, Council will then deliberate to a decision and a motion will be made to either *approve*, *approve with conditions*, or *deny the application*, or *continue* the public hearing.

TIME LIMITS FOR PUBLIC HEARINGS

The purpose of time limits on public hearing testimony is to provide all interested persons with an adequate opportunity to present and respond to testimony. All persons providing testimony **shall be limited to 3 minutes**, subject to the right of the Mayor to amend or waive the time limits.

EXECUTIVE SESSION INFORMATION

An Executive Session is a meeting of the City Council that is closed to the public to allow the City Council to discuss certain confidential matters. An Executive Session may be conducted as a separate meeting or as a portion of the regular Council meeting. No final decisions or actions may be made in Executive Session. In many, but not all, circumstances, members of the news media may attend an Executive Session.

The City Council may go into Executive Session for certain reasons specified by Oregon law. These reasons include, but are not limited to: ORS 192.660(2)(a) employment of personnel; ORS 192.660(2)(b) dismissal or discipline of personnel; ORS 192.660(2)(d) labor relations; ORS 192.660(2)(e) real property transactions; ORS 192.660(2)(f) information or records exempt by law from public inspection; ORS 192.660(2)(h) current litigation or litigation likely to be filed; and ORS 192.660(2)(i) employee performance of chief executive officer.



OFFICIAL AGENDA OF THE TUALATIN CITY COUNCIL MEETING FOR FEBRUARY 25, 2013

A. CALL TO ORDER

Pledge of Allegiance

B. ANNOUNCEMENTS

1. New Employee Introduction: Joe Phillips, Economic Development Program Manager
2. Employee of the Year Proclamation for Steve Clark
3. Swearing-In of Police Officer Michael Vorberg
4. Tualatin Public Library Receives Literacy Success Award

C. CITIZEN COMMENTS

This section of the agenda allows citizens to address the Council regarding any issue not on the agenda. The duration for each individual speaking is limited to 3 minutes. Matters requiring further investigation or detailed answers will be referred to City staff for follow-up and report at a future meeting.

D. CONSENT AGENDA

The Consent Agenda will be enacted with one vote. The Mayor will first ask staff, the public and Councilors if there is anyone who wishes to remove any item from the Consent Agenda for discussion and consideration. The matters removed from the Consent Agenda will be considered individually at the end of this Agenda under, 1) Items Removed from the Consent Agenda. The entire Consent Agenda, with the exception of items removed from the Consent Agenda to be discussed, is then voted upon by roll call under one motion.

1. Approval of the Minutes for the City Council Work Session and Regular Meeting on February 11, 2013
2. Approval of Liquor License Renewals for 2013
3. Authorization to Enter into an Intergovernmental Agreement (IGA) with Metro for the Regional Illegal Dumping Patrol (RID) Program.
4. Resolution Adopting the February 2013 Update to the Public Works Construction Code

E. SPECIAL REPORTS

1. Update From The Tigard-Tualatin- Family Resource Center

2. Tualatin Heritage Center Annual Report

3. SW Martinazzi Avenue Project

F. PUBLIC HEARINGS – Legislative or Other

1. Continuation of Public Hearing on Plan Text Amendment 12-02. Amending the Tualatin Development Code (TDC) Chapter 11 - Transportation - to include the 2012 Tualatin Transportation System Plan (TSP). Amending Portions of TDC Chapters 1, 3, 31, 34, 38, 71, 73, 74, and 75 to Implement the TSP.

G. PUBLIC HEARINGS – Quasi-Judicial

H. GENERAL BUSINESS

1. An Ordinance Relating to the Transportation System Plan; Adopting the 2012 Tualatin Transportation System Plan Updates; and Amending Tualatin Development Code Chapters 1, 3, 11, 31, 34, 38, 71, 73, 74, AND 75 (PTA-12-02)

2. Resolution Approving the Ice Age Tonquin Trail Master Plan

I. ITEMS REMOVED FROM CONSENT AGENDA

Items removed from the Consent Agenda will be discussed individually at this time. The Mayor may impose a time limit on speakers addressing these issues.

J. COMMUNICATIONS FROM COUNCILORS

K. ADJOURNMENT



STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

FROM: Nicole Morris, Deputy City Recorder

DATE: 02/25/2013

SUBJECT: Employee of the Year Proclamation for Steve Clark

ISSUE BEFORE THE COUNCIL:

RECOMMENDATION:

Attachments: [Proclamation](#)

Proclamation

Proclamation Declaring Steve Clark as Tualatin's "2012 Employee of the Year"

WHEREAS the Employee of the Year program is designed to recognize the work and actions which bring credit to the City and improve our ability to deliver excellent service to Tualatin's customers; and

WHEREAS Steve Clark was selected as Tualatin's 2012 Employee of the Year by the Employee Recognition Committee; and

WHEREAS Steve Clark was hired on October 20, 1988 as an Accounting Technician in the Finance Department and has been handling the City's utility billing responsibilities since 1990; and

WHEREAS Steve handles a fairly bureaucratic monthly billing process in a non-bureaucratic way, listening to his customers and consistently working with them to satisfy their needs in an extremely friendly and supportive way. His excellent customer service skills are evidenced daily and his sense of humor and demeanor make him a great person to work with and a great diplomat for the City, whether it's working with utility customers, answering citizen's phone calls, or assisting customers coming into the Council Building seeking information or a passport; and

WHEREAS Steve works tirelessly in his position, making sure the almost 7,000 utility accounts are billed accurately each month for water, sewer, storm drain and road utility services. Not only does he work with utility customers daily, but also the City's Building and Operations staff, as well as Clean Water Services to make sure the information is correct and accurate; and

WHEREAS Steve's ability to work with his customers and continue to provide quality customer service is shown in the almost non-existent complaint calls his supervisor receives, as well as the ridiculously low percentage (approximately 0.43%) of accounts that are on the monthly shut-off list; and

WHEREAS Steve is highly valued by his customers, the employees from other departments that he frequently works with and the entire Tualatin Finance Department; and

WHEREAS Steve demonstrates Tualatin's core values of TEAMWORK, RESPECT, ONE CITY, EMPOWERMENT, PROBLEM SOLVING, CUSTOMER SERVICE and being NON-BUREAUCRATIC in a multitude of ways every day.

NOW, THEREFORE, BE IT PROCLAIMED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, Oregon that:

STEVE CLARK IS NAMED THE "2012 CITY OF TUALATIN EMPLOYEE OF THE YEAR."

INTRODUCED AND ADOPTED this 25th day of February, 2013.

CITY OF TUALATIN, OREGON

BY _____
Mayor

ATTEST:

BY _____
City Recorder

City Council Meeting

B. 4.

Meeting Date: 02/25/2013

ANNOUNCEMENTS: Tualatin Public Library Receives AWE Literacy Success Award

ANNOUNCEMENTS

Tualatin Public Library Receives Literacy Success Award

SUMMARY

Mystery Nights at the Library, a popular after-hours sleuthing event for children and families, received the 2012 Literacy Success Award given by AWE Digital Learning. Created by Outreach Librarian Annie Lewis, Mystery Nights introduce library concepts and searching techniques with fun and prizes.

Attachments

[AWE Award](#)

Tualatin Public Library wins AWE Literacy Success Award





AWE
DIGITAL LEARNING SOLUTIONS



TUALATIN PUBLIC LIBRARY

www.tualatinlibrary.org

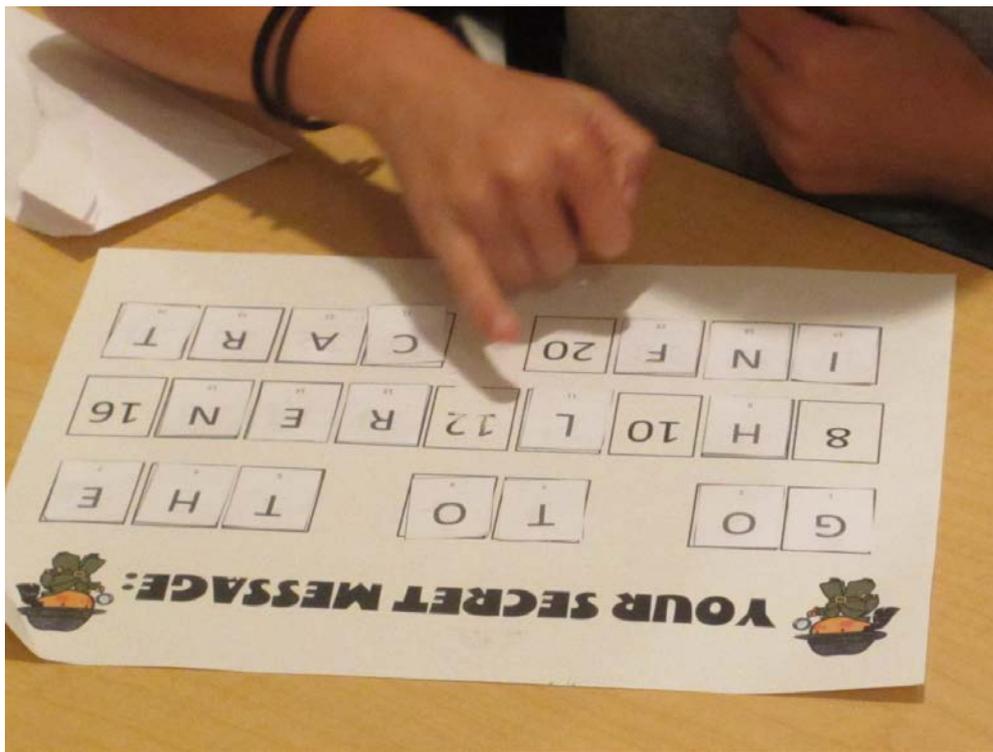


MYSTERY NIGHT AT THE LIBRARY

April 16, 2012 6:00-7:30pm
Tualatin Public Library
Community Room

SOMETHING IS FISHY IN THE LIBRARY. Mysterious messages are appearing in library books. What do the messages reveal? Who is the mysterious messenger?

HELP THE TUALATIN LIBRARY LIBRARIANS solve the mystery at the library on Monday, April 16th. Parents and kids from Tualatin Elementary School will learn how to use the library's online resources and library catalog to solve the mystery.







AWE
DIGITAL LEARNING SOLUTIONS



Washington County
Cooperative Library Services



STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Nicole Morris, Deputy City Recorder

DATE: 02/25/2013

SUBJECT: Approval of the Minutes for the City Council Work Session and Regular Meeting on February 11, 2013

ISSUE BEFORE THE COUNCIL:

The issue before the Council is to approve minutes from the City Council Work Session and Regular Meeting on February 11, 2013.

RECOMMENDATION:

Staff respectfully recommends that the Council adopt the attached minutes.

Attachments: [Council Work Session Minutes for February 11, 2013](#)
[City Council Regular Meeting Minutes for February 11, 2013](#)



OFFICIAL MINUTES OF TUALATIN CITY COUNCIL WORK SESSION FOR FEBRUARY 11, 2013

Present: Mayor Lou Ogden; Council President Monique Beikman; Councilor Wade Brooksby; Councilor Frank Bubenik; Councilor Joelle Davis; Councilor Nancy Grimes; Councilor Ed Truax

Staff Present: City Manager Sherilyn Lombos; City Attorney Sean Brady; Police Chief Kent Barker; Deputy City Manager Sara Singer; Deputy City Recorder Nicole Morris; Maintenance Services Division Manager Clayton Reynolds; Community Development Director Alice Rouyer; Engineering Manager Kaaren Hofmann; Associate Planner Cindy Hahn; Planning Manager Aquilla Hurd-Ravich; Information Services Manager Lance Harris; Finance Director Don Hudson

CALL TO ORDER

Mayor Ogden called the work session to order at 5:33 p.m.

1. **Intersection Safety Camera Update**

Police Chief Kent Barker presented information on the current intersection safety camera program. Chief Barker presented statistics and video taken from the current safety camera locations at the intersections of Tualatin-Sherwood Road and Avery/112th St and Lower Boones Ferry at Bridgeport/72nd Street. Mayor Ogden asked questions regarding how citations are issued and the amount of staff time spent issuing citations. Chief Barker stated that citations are issued based on a variety of set criteria and it takes approximately 1-2 minutes for officers to review each citation.

Chief Barker made two recommendations for additional locations with the best option being at the intersection of Tualatin-Sherwood Road and Martinazzi Avenue. The location was studied and the results showed an increase in red-light detections. Council discussion ensued and agreement was reached to pursue the additional safety camera as well as the possibility of re-negotiating another 5 year contract.

2. **Towing from Private Property**

City Attorney Sean Brady presented a draft ordinance for towing of vehicles from private property. City Attorney Brady noted the City can only regulate two items in regards to towing and these include the price of private tows and safety regulations. He explained the differences between the current and draft ordinances including the sections pertaining to administrative authority, definitions, sign regulations, distance of tow, and price.

Councilor Truax asked where cars are currently being towed. Police Chief Barker stated that they are towed out to lots by the airport or in Beaverton. Councilor Bubenik stated he would like to see regulations regarding a standard sign size put in place. Attorney Brady asked if the Council would like to grandfather in the old signs. Councilors Bubenik and Truax both agreed they would like to grandfather current signs with some restrictions. Councilor Bubenik also stated that he would like to see two items regarding code enforcement in relation to release of vehicles at the scene and predatory towing enforcement. Councilor Truax would like the issue of practicality of towing distance and towing rates addressed in the ordinance as well.

3. Tualatin Tomorrow

Deputy City Manager Sara Singer along with Tualatin Tomorrow Chair Candace Kelly and Vice-Chair Adam Butts presented an update on the Tualatin Tomorrow Vision and Strategic Action Plan. Deputy City Manager Singer re-capped the vision for Tualatin Tomorrow, the project, the partners, and the current status of the project update. The group identified the stakeholders and strategies to engage them. She explained that they are now ready to move to the next step of developing and issuing a request for proposals. A consultant is expected to be hired by April 2013. Chair Kelly stated that she is excited about the direction of the project. She also noted that the advisory committee voted to keep Tigard-Tualatin School District as a partner advisory committee member for another year.

4. Community Survey

Deputy City Manager Sara Singer updated the Council of the status on the community survey. She stated that postcards will go out this week to 1200 households to let them know they have been selected to participate in the survey. In addition to the scientific version of the survey, an additional survey for the public at-large will be made available on the City's website in the coming months. The results of the scientific survey and web survey will be kept separate. Results from both surveys will be provided to the City by the end of April and the Council can expect a presentation in May.

Councilor Beikman asked if the same questions are being used. City Manager Lombos stated that they are, which will allow the City to be able to benchmark against past years and other cities our size. Councilor Grimes asked about how households are picked. Deputy City Manager Singer stated that participants are picked geographically and that she worked with the city's GIS division to ensure that the surveys were evenly distributed.

5. Council Meeting Agenda Review, Communications & Roundtable

Councilor Davis shared that the Human Rights Council of Washington County suffered a significant loss with the passing away of Chair Emily Gottfried. The Human Rights Council will meet next week to regroup and begin retreat planning.

ADJOURNMENT

The work session adjourned at 6:50 p.m.

Sherilyn Lombos, City Manager

_____ / Nicole Morris, Recording Secretary

_____ / Lou Ogden, Mayor



OFFICIAL MINUTES OF THE TUALATIN CITY COUNCIL MEETING FOR FEBRUARY 11, 2013

Present: Mayor Lou Ogden; Council President Monique Beikman; Councilor Wade Brooksby; Councilor Frank Bubenik; Councilor Nancy Grimes; Councilor Joelle Davis; Councilor Ed Truax

Staff Present: City Manager Sherilyn Lombos; City Attorney Sean Brady; Police Chief Kent Barker; Community Development Director Alice Rouyer; Community Services Director Paul Hennon; Finance Director Don Hudson; Deputy City Manager Sara Singer; Planning Manager Aquilla Hurd-Ravich; Deputy City Recorder Nicole Morris; Information Services Manager Lance Harris; Associate Planner Cindy Hahn; Project Engineer Dayna Webb; Engineering Manager Kaaren Hofmann; Teen Program Specialist Julie Ludemann; Maintenance Services Division Manager Clayton Reynolds; Management Analyst Ben Bryant

A. CALL TO ORDER Pledge of Allegiance

Mayor Ogden called the meeting to order at 7:03 p.m.

B. ANNOUNCEMENTS

1. Tualatin Youth Advisory Council Update for February 2013

Members of the Youth Advisory Council (YAC) presented a PowerPoint on upcoming activities including Project F.R.I.E.N.D.S, which focuses on violence prevention and anti-bullying, and Arbor Week 2013. The YAC is in the process of completing the 2013 Youth Survey and should have results for Council at an upcoming meeting.

C. CITIZEN COMMENTS

This section of the agenda allows citizens to address the Council regarding any issue not on the agenda. The duration for each individual speaking is limited to 3 minutes. Matters requiring further investigation or detailed answers will be referred to City staff for follow-up and report at a future meeting.

Shanjian Li invited the Council to attend the upcoming Shen Yun Performing Arts event at Keller Auditorium in April. He also requested a proclamation from the City or a greeting letter. Mayor Ogden stated that he would have the City Manager look into the procedure for such a proclamation.

D. CONSENT AGENDA

The Consent Agenda will be enacted with one vote. The Mayor will first ask staff, the public and Councilors if there is anyone who wishes to remove any item from the Consent Agenda for discussion and consideration. The matters removed from the Consent Agenda will be considered individually at the end of this Agenda under, I) Items Removed from the Consent Agenda. The entire Consent Agenda, with the exception of items removed from the Consent Agenda to be discussed, is then voted upon by roll call under one motion.

MOTION by Council President Monique Beikman, SECONDED by Councilor Nancy Grimes to approve the consent agenda.

Vote: 7 - 0 MOTION CARRIED

1. Approval of the Minutes for the City Council Work Session and Regular Meeting on January 28, 2013
2. A Letter Supporting the City of Tualatin Partnering with Washington County on a Construction Excise Tax Grant Application to Complete Detailed Site Assessments for 21 Large Lot Industrial Sites within Washington County 4 of which are in Tualatin's Planning Area.

E. SPECIAL REPORTS

1. Quarterly Financial Update

Finance Director Don Hudson presented the quarterly financial report for the second quarter of Fiscal Year 2013. It was noted that revenues and expenditures in operating funds are tracking as expected with the building fund tracking higher as new projects break ground. He noted that the City supported six (6) outside agencies this quarter that provide services to citizens. Monies had also been distributed for additional temporary staffing to help the library continue to meet their service goals, centennial banners and artwork had been acquired, as well as the purchase of an Aqua Tech truck. Director Hudson stated that the Fiscal Year 2011-2012 audit had been completed and returned with "clean opinions." The fiscal year 2013-2014 budget process has begun and there will be a work session in April for direction from Council at that time.

Director Hudson presented information to the Council on Oregon Property Tax Reform. He noted that this is the League of Oregon Cities highest priority during this legislative session. A video was shown to help educate the Council and citizens on the issues being faced. After the video Director Hudson noted that he will follow-up with updates throughout the legislative session.

F. PUBLIC HEARINGS – Legislative or Other

1. Amending the Tualatin Development Code (TDC) Chapter 11 - Transportation - to Include the 2012 Tualatin Transportation System Plan (TSP). Amending Portions of TDC Chapters 1, 3, 31, 34, 38, 71, 73, 74, and 75 to Implement the TSP. Plan Text Amendment 12-02.

Mayor Ogden opened the public hearing at 7:32 p.m.

Mayor Ogden stated that tonight's public hearing will only be to hear public comment and will be continued on February 25th, 2013 to allow for proper notice of the hearing.

Community Development Director Alice Rouyer, Planning Manager Aquilla Hurd-Ravich, and Engineering Manager Kaaren Hofmann presented the 2012 Transportation System Plan (TSP). Planning Manager Hurd-Ravich reviewed the year long process of drafting the TSP. The Transportation Task Force met 16 times over the period of a year. The task force developed value statements, goals, objectives, and evaluation criteria, as well as reviewed existing conditions and future conditions. Through collaboration consensus was reached by the Task Force, Tualatin Parks Advisory Committee, the Planning Commission, and City Council based on community and work group feedback. The final product is a community led TSP that produced 80 new projects including 50 roadway, 18 bike and pedestrian, and 12 transit projects. All of which will come together to reduce congestion in 20 of the 30 city intersections.

Engineering Manager Kaaren Hofmann addressed public comments that had been submitted to the Community Development Department. She said the department had received over 30 comments all of which have been provided for the record. Engineering Manager Hofmann noted that any and all projects can be phased in over time and that projects can be reprioritized based on revenues and changing City priorities.

Mayor Ogden opened the floor to accept comments from the public.

Linda Moholt, representing the Tualatin Chamber of Commerce, presented a letter requesting further study of major projects needed in the TSP. She also entered a letter for the record from Legacy Meridian Park Hospital expressing concerns that the TSP did not go far enough to address health and safety concerns.

Jan Guinta thanked the Councilors for their hard work on the proposed TSP plan. Ms. Guinta served as a CIO representative on the Transportation Task Force and spoke in favor of the draft TSP and asked that the Council not make any further additions.

Kevin O'Malley expressed concerns with the draft TSP in relation to traffic congestion in Tualatin. Mr. O'Malley submitted a letter for the record on behalf of the Milgard Corporation. Mr. O'Malley expressed that he would like further studies to be completed before final adoption.

Cheryl Dorman spoke as a participant of the Task Force working on the draft TSP. Ms. Dorman originally voted in favor on the draft but is now concerned with the long term viability and the lack of solutions to alleviate congestion on Tualatin-Sherwood Road. Ms. Dorman advocated for a no vote on the plan as presented.

David Ney spoke in favor of the draft TSP.

Chad Darby encouraged the Council to vote in favor of the draft TSP as it currently stands. He expressed concerns over not replacing green space with traffic.

Doug Rasmussen supports the TSP without the inclusion of the Tualatin Road extension and the SE Hall Street extension.

John Howorth also a member of the Transportation Task Force, encouraged Council to engage the consultants to revisit several projects including the Hall Blvd connection and the bridge at 65th St. Mr. Howorth spoke in favor of further studies of all river crossings.

Wendy Kellington, attorney for the Tonquin Industrial Group, submitted a letter with several attachments highlighting several concerns with projects, specifically access to 124th St, in the draft TSP.

Ed Reed is in favor of the draft TSP and commends the City Council on the community outreach during the process.

Dorothy Moore, member of the Transportation Task Force, spoke in favor of the draft TSP as presented.

Del Moore spoke in favor of the draft TSP as presented.

Cathy Holland participated in the TSP update and encouraged approval of the draft without additional analysis.

Kathy Newcomb spoke in favor of the draft TSP and advocated for the Council to setup an ad hoc transit committee.

Mark Brown, Tonquin Industrial Group, expressed concerns with the draft TSP in regards to 124th Street.

Gail Hardinger would like the draft TSP to be further studied and look at options that compare past proposed projects to new proposed projects.

William Beers expressed concerns with changes in the new draft TSP not aligning with the current TSP.

Valerie Garrett submitted a letter for the record on behalf Portland General Electric expressing concerns with the draft TSP.

Robert Kellogg, president of the Ibach CIO, requested reprioritization of several projects. Mr. Kellogg specifically addressed project R29 which would create a connection from Tonquin Way to Avery Street and expressed the importance of a vehicular connection.

Callie Loser spoke in favor of the draft TSP and stated that the Hall Street extension and the expansion of Tualatin Road were debated and removed for a reason.

Reba Toby spoke in favor of the draft TSP as presented.

Joel Troccoli, McLane Food Service, expressed concerns with the draft TSP.

Jeff Dehan noted that the Planning Commission debated and voted to widen Boones Ferry north of Martinazzi but the study of other north south projects did not come to the Planning Commission.

Having heard all the public comment, Mayor Ogden noted that the public hearing will be continued on February 25th.

G. PUBLIC HEARINGS – Quasi-Judicial

H. GENERAL BUSINESS

I. ITEMS REMOVED FROM CONSENT AGENDA

Items removed from the Consent Agenda will be discussed individually at this time. The Mayor may impose a time limit on speakers addressing these issues.

J. COMMUNICATIONS FROM COUNCILORS

Councilor Bubenik announced on behalf of the Library Foundation that April 20th will be the annual Vine2Wine event from 7-9:30 p.m. Admission to the event is \$40 and he encouraged all to attend and support the Library. He also encouraged citizens to attend the Centennial Art Reception tomorrow night, February 12, at 7:00 p.m., to view the 18 pieces of artwork that the City purchased.

K. ADJOURNMENT

MOTION by Council President Monique Beikman, SECONDED by Councilor Frank Bubenik to adjourn the meeting at 9:06 p.m.

Vote: 7 - 0 MOTION CARRIED

Sherilyn Lombos, City Manager

Nicole Morris

/ Nicole Morris, Recording Secretary

_____ / Lou Ogden, Mayor



STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Nicole Morris, Deputy City Recorder

DATE: 02/25/2013

SUBJECT: Approval of Liquor License Renewals for 2013

ISSUE BEFORE THE COUNCIL:

The issue before the Council is to approve liquor license renewal applications for 2013. Copies have not been included with this staff report but are available at the City Offices for review.

RECOMMENDATION:

Staff respectfully recommends that the Council approve endorsement of the following liquor license applications renewals for 2013 as listed in attachment A.

EXECUTIVE SUMMARY:

Annually the Oregon Liquor Control Commission (OLCC) require all liquor licenses be renewed. According to the provisions of City Ordinance No. 680-86, establishing procedures for liquor license applicants, applicants are required to fill out a City application form, from which a review by the Police Department is conducted according to standards and criteria established in the Ordinance. The liquor license renewal applications are in accordance with all ordinances and the Police Department has conducted reviews of the applications.

According to the provisions of Section 5 of Ordinance No. 680-85 a member of Council or the Public may request a public hearing on any of the liquor license renewal requests. If such a public hearing request is made, a hearing will be scheduled and held on the license. It is important that any request for such a hearing include reasons for said hearing.

FINANCIAL IMPLICATIONS:

A renewal fee of \$35 has been paid by each applicant.

Attachments: [Attachment A- Liquor License Renewals 2013](#)

Liquor License Renewals 2013

Baja Fresh
Bambuza Vietnam Grill
Birra Deli
Boones Ferry Chevron
Buffalo Wild Wings
Bushwhackers Saloon
C.I. Bar & Grill
Chipotle Mexican Grill #1015
Claim Jumper
Club Sport
Dickie Jo's Burgers
Famous Dave's BBQ
Fiorano Ristorante
Fred Meyer #393
Fuddruckers
Game Time
Grampy's Corner Deli
Haggen Food and Pharmacy
Hayden's Lakefront Grill
Hot Seat Sports Bar
Jackson's #533 (Shell gas station)
La Isla Bonita
Lee's Kitchen
Marinepolis Sushi Land
Morso
Nacho Mama's
Native Foods
New York Ruben's
Outback Steakhouse
P.F. Chang's
Pastini Pastaria
Pizza Hut
Plaid Pantries
Qdoba Mexican Grill
Roxy's Island Grill
Royal Panda
Safeway #1047
Shari's
Silverado
Star's Cabaret
Sushi & Teriyaki
Sushi Train
Sushiville
Thai Bistro
The Grand Hotel

Tualatin Chevron
Tualatin Country Club
Tualatin Food Store
Tualatin Gas & Food
Tualatin Indoor Soccer
Tualatin Island Grill
Tualatin Valley Elks Lodge #2780
Walgreens
Whole Foods Market
Wu's Open Kitchen

City Council Meeting

D. 3.

Meeting Date: 02/25/2013

CONSENT AGENDA: Authorizing Metro IGA for Participation with Regional Illegal Dumping

CONSENT AGENDA

Authorization to Enter into an Intergovernmental Agreement (IGA) with Metro for the Regional Illegal Dumping Patrol (RID) Program.

SUMMARY

The City of Tualatin currently utilizes Intergovernmental Agreements (IGA) with outside agencies to increase efficiency and productivity in completing maintenance tasks. The City would like to enter into an Intergovernmental Agreement with Metro whose Regional Illegal Dumping patrol tackles the problem of illegal dumping on public property.

Metro's RID Patrol addresses the problem of illegal dump sites on public property in multiple ways: cleaning up dump sites, investigating evidence found at the dump sites, issuing citations to the guilty parties and working with law enforcement agencies and communities that need education and help to reduce dumping in their neighborhoods.

Illegal dumps diminish the quality of life and livability of the region. Dumps can pollute local waterways and groundwater or cause injury to residents. This IGA would allow the City of Tualatin to work closely with Metro to assure that illegal dump sites are thoroughly cleaned up and investigated. Metro provides illegal dump cleanup services on publicly owned land. Metro can assist private owners with investigation of illegal dumps on private property.

If Council authorizes the City Manager to enter into this IGA, the City of Tualatin's participation with Metro would not only be a time saver but would also save on the expenses of conducting cleanups on public property. These cleanups are also a safety issue for our employees and the ability to utilize the Metro program will lessen our employee's exposure. Utilizing a contract with Metro's RID Patrol in no way precludes the City of Tualatin from following the rules and regulations outlined in the Oregon Revised Statues regarding proper posting and notification as well as storage of unclaimed property.

Attachments

Metro IGA

INTERGOVERNMENTAL AGREEMENT

THIS AGREEMENT is made pursuant to the authority found in ORS 190.003-190.030 between City of Tualatin (hereinafter "the AGENCY") and METRO.

RECITALS

WHEREAS, the AGENCY is a political subdivision of the state of Oregon and is a unit of local government authorized to enter into intergovernmental agreements pursuant to ORS 190.010, et seq; and

WHEREAS, METRO is a municipal corporation formed and operating under ORS 268 et seq and the Metro Charter, and is a unit of local government authorized to enter into intergovernmental agreements pursuant to ORS 190.003-190.030; and

WHEREAS, the AGENCY desires to contract with METRO to clean up of solid waste at camping sites established by homeless individuals on public property ("unlawful campsites"), to be performed by supervised inmate work crews provided under contract to METRO by the Multnomah County Sheriff's Office ("MCSO") and the Oregon Department of Corrections ("ODOC"); and

WHEREAS, METRO, through the MCSO and ODOC inmate work crews, is able and prepared to provide the services required by the AGENCY under the terms and conditions set forth in this Agreement; therefore,

IN CONSIDERATION of those mutual promises and the terms and conditions set forth below, and pursuant to the provisions of ORS 190.003-190.030, the parties agree to be bound as follows:

CLEAN UP OF UNLAWFUL CAMPSITES

- 1. The following representatives of the AGENCY are authorized to submit written requests to METRO for METRO to clean up unlawful campsites:

Name: Tom Steiger Signature: _____
Name: Larry Braaksma Signature: _____
Name: Bert Olheiser Signature: _____

The following representative of the AGENCY is authorized to add to or change the names of persons authorized to submit written requests to METRO for METRO to clean up unlawful campsites:

Name: Kathy Kaatz, Program Coordinator - Operations
Email: kkaatz@ci.tualatin.or.us

- 2. The AGENCY shall submit all requests for METRO to clean up unlawful campsites in writing, using forms provided by METRO and substantially similar to Exhibit A to this agreement. Such forms shall be submitted to METRO's Solid Waste Compliance and Cleanup Division no less than three days prior to the posted cleanup date.

3. The AGENCY shall post notice of the impending cleanup and follow all other procedures set forth in ORS 203.077, 203.079, and 377.653 before METRO arrives to clean up an unlawful campsite. If the quantity of solid waste at a site is substantial, METRO may, at its own discretion, require the AGENCY to provide one or more drop boxes at the site at the AGENCY'S expense in order for the cleanup to proceed.
4. The AGENCY shall be responsible for assuring that unlawful campsites are vacated prior to scheduled METRO cleanups.
5. METRO shall clean up unlawful campsites as requested by the AGENCY provided that the AGENCY makes a written request under Paragraph 2 of this Agreement and provides all information METRO requires. At the time of the cleanup, METRO will collect all items it identifies as personal property and deliver them to the AGENCY for storage at the following location (see ORS 203.079(1)(d)).

Tualatin Police Department

8650 SW Tualatin Road

Tualatin, Oregon 97062

6. Unlawful Campsites Determined Too Unsafe to Clean Up
 - (a) Hazardous Materials. The clean up of unlawful campsites containing known or suspected hazardous materials is beyond the scope, skill, training, and experience of the inmate work crews used by METRO to clean up illegal campsites. METRO shall not clean up any unlawful campsite where known or suspected hazardous materials are present. In the event a METRO-contracted inmate work crew discovers known or suspected hazardous materials at an unlawful campsite, the work crew supervisor shall immediately cease cleaning up until the appropriate hazardous materials authority inspects the site and declares or makes it safe.
 - (b) Other Unsafe Conditions. METRO shall not clean up unlawful campsites where site conditions are judged by METRO, in METRO's sole discretion, to be unsafe. If a METRO-contracted inmate work crew discovers unsafe conditions at an unlawful campsite (including without limitation, difficult terrain, traffic safety issues, or the presence of homeless individuals), the work crew supervisor shall immediately cease cleaning up until the site is inspected and the work crew supervisor determines that the site is safe to clean up.
 - (c) METRO shall promptly notify AGENCY of any campsite that it determines is too unsafe to clean up.

CONTRACT COSTS

7. METRO shall be responsible for the costs it incurs in the performance of its responsibilities described in Paragraph 4 of this Agreement and for all other costs related to this Agreement

that METRO directly incurs. The AGENCY shall be responsible for all costs it incurs in the performance of its responsibilities described in Paragraph 3 of this Agreement and for all other costs related to this Agreement that the AGENCY directly incurs.

INDEMNIFICATION AND LIABILITY

- 8. The AGENCY shall indemnify, defend, and hold harmless METRO and METRO’s officers, employees, contractors, and agents from all claims, suits, actions, and expenses of any nature resulting from, arising out of, or regarding:
 - (a) the acts, errors, or omissions of the AGENCY, METRO, and the AGENCY’s and METRO’s officers, employees, and agents, acting pursuant to the terms of this Agreement, within the limits of the Oregon Tort Claims Act and the Oregon Constitution; and
 - (b) any actual, alleged, or implied failure of the AGENCY, METRO, and the AGENCY’s and METRO’s officers, employees, or agents, to comply with the provisions of ORS 203.077 and 203.079.

DISPUTE RESOLUTION

- 9. If a claim, controversy, or dispute arises out of this Agreement, the complaining party shall give written notification to the other party of the nature of the claim and the remedy requested within 10 days of the incident that forms the basis of the dispute.
- 10. The laws of the state of Oregon shall govern this Agreement. All claims, controversies or disputes that arise out of this Agreement shall be resolved by arbitration in accordance with the arbitration rules of the Arbitration Service of Portland or the American Arbitration Association. The party who first initiates arbitration shall designate an arbitration service by filing a claim in accordance with the rules of the organization selected. Such arbitration shall take place in Portland, Oregon, and any judgment upon the award rendered pursuant to such arbitration may be entered in any court having jurisdiction thereof.

CONTRACT ADMINISTRATION

- 11. METRO designates its Finance and Regulatory Services Department Director or designee to represent METRO in all matters pertaining to this Agreement.
- 12. Except as provided in paragraphs 2 and 6(c), any notice or notices provided for by this Agreement or by law to be given or served upon either party shall be given or served by certified letter, deposited in the U.S. mail, postage prepaid, and addressed to:

For the AGENCY

Kathy Kaatz, Program Coordinator
City of Tualatin - Operations
18880 SW Martinazzi Ave
Tualatin, Oregon 97062

For METRO

Roy W. Brower
 Solid Waste Compliance and
 Cleanup Manager
 METRO
 600 NE Grand Avenue
 Portland, Oregon 97232

CONTRACT TERM, MODIFICATION, TERMINATION AND OTHER STANDARD PROVISIONS

- 13. This Agreement shall be effective beginning on the day it is fully executed by both parties and shall continue in effect through June 30, 2016, unless extended by written amendments signed by authorized representatives of both parties.
- 14. Either party to this Agreement may terminate said Agreement by giving the other party not less than 30 days written notice.
- 15. This Agreement constitutes the entire agreement between the parties and may be modified or amended only by agreement of the parties. Any modification to this Agreement shall be effective only when incorporated herein by written amendments and signed by authorized representatives of both METRO and the AGENCY.
- 16. All terms and conditions necessary to be inserted into public contracts in the state of Oregon are hereby incorporated as if such provisions were a part of this Agreement. Specifically, it is a condition of this Agreement that the AGENCY and all employers working under this Agreement are subject employers that will comply with ORS 656.017.
- 17. The AGENCY shall not assign, delegate, or subcontract any of its responsibilities under this Agreement without prior written consent from METRO.
- 18. If any provision or term of this Agreement is determined to be invalid or unenforceable, the remainder of the Agreement is valid and enforceable to the full extent of the law.
- 19. This Agreement shall not be deemed to vest in any third party any rights, nor shall it be deemed to be enforceable by any third party in any legal, equitable, or administrative proceeding whatsoever.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly appointed officers on the date written below.

AGENCY: City of Tualatin

METRO

By: _____
Sherilyn Lombos, City Manager

By: _____
Tim Collier,
Finance & Regulatory Services Dept. Dir.

Date: _____

Date: _____

By: _____

Date: _____

APPROVED AS TO FORM:

APPROVED AS TO FORM:

AGENCY Attorney

Metro Attorney

By: _____
Sean T. Brady
City Attorney

By: _____
Michelle A. Bellia
Senior Metro Attorney

Date: _____

Date: _____

S:\REM\kraten\Contracts\Transient Camp\IGA_Template-012713.doc



METRO

UNLAWFUL CAMPSITE CLEAN-UP REQUEST & APPROVAL FORM

The top part of this form must be completed by the agency requesting the clean up and submitted to Barb Leslie of Metro (barb.leslie@oregonmetro.gov, phone 503-797-1835 fax 503-813-7544) at least three working days prior to the requested clean-up date. All sections of the form must be completed.

CLEAN-UP REQUEST

Name of agency making this request _____

Date _____

Provide a detailed description of the location of the camp to be cleaned up.

Public Property Yes No

Is the site presently occupied by transients? Yes No

Proposed date of posting _____

Proposed date of the clean-up _____

Describe any services or equipment (e.g. the number and size of any drop boxes or trucks) being provided by the requesting agency.

Name and cell phone number of Officer to contact if site is occupied when clean-up crew arrives.

In requesting this clean-up, I certify that the agency I represent will meet all of the obligations set forth in its Intergovernmental Agreement with Metro for the clean-up of unlawful campsites.

Print name & title of Person Authorized by IGA to request a cleanup _____

Signature of Authorized Person _____

Phone _____

METRO APPROVAL FOR CLEAN-UP

Approved: A clean-up is scheduled for _____ Denied:

Comments:

Name
SK:bjl

Date _____



STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Kaaren Hofmann, Engineering Manager
Alice Rouyer, Community Development Director

DATE: 02/25/2013

SUBJECT: Resolution Adopting the February 2013 Update to the Public Works Construction Code

ISSUE BEFORE THE COUNCIL:

Shall the City Council adopt the February 2013 Update of the Public Works Construction Code?

RECOMMENDATION:

Staff recommends that the City Council adopt the attached resolution updating the Public Works Construction Code.

EXECUTIVE SUMMARY:

The City of Tualatin's Public Works Construction Code (PWCC) is adopted by the City Council. The PWCC provides a 'one source' point to address the issues, questions, and concerns that typically accompany work on public improvements. This document addresses the design requirements, standards and materials that are acceptable for use on City of Tualatin projects and specifications on public improvements (specifically potable water, sanitary sewer, storm drain, transportation facilities, and franchise utilities).

The single change being proposed to the PWCC is in the sidewalk section, adding a new paragraph D. As a part of the Town Center planning and construction, an updated sidewalk standard was implemented. This standard includes tree wells and tree grates instead of planter strips. These standards were never adopted into the Public Works Construction Code for future development to follow. This revision would insert the required language to expand the sidewalks to 10 feet wide and require tree wells and grates and provides a standard drawing for tree grate installation (514). This revision originally came to the City Council in August 2012. At that time the Council was concerned about providing options to owners on the type of grate installed but wanted to make sure there was a consistent aesthetic. In response, Staff developed a standard drawing and provided 2 different types of grates. The possibilities are updated continuously so there is still an option for the owner to propose a different grate for approval.

RESOLUTION NO. _____

RESOLUTION ADOPTING THE FEBRUARY 2013 UPDATE OF
THE PUBLIC WORKS CONSTRUCTION CODE

WHEREAS the Public Works Construction Code (PWCC) was adopted by resolution on October 8, 2001, and subsequently amended on February 11, 2002; October 14, 2002, March 10, 2003, March 22, 2004, October 25, 2005, March 24, 2008, April 12, 2010, July 26, 2010 and September 26, 2011; and

WHEREAS the Engineering Division has completed an update to the language of the text to specify 10' sidewalks and tree grates in the Town Center and added a standard drawing (514) for tree grates; and

WHEREAS pursuant to Section 2 of Ordinance 444-78 the City Engineer has the duty to maintain and update the Code; and

WHEREAS the City Council must first approve the proposed changes.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON, that:

Section 1. The following is added to Section 2.3.2.14 of the PWCC:

D. In the Town Center, the sidewalks shall be 10-feet wide and, rather than a planter strip, shall have tree wells. These wells shall have a grate per Standard Drawing 514. These grates shall be installed per manufacturers recommended specifications and additional details as identified by the Project Engineer.

Section 2. Standard Drawing 514 is added to the PWCC, as set forth in Exhibit A, which is attached and incorporated by reference.

Section 3. This resolution is effective upon adoption.

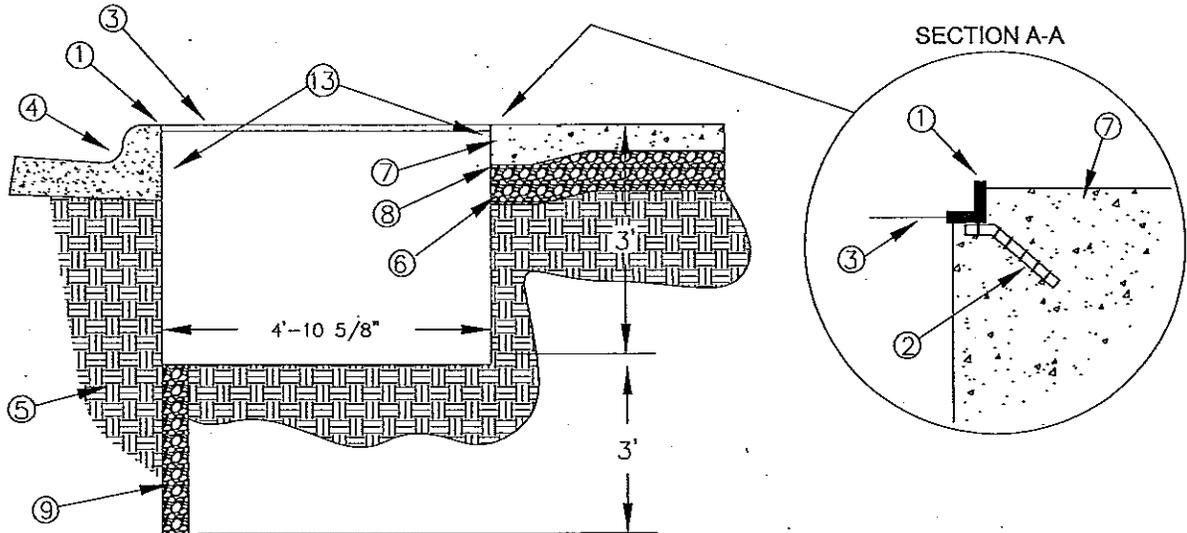
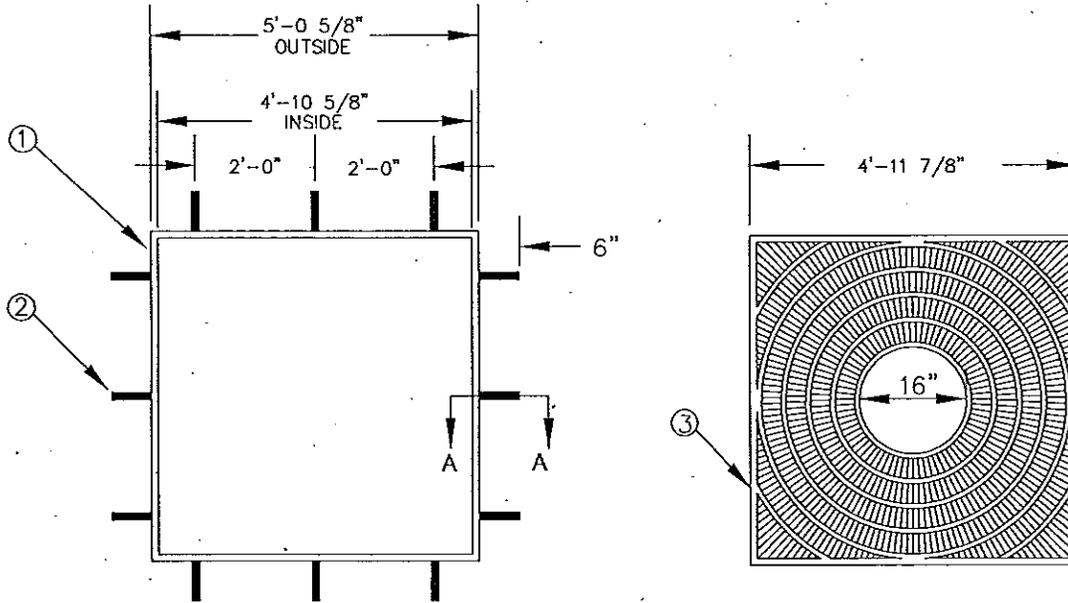
INTRODUCED AND ADOPTED this 25th day of February, 2013.

CITY OF TUALATIN, OREGON

BY _____
Mayor

ATTEST:

BY _____
City Recorder



Notes:

1. 1" X 1" X 1/4" L SHAPE STEEL FRAME.
2. #3 REBAR, WELD TO FRAME
3. 3/4" THICK TREE GRATE CAST IN 2 PIECES, NO OPENINGS GREATER THAN 3/8", 16" DIA CENTER OPENING
4. CURB AND GUTTER, REFER TO COT DRAWING NO. 470 OR NO. 471 AS APPLICABLE.
5. COMPACTED SUBGRADE.
6. MINIMUM 2" LAYER OF COMPACTED 3/4" MINUS CLEAN CRUSHED AGGREGATE.
7. 4" CONCRETE SIDEWALK, REFER TO COT DRAWING NO. 475.
8. THICKENED EDGE (6" X 6")
9. 4" DIAMETER X 3' DEEP AUGERED HOLE WITH 4" RIGID PVC PERFORATED PIPE. FILL PIPE WITH DRAIN ROCK AND COVER WITH FILTER SOCK.
10. TREE GRATE SHALL BE SQUARE 5' FAN DESIGN (W/ FLAT BLACK POWDER COAT), URBAN ACCESSORIES, POLY-GRATE II, OR APPROVED EQUAL.
11. TREE GRATE SHALL BE CAST IRON PER ASTM A-48 CLASS 36, RECYCLED PLASTIC, OR APPROVED EQUAL.
12. TREE GRATE FRAME SHALL BE TYPE "S" FRAME, URBAN ACCESSORIES OR APPROVED EQUAL.
13. A ROOT CONTROL SYSTEM, BIOBARRIER, DEEPROOT, OR APPROVED EQUAL, SHALL BE INSTALLED ON ALL SIDES ADJACENT TO HARDSCAPE. IT SHALL BE INSTALLED VERTICALLY A MINIMUM OF 12" IN DEPTH FROM FINISH GRADE & PER MANUFACTURERS RECOMMENDATIONS.



**CITY OF
TUALATIN, OR**

TREE WELL AND GRATE

REVISED: 01/2013
VALID: 01/2013

SCALE: N.T.S.

DRAWN: JLS
APPROVED: KH

DWG NO. 514

City Council Meeting

E. 2.

Meeting Date: 02/25/2013

SPECIAL REPORTS: Tualatin Heritage Center Annual Report

SPECIAL REPORTS

Tualatin Heritage Center Annual Report

SUMMARY

In 2005, the City of Tualatin, Tualatin Development Commission, and the Tualatin Historical Society partnered to create the Tualatin Heritage Center in the old Methodist Church building which was relocated to the Sweek Pond site and renovated for public use.

The Agreement for Operation of the Tualatin Heritage Center contains a provision that the Tualatin Historical Society provide the City an annual report of its Heritage Center operations. Presentation of the attached report fulfills this obligation.

The partnership between the City of Tualatin and the Tualatin Historical Society has proven to be successful and has assisted in preserving a historic structure for public use and to provide a venue for historical, cultural, and environmental education, recreation and enrichment, and social gatherings.

There are no new issues associated with operation of the Heritage Center that currently require Council action.

Attachments

2012 Tualatin Heritage Center Annual Report

2012 Tualatin Heritage Center Annual Report



Hours of operation: 10 a.m. to 2:00 p.m. weekdays and by special arrangement.

Seventh anniversary of a successful City/THS partnership



- THS produces Centennial “You Are There” show on February 17 (but held at Winona Grange to handle larger audience)
- Planning begins for Heritage Center exhibit redesign
- Visitation to Center climbs to 9,000 in calendar year 2012, many coming more than once
- Budget remains steady and balanced

Our mission is unchanged

- Education and Lifelong Learning
- Heritage and Cultural Awareness
- Personal Growth and Enrichment
- Civic Engagement
- Environmental Awareness
- Performing and Visual Arts
- Business Functions
- Family Celebrations

Local History and Heritage



- 2013 Centennial of Tualatin's incorporation draws on THS resources.



- Professional museum consultant designing new exhibit configuration.
- Daytime and evening history-oriented programs gain in popularity.

- Grand Ronde Tribe shares cultural history at Center's anniversary celebration.



- Committee works to install signage for Tualatin historical properties.

Education and Lifelong Learning



- Pioneer Days for all fourth graders in Tualatin public elementary schools
- Partnership with Ice Age Floods Institute grows
- Installation of markers for THC glacial erratics along Ice Age Discovery Trail
- Research and multi-media library on Tualatin history; bookstore

Civic Engagement

- Community meetings, such as Citizen Involvement Organizations (CIOs)
- Neighborhood association meetings
- Kiwanis Club awards dinner
- Tualatin Tomorrow and other city-related meetings

Personal Growth and Enrichment

Knitting group grows from 3 persons our first year to over 20 wanting to learn from each other.



Environmental Awareness

- Monthly birdwalks around Sweek Pond led by The Wetlands Conservancy
- Kids return to Heritage Center in September to harvest from their 4th grade garden
- More Tualatin Mastodon bones loaned to THS from University of Oregon



Performing and Visual Arts



- Monthly art classes by popular watercolor artist Linda Aman expand
- Women of Watercolor group meets monthly
- “Mask and Mirrors” community theatre stages benefit play for THC
- Second Wednesday lunchtime Celtic music concerts create following



New and Coming

- A more professional design to update Heritage Center image and exhibits will soon emerge
- Tualatin Historical Society and Heritage Center will be more visible during the Centennial with activities like the family-oriented Tualatin Discovery Challenge and signage for historic properties
- Collaboration with City and Chamber of Commerce on Ice Age Tourism Plan continues
- Targeted fundraising for new ways to interpret Tualatin history

Tualatin Historical Society Board and Staff

Board:

Art Sasaki, President

Kurt Krause, Vice-President

Loyce Martinazzi, Secretary

Barbara Stinger, Treasurer

Yvonne Addington, Evie Andrews, Doris Gleason,

Larry McClure, Norm Parker, Rochelle Smith

Staff:

Larry McClure, Tualatin Heritage Center, Director

Lindy Hughes, Tualatin Heritage Center, Assistant Director

2012 Tualatin Heritage Center Annual Report



City of Tualatin - Thank you for your support!

City Council Meeting

E. 3.

Meeting Date: 02/25/2013

SPECIAL SW Martinazzi Avenue Project
REPORTS:

SPECIAL REPORTS

SW Martinazzi Avenue Project

SUMMARY

Construction on SW Martinazzi Avenue will occur this summer. An Open House will be held on March 5, 2013 in the Library Community Room at 3:30 pm. Come see what the project is all about and learn about the construction impacts.

Attachments

A - Powerpoint

Martinazzi Avenue Project

February 25, 2013





Background

- **Project Purpose:**
 - **Replace water line** - Nyberg Street to north of the Tualatin River
 - **Replace sewer line** - Seneca Street to Boones Ferry Road
 - **Rebuild pavement** - south of Nyberg Street to Boones Ferry Road
 - **Replace traffic signal** - Nyberg/Martinazzi Avenue
 - **Replace catch basins**

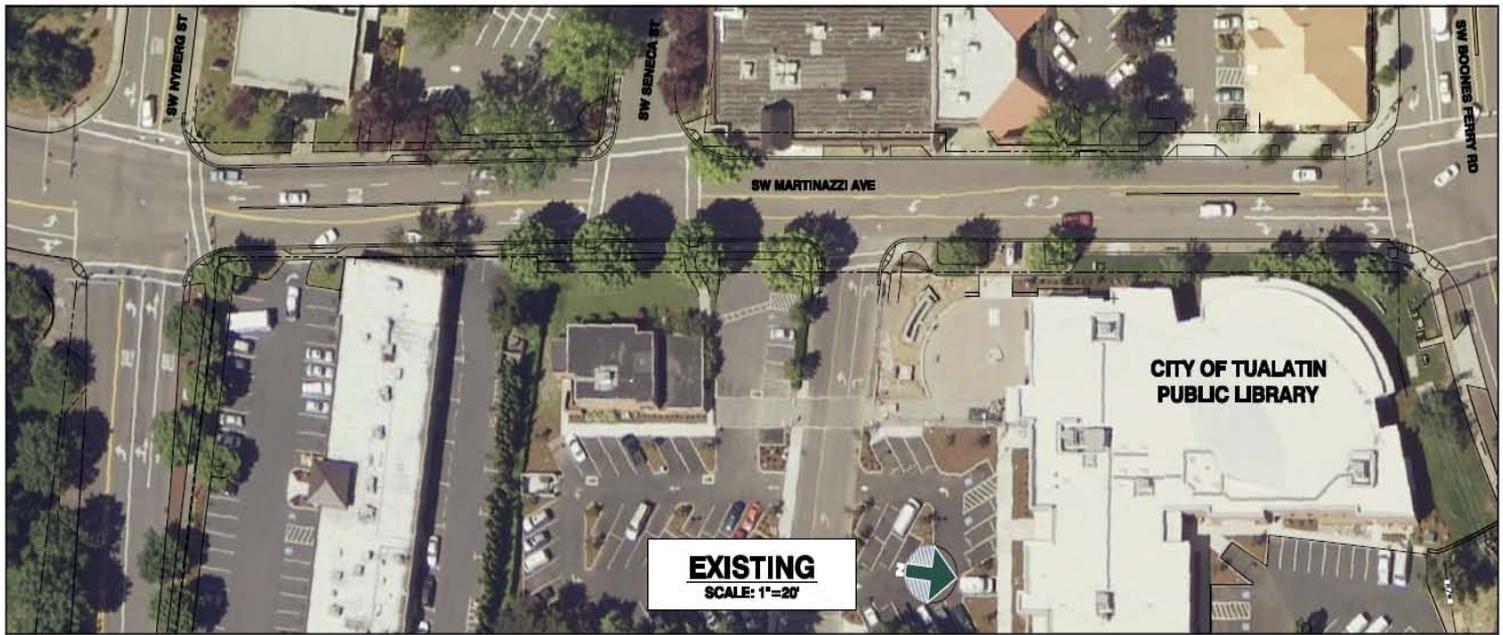




Where we are..

- Design work started March 2012 - 95% complete
- Property owners meetings
- Easements
- Permitting







Impacts

- **Construction Impacts –**

- Martinazzi Avenue will be closed for 1 month



Next Steps

- **Open House –**

March 5th at 3:30 pm in the Library
Community Room

- **Council Action on Parking &
Bidding**

March/April

- **Out to Bid in April**

- **Under Construction – Summer 2013**





STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Cindy Hahn, Associate Planner
Alice Rouyer, Community Development Director

DATE: 02/25/2013

SUBJECT: Continuation of Public Hearing on Plan Text Amendment 12-02. Amending the Tualatin Development Code (TDC) Chapter 11 - Transportation - to include the 2012 Tualatin Transportation System Plan (TSP). Amending Portions of TDC Chapters 1, 3, 31, 34, 38, 71, 73, 74, and 75 to Implement the TSP.

ISSUE BEFORE THE COUNCIL:

At tonight's meeting, Council will continue the public hearing and consider Plan Text Amendment (PTA) 12-02 to:

- Amend Tualatin Development Code Chapter 11 - Transportation - to include the 2012 Tualatin Transportation System Plan (TSP).
- Adopt the Transportation System Plan as a Supporting Technical Document to the Tualatin Development Code.
- Adopt specific amendments to development requirements in the TDC to fully implement the TSP including targeted amendments to:
 - Chapter 1, Administrative Provisions;
 - Chapter 3, Technical Memoranda;
 - Chapter 31, General Provisions;
 - Chapter 34, Special Regulations;
 - Chapter 38, Sign Regulations;
 - Chapter 71, Wetland Protection District;
 - Chapter 73, Community Design Standards;
 - Chapter 74, Public Improvement Requirements; and
 - Chapter 75, Access Management on Arterials.

RECOMMENDATION:

Staff recommends that Council consider the staff reports of February 11 and February 25, 2013, for PTA-12-02. If Council directs staff to prepare an ordinance granting the amendment, the ordinance can be presented as an item under General Business at tonight's Council meeting.

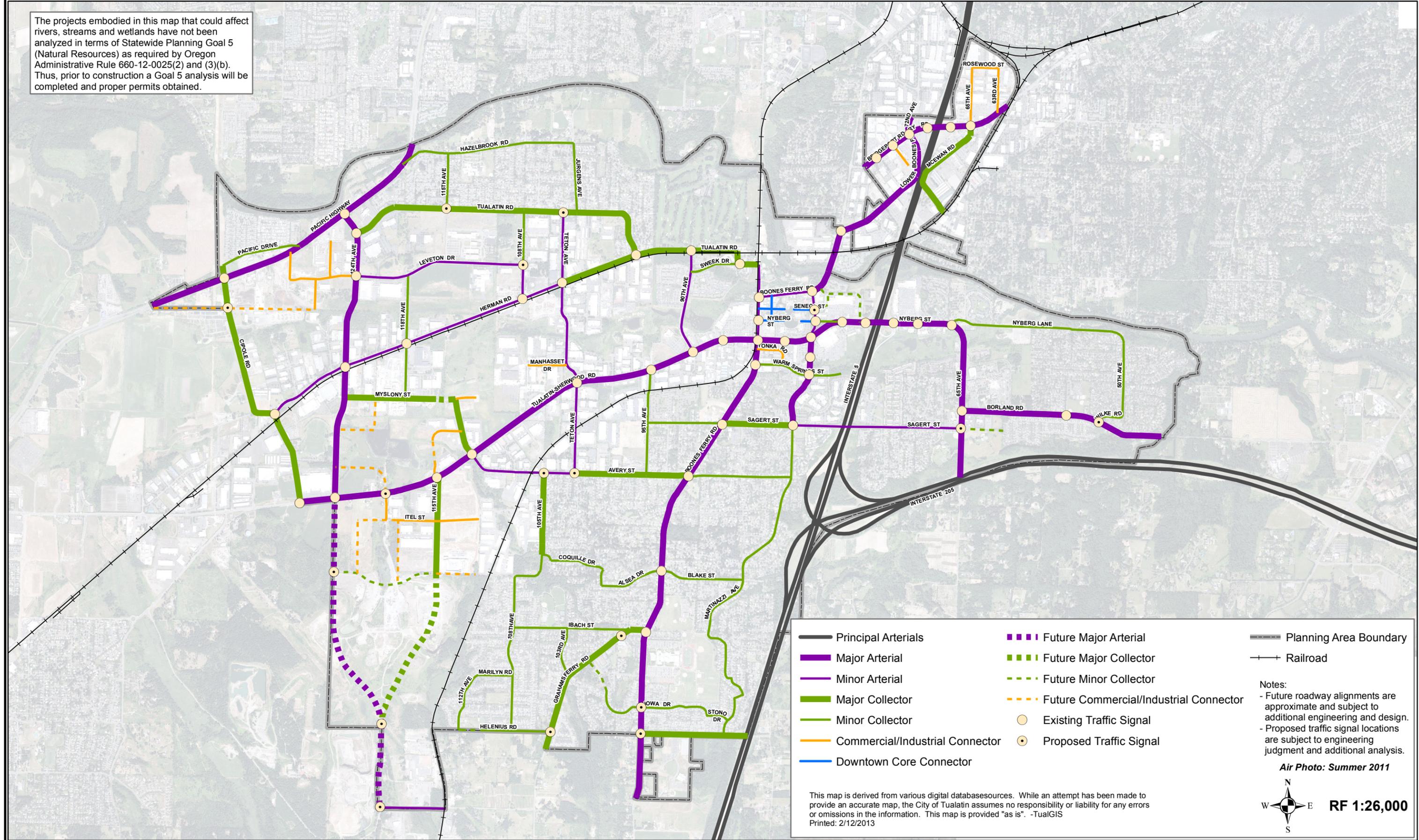
EXECUTIVE SUMMARY:

- The public hearing on PTA-12-02 to the Tualatin Development Code (TDC) was opened during the February 11, 2013 Council meeting. The February 11, 2013 staff report and attachments were entered into the record at that time, public testimony was taken, and the hearing was continued to the February 25, 2013 Council meeting.
- The proposed text amendment and associated figures were included in the attachments to the February 11, 2013 staff report. No changes have been made to the amendment language since February 11; however, minor modifications have been made to three of the figures. The updated figures are included in this staff report as Attachments A-C.
- A few changes have been made to the text of the TSP in response to the compliance letter received from Metro and to correct a scrivener's error. These changes are recorded in the change log included as Attachment D.
- Comments received between February 12 and 25 (3:00 pm) and responses are included in the comment log (Attachment E). A summary of comments will be presented to Council at tonight's meeting.
- A Notice of Hearing for February 11 and 25, 2013, was posted on February 1, 2013; the Affidavit of Posting is included as Attachment F.
- A Notice of Hearing for February 11 and 25, 2013, was published in The Oregonian on February 5, 2013, and in The Times on February 7, 2013. Affidavits of Publication are included in Attachments G and H, respectively.

Attachments:	<u>A. Figure 11-1 Functional Classification and Traffic Signal Plan</u>
	<u>B. Figure 11-2 Metro Regional Street Design System</u>
	<u>C. Figure 11-4 Bicycle and Pedestrian Plan</u>
	<u>D. Change Log After February 11, 2013</u>
	<u>E. Comment Log February 12-25, 2013</u>
	<u>F. Affidavit of Posting</u>
	<u>G. Affidavit of Publication - Oregonian</u>
	<u>H. Affidavit of Publication - Times</u>

Figure 11-1: Functional Classification and Traffic Signal Plan

The projects embodied in this map that could affect rivers, streams and wetlands have not been analyzed in terms of Statewide Planning Goal 5 (Natural Resources) as required by Oregon Administrative Rule 660-12-0025(2) and (3)(b). Thus, prior to construction a Goal 5 analysis will be completed and proper permits obtained.



— Principal Arterials	■ Future Major Arterial	--- Planning Area Boundary
■ Major Arterial	■ Future Major Collector	—+— Railroad
■ Minor Arterial	--- Future Minor Collector	
■ Major Collector	--- Future Commercial/Industrial Connector	
■ Minor Collector	● Existing Traffic Signal	
■ Commercial/Industrial Connector	● Proposed Traffic Signal	
■ Downtown Core Connector		

Notes:
 - Future roadway alignments are approximate and subject to additional engineering and design.
 - Proposed traffic signal locations are subject to engineering judgment and additional analysis.

Air Photo: Summer 2011

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
 Printed: 2/12/2013

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Figure 11-2: Metro Regional Street Design System

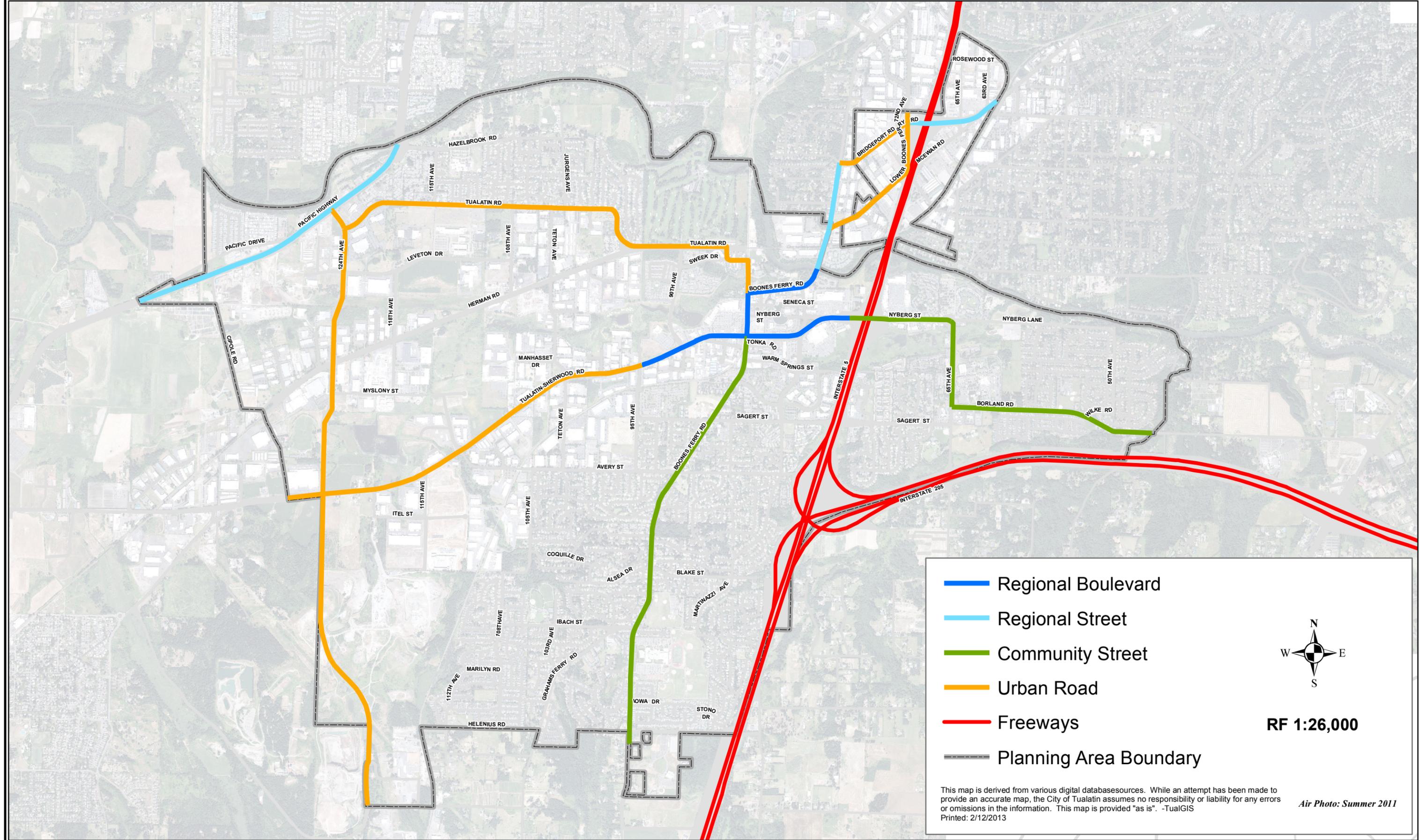
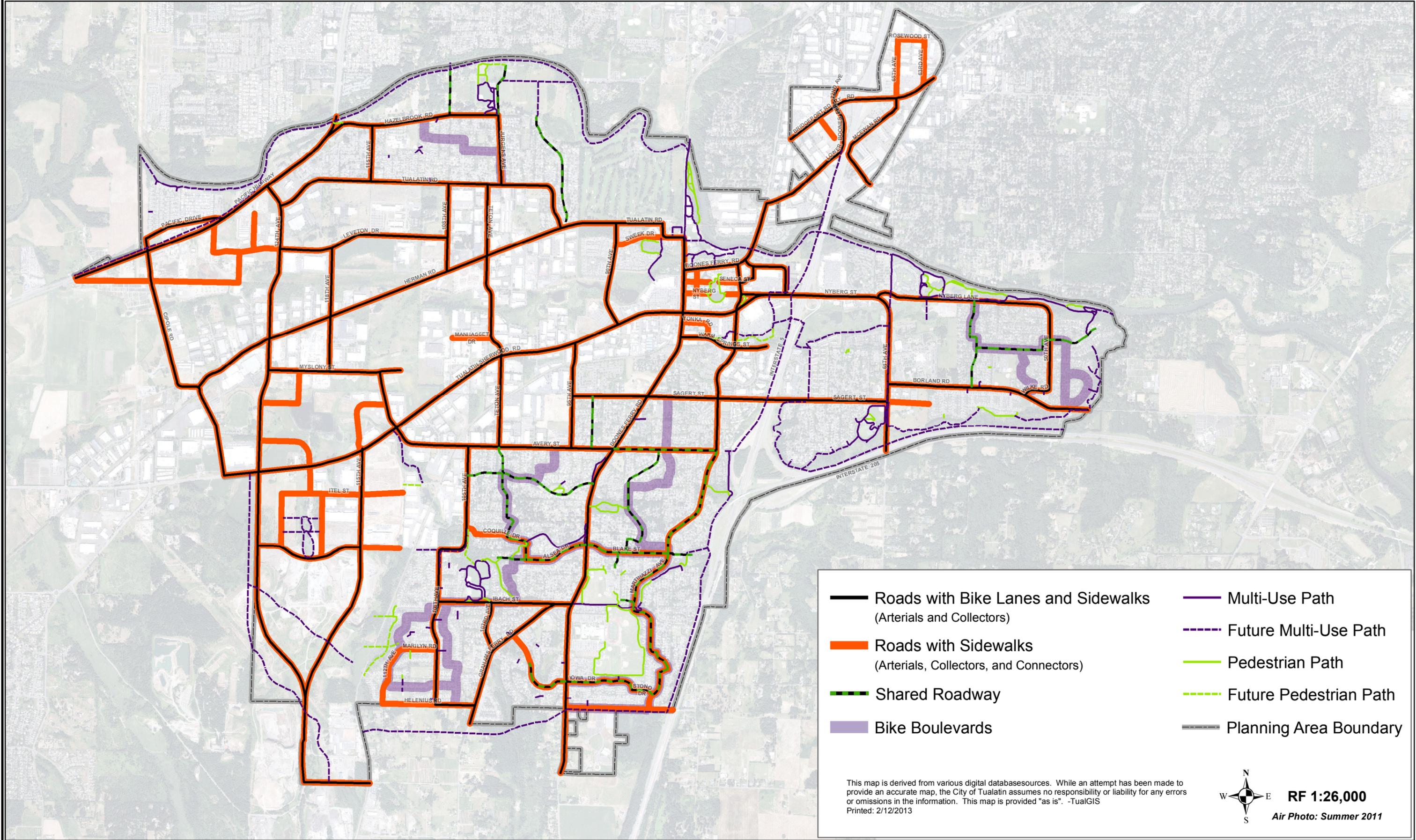


Figure 11-4: Bicycle and Pedestrian Plan



- | | |
|---|--|
|  Roads with Bike Lanes and Sidewalks
(Arterials and Collectors) |  Multi-Use Path |
|  Roads with Sidewalks
(Arterials, Collectors, and Connectors) |  Future Multi-Use Path |
|  Shared Roadway |  Pedestrian Path |
|  Bike Boulevards |  Future Pedestrian Path |
| |  Planning Area Boundary |

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
Printed: 2/12/2013

TSP Staff Recommended Changes since February 12, 2013

Updated: February 15, 2013

1 Environmental Justice

-Appendix D: add attached Environmental Justice document at the end

2 Performance Metrics

-After page 98: add attached Performance Metrics document

3 Renaming Appendix F to TPR and RTFP Compliance

-Contents Page: Rename Title to TPR and RTFP Compliance

-Appendixes Contents Page: Rename Title to TPR and RTFP Compliance

-Appendixes Divider Page: Rename Title to TPR and RTFP Compliance

-Update contents of Appendix to only include TPR and RTFP Compliance tables; delete other text

4 Modifications to Appendix D Alternatives Analysis

-Added: Additional Technical Data

5 Modifications to Appendix G Public Involvement Process

-Added: Transportation Task Force Presentation & Handouts

Environmental Justice

The Tualatin TSP considered the needs and impacts of its projects and policies to environmental justice populations as consistent with Executive Order 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), the United States Department of Transportation (US DOT) Order on Environmental Justice (Order 5610.2), and Title VI of the Civil Rights Act. Executive Order 12898 requires that “impacts to low-income and minority populations be evaluated to determine if such populations bear an undue burden of high and adverse impacts caused by the action.”¹ The policy of the DOT Order promotes the principles of environmental justice in all DOT programs.²

US DOT Order 5610.2 requires that agencies accomplish the following:

- Explicitly consider human health and environmental effects related to transportation projects that may have a disproportionately high and adverse effect on minority or low-income populations.
- Implement procedures to provide “meaningful opportunities for public involvement” by members of those populations during project planning and development (US DOT Order 5610.2, Section [§] 5[b][1]).

The US DOT Guidance defines the term “minority” as a person who is:

- Black (having origins in any of the black racial groups of Africa);
- Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
- Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands);
- American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition); or
- Native Hawaiian or Other Pacific Islander (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands).

The US DOT Guidance defines the terms “low-income” and “low-income population” as:

- Low-Income means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.

¹ President Clinton (02/11/1994). *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Available online at <http://www.epa.gov/fedrgstr/eo/eo12898.pdf>

² Department of Transportation (10/30/1997). *Department of Transportation Order 5610.2(a): Final DOT Environmental Justice Order*. Available online at http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/order_56102a/

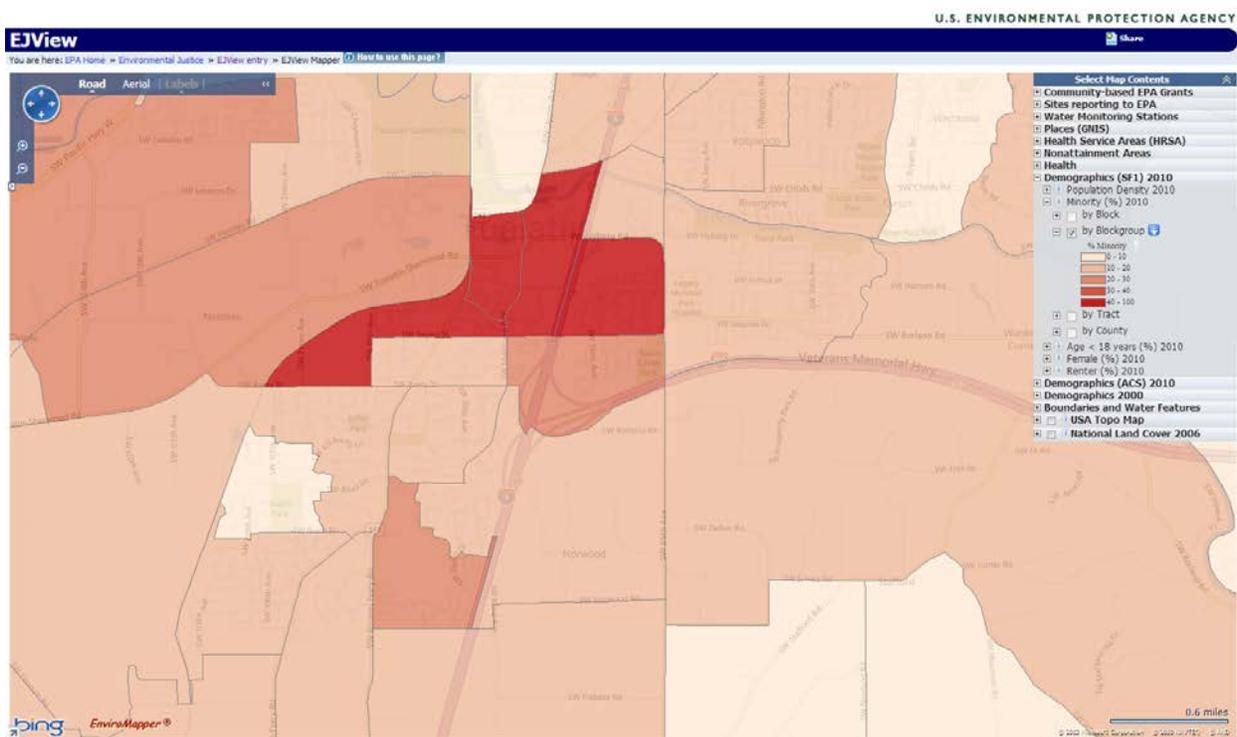
- Low-Income Population means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

Title VI of the Civil Rights Act of 1964 requires that “no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

In addition, Metro’s Regional Transportation Functional Plan directs local TSPs to outreach to and identify effects of potential projects to “transit dependent” populations – including households with zero vehicles at home, those under 16 and above 65 years of age, and those with a physical disability that impacts travel.

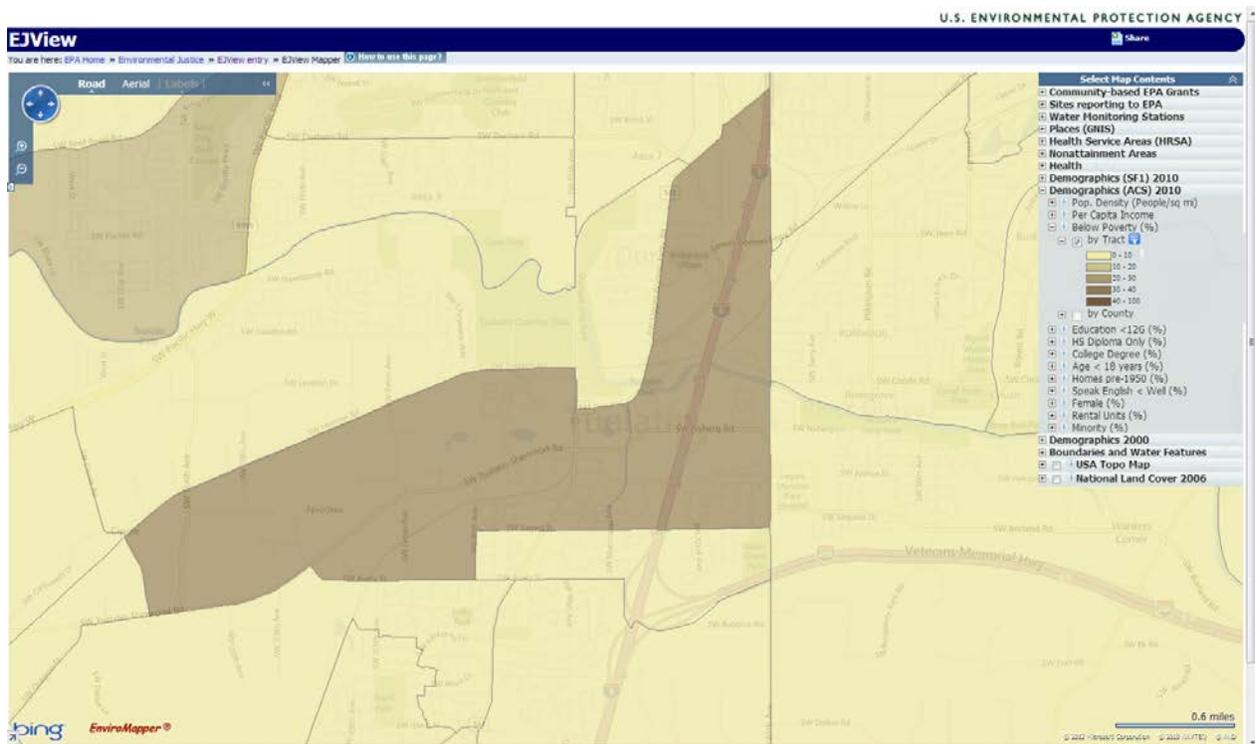
Documentation of Populations and Needs

At the beginning of the TSP process, the public involvement team documented the demographics and character of Tualatin in a memo dated March 2011. This memo documented that approximately 8 percent of families lived below the poverty level in Tualatin. Additionally, the majority (85 percent) of residents in Tualatin identify themselves as white/Caucasian; with 18 percent identifying themselves as Hispanic or Latino, and 15 percent of the population is foreign born. As per the U.S. Census Bureau 2010 Decennial Census approximately 10 percent of the population speaks Spanish at home and speak English less than “very well.”



According to the 2010 Census block group data, concentrations of minority populations (40 percent or more) are located near downtown in the area east of I-5 between SW Nyberg Road, SW 65th Avenue, and SW Sagert Street. Other concentrations of minority populations occur west of I-5 between the river and SW Sagert Street, extending west to the railroad. The screen capture from the United States Environmental Protection Agency EJ View mapping tool show the areas of minority concentrations below. These areas of high minority concentrations also have high percentages of renter-occupied housing.

Household poverty data is reported at a larger scale than the minority data in the 2010 American Community Survey (ACS) three year data, and there are two census tracts with higher concentrations of households below the poverty line compared to the rest of the City. These two tracts are located along I-5 between SW Sagert Street and the northern City limits near Bridgeport Village where roughly 28 percent of households are below the poverty line, and the tract encompassing SW Tualatin-Sherwood Road west of SW Martinazzi Avenue and south of SW Herman Road and North of SW Avery Street where around 22 percent of households are below the poverty line. The remainder of the City has between 0 and 10 percent of householders below the poverty line.



Outreach

These environmental justice populations were documented and considered at the outset of the project to ensure the public involvement process provided adequate opportunities for these populations to be involved in the process. Several techniques were used to meet the needs of these identified groups.

- A banner was hung near the center of identified concentration areas at Tualatin Sherwood Road and Martinazzi to announce public events.
- Public meetings were held in locations near the center of the City, near these concentrations, and near bus routes. Meeting locations were ADA accessible.
- Food was provided at meetings.
- Children’s activities were provided at meetings.
- Imagery and videos were used to explain project information so it would be accessible for all people.

Interviews with leaders in the Latino community held early in the process suggested several ways to engage the Spanish-speaking population of Tualatin. Following these suggestions, the project team:

- Made materials available in English and Spanish
- Visited bilingual Parent-Teacher organization at Bridgeport Elementary
- Provided materials at the library because families attend library events
- Shared information at local ESL classes
- Contacted local churches (Tualatin Spanish Seventh-day Adventist Church and Esperanza Iglesia)
- Left materials at local Hispanic businesses.

The team conducted interviews with Tualatin's Youth Advisory Council during development of the Public Involvement Plan. During the process of developing the plan, staff provided project updates in several local venues including at the Tualatin Senior Center."

Evaluation

The evaluation framework and the alternatives analysis process included consideration of equity impacts. Goal 4 of the TSP was equity: consider the distribution of benefits and impacts from potential transportation options, and work towards fair access to transportation facilities for all users, all ages, and all abilities. There were two objectives:

1. Promote a fair distribution of benefits to and burdens on different populations within the City (that is, low-income, transit-dependent, minority, age groups) and different neighborhoods and employment areas within the City.
2. Consider access to transit for all users.

All potential transportation investments considered in the Tualatin TSP process were evaluated in relation to this goal and the two objectives. Each project idea was scored in particular against population groups around and within the city, areas with low incomes and/or high minority populations, and the transit dependent population (e.g., zero vehicle households, those under 16 or over 65, and those with a physical disability). The full results of those evaluations are included in the alternatives analysis documentation. The end recommendations were assessed for broad distribution of benefits and effects to all populations including minority, low-income (as identified above) as well as geographic distribution – the conclusions were that the TSP provides multimodal investments throughout all sections of the city. Many of the recommendations will benefit these populations by providing safe walking areas, expanded transit service, intersection safety improvements, and multi-use pathways.

Performance Measures

Metro's *Regional Transportation Plan* requires the following performance measures in a City's TSP: safety, vehicle miles traveled per capita, freight reliability, congestion, and walking, bicycling and transit mode shares to evaluate and monitor performance of the TSP. The Table below includes the measure categories, the specific performance measures for the Tualatin TSP, the applicable system deficiencies, and the associated TSP projects that help address the deficiencies, and thus, help meet the performance measures.

Category	Metro's 2035 Performance Metrics	Tualatin TSP Performance Measure	Tualatin System Deficiencies	Tualatin TSP projects that address the deficiencies
Safety	By 2035, reduce the number of pedestrian, bicyclist, and motor vehicle occupant fatalities plus serious injuries each by 50% compared to 2005.	<p>Reduce fatalities for drivers, walkers, and bikers from existing conditions</p> <p>Address known deficiencies and high-accident areas as high-priority projects</p> <p>Reduce the number of County and State SPIS sites within the City.</p>	<p>The three high crash locations in Tualatin are Tualatin-Sherwood Road/ Boones Ferry, Tualatin-Sherwood Road/ Martinazzi, and SW Nyberg Street/I-5 Southbound ramps.</p> <p>The first two of these roads are also on the Washington County's SPIS list along with the Lower Boones Ferry and Bridgeport intersection. ODOT's nearby SPIS locations are limited to I-5 and OR 99W.</p>	Projects at the Nyberg interchange and I-5 will improve safety for bicyclists and pedestrians. The suite of intersection upgrades at Tualatin-Sherwood Road/ Boones Ferry and Tualatin-Sherwood Road/Martinazzi will address both congestion and safety. Completing the multi-use path network and bicycle improvements near Lower Boones Ferry and Bridgeport will reduce conflicts between vehicles and bicyclists and improve safety for all users.

Category	Metro's 2035 Performance Metrics	Tualatin TSP Performance Measure	Tualatin System Deficiencies	Tualatin TSP projects that address the deficiencies
Congestion	By 2035, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2005	<p>On Washington County and ODOT owned roads the v/c is less than or equal to 0.99</p> <p>On City roads, LOS D or E depending on the road</p> <p>In downtown Tualatin (a Metro designated Town Center) – 2-hour peak hour standards:</p> <ul style="list-style-type: none"> • First peak hour the v/c is less than or equal to 1.1 • Second peak hour the v/c is less than or equal to 0.99 	Analysis shows two intersections not meeting standards (SW Teton Ave/SW Tualatin Road, and SW Martinazzi Ave/SW Sagert) which increased to 11 intersections in the future conditions analysis	<p>Roadway capacity and intersection optimization projects improve traffic flow and help maintain future congestion within the existing standards. Additionally, the TDM/TSM programs, increased transit, and more complete bicycle and pedestrian network will help reduce vehicle demand on roads within Tualatin.</p> <p>The preferred system of transportation improvements meets the relevant requirements for Town Centers</p>

Category	Metro's 2035 Performance Metrics	Tualatin TSP Performance Measure	Tualatin System Deficiencies	Tualatin TSP projects that address the deficiencies
Freight Reliability	By 2035, reduce vehicle hours of delay truck trip by 10 percent compared to 2005	<p>Reduce vehicle delay for truck trips on identified truck routes</p> <p>Improve reliability for truck trips on identified truck routes</p>	A number of freight routes within the City experience delay currently, including the roads around the downtown core (SW Tualatin-Sherwood Road, SW Boones Ferry Road, and SW Martinazzi Avenue). Travel times during the afternoon peak hour are not predictable, and delay can vary from day to day, increasing transportation costs for businesses that rely on shipping.	Optimizing signal timing on regional roadways, encouraging off-peak travel on both SW Herman Road, and SW Tualatin-Sherwood Road help reduce truck delay. Capacity projects on Tualatin-Sherwood Road, sections of Avery, Teton, Herman, Myslony, and others, as well as turn lane, intersection configurations, and coordinated signals at specific locations help reduce vehicle hours of delay.
Walking, Biking, Transit, and Non-SOV	<p>By 2035, triple walking, biking, and transit mode share compared to 2005.</p> <p>Town Center mode share is 45-55% non-drive alone modal target for Downtown Tualatin and 40-45 percent for other areas of the City.</p>	<p>Implement policies and projects to move towards the regional non-SOV mode share for the appropriate areas in the City</p> <p>Work toward achieving the Metro non-SOV mode share targets of 45 to 55 percent for Downtown Tualatin and 40 to 45 percent for other areas of the City.</p>	There are a number of gaps in the sidewalk, bike lane, and multi-use path network in Tualatin. There are also few wayfinding signs to direct pedestrians and bicyclists to the existing multi-use paths. Current mode share for those traveling to work who live in Tualatin is 77.6 percent drive to work alone, 7.4 percent carpool, 4.2 percent take transit, 2.9 percent walk, and 0.4 percent bicycle.	The TDM/TSM programs, increased transit, and more complete bicycle and pedestrian network will help increase the percentage of residents in Tualatin who walk, bicycle, take transit, and carpool in the downtown core and other areas of the City.

Category	Metro's 2035 Performance Metrics	Tualatin TSP Performance Measure	Tualatin System Deficiencies	Tualatin TSP projects that address the deficiencies
Climate Change	By 2035 reduce transportation related carbon dioxide emissions by 40 percent below 1990 levels	Strive to reduce VMT per capita by 10 percent compared to 2010	There are more jobs in Tualatin than there are workers to fill those jobs in the City, additionally, 75 percent of residents in Tualatin work outside of the City, which increases VMT per capita.	The TDM/TSM programs, increased transit, and more complete bicycle and pedestrian network will help decrease per capita VMT and the associated transportation-related emissions to meet this performance measure.

The projects and policies included in the Tualatin TSP meaningfully contribute towards Metro achieving its performance metrics by addressing safety concerns, reducing congestion, improving freight reliability, and providing non-driving options that help affect mode split and VMT per capita. Combined with other metropolitan area cities Tualatin's TSP will help Metro reach its 2035 Performance Targets.



Screening Results

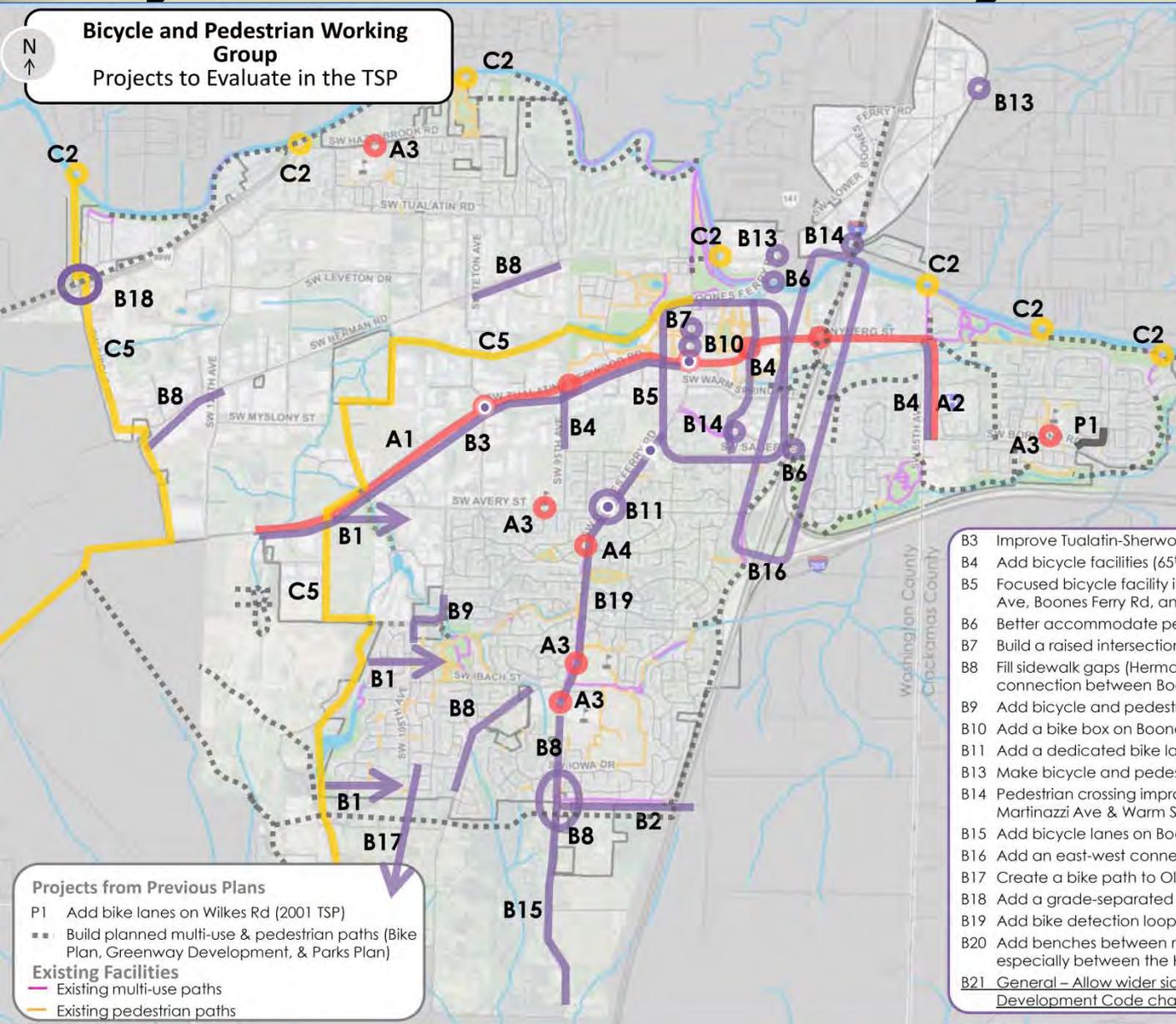
By Working Group
Topic Area



Bicycle/Pedestrian

Bicycle and Pedestrian - Projects to Evaluate

Bicycle and Pedestrian Working Group Projects to Evaluate in the TSP



Safety-Focused Ideas

- A1 Add pedestrian-focused crossing improvements at key crossings of Tualatin-Sherwood Rd & Nyberg St
- A2 Separate walking/bike area with plantings or barriers on 65th Ave between Borland Rd and Nyberg Ln including adding bicycle/pedestrian facilities on the bridge at 65th Ave
- A3 Improve visibility and safety near schools at crosswalks
- A4 Improve visibility at crosswalk at Siletz Dr & Boones Ferry Rd
- A6 General - Add wayfinding signs for Safe Routes to School

Trail-Focused Ideas

- C2 Build bridges for pedestrian and bicycle access over the Tualatin River
- C4 Create a system of bicycle boulevards (Bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)
- C5 Tonquin Trail

Facility-Focused Ideas

- B1 Connect Tonquin trail with neighborhoods
- B2 Add sidewalks & bicycle lanes on Norwood Rd
- B3 Improve Tualatin-Sherwood Rd to make it more bicycle and pedestrian friendly
- B4 Add bicycle facilities (65th Ave near the hospital, 95th Ave and Martinazzi Ave)
- B5 Focused bicycle facility improvements in heart of downtown, including Martinazzi Ave, Boones Ferry Rd, and Tualatin-Sherwood Rd
- B6 Better accommodate pedestrians on the bridges
- B7 Build a raised intersection at Seneca and Nyberg (crossing Boones Ferry Rd)
- B8 Fill sidewalk gaps (Herman Rd, Grahams Ferry Rd, Boones Ferry Rd, and the connection between Boones Ferry Rd and Norwood Rd)
- B9 Add bicycle and pedestrian facilities on 105th Ave, Blake St, 108th Ave
- B10 Add a bike box on Boones Ferry Rd near the Sweek House
- B11 Add a dedicated bike lane through intersection at Avera St & Boones Ferry Rd
- B13 Make bicycle and pedestrian facility improvements at railroad crossings
- B14 Pedestrian crossing improvements (Tualatin View Apartments, Boones Ferry Rd; Martinazzi Ave & Warm Springs St)
- B15 Add bicycle lanes on Boones Ferry Rd to Day Rd
- B16 Add an east-west connection across I-5
- B17 Create a bike path to Old Town Sherwood as this area develops
- B18 Add a grade-separated crossing over 99W
- B19 Add bike detection loops at major intersections (indicated by ●)
- B20 Add benches between residential and commercial areas throughout the city, especially between the Heritage Center and Haggens (not on map)
- B21 General - Allow wider sidewalks for strolling and outdoor cafes. (Potential Tualatin Development Code change)

Projects from Previous Plans

- P1 Add bike lanes on Wilkes Rd (2001 TSP)
- Build planned multi-use & pedestrian paths (Bike Plan, Greenway Development, & Parks Plan)

Existing Facilities

- Existing multi-use paths
- Existing pedestrian paths

Bicycle and Pedestrian - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A5	Improve lighting at Jurgens Rd and Hazelbrook Rd	1 (transportation related, addressing an identified need)	Forward to engineering
B1	Add a pedestrian overcrossing between the Community park and Tualatin Commons	1 (transportation related), 4 (cost)	Consider upon future development
C3	Add a pedestrian shortcut between Hazelbrook Rd and 99W	1 (addressing an identified need)	Consider if a future development occurs at this location



Bicycle/Pedestrian

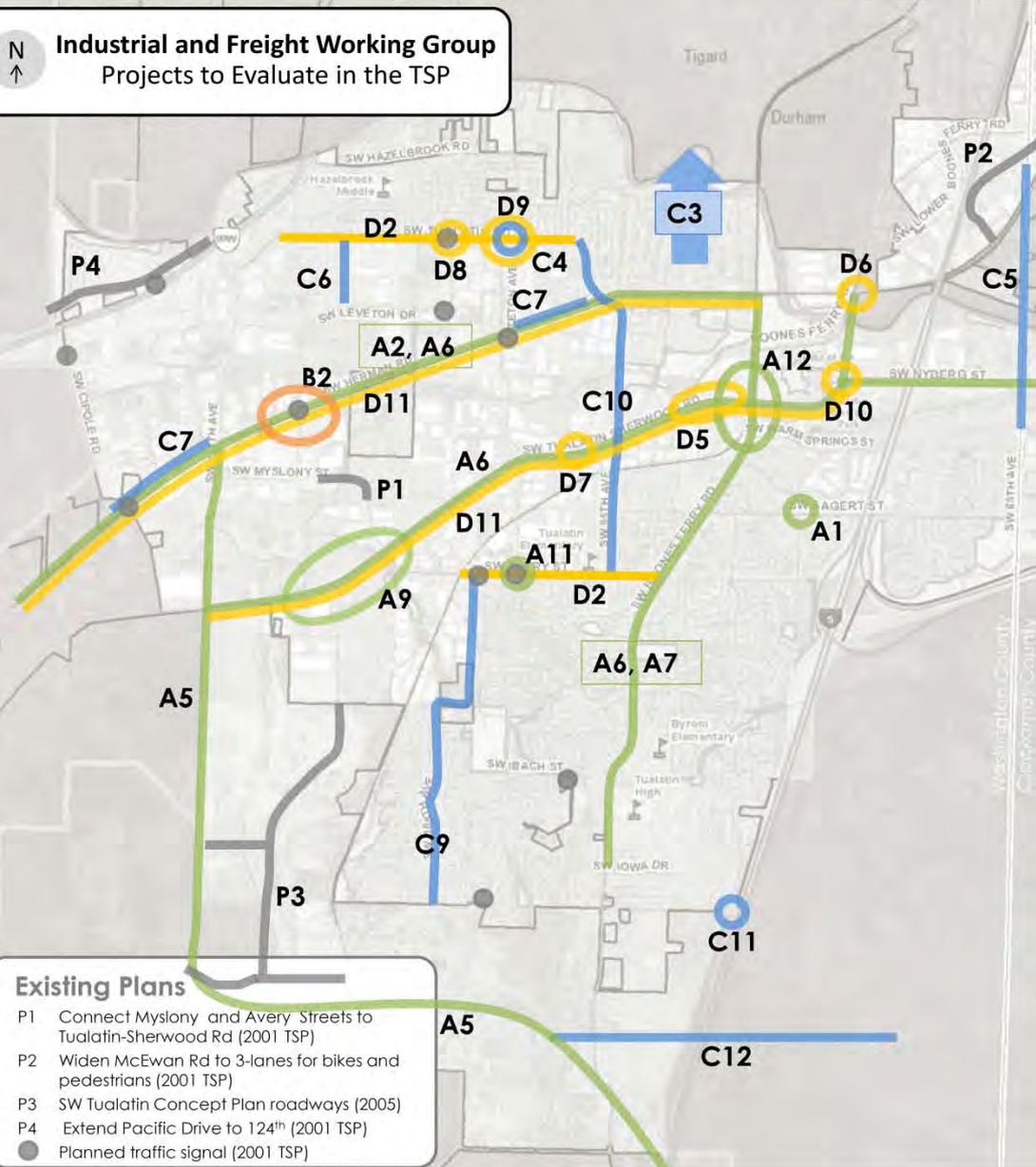
Discussion



Industrial and Freight

Industrial and Freight - Projects to Evaluate

Industrial and Freight Working Group Projects to Evaluate in the TSP



Congestion-Focused Ideas

- A1 Add a signal or roundabout at Sager St and Martinazzi Ave
- A2 Divert truck traffic from Tualatin Rd to Herman Rd
- A5 Extend 124th Ave and connect to I-5 south of Tualatin
- A6 Provide coordinated signal timing and access management along major arterials. Restrict trucks to right lane. Widen travel lanes.
- A7 Widen Boones Ferry Rd. Remove right turn light at Tualatin-Sherwood Rd. Remove right turn light in the northbound direction on Boones Ferry Rd.
- A9 Improvements to help mobility of through-traffic (Tualatin-Sherwood Rd)
- A11 Improve turn radius at Avery St and Teton Ave, look at congestion
- A12 Synchronize turn signals to/from Boones Ferry Rd to Tualatin-Sherwood Rd; coordinate with the train signal

Transit-Focused Ideas

- B1 General - Add Saturday, Sunday, late evening transit shuttle
- B2 Add rail station with easy offload and access for industry
- B3 General - Provide local loop bus

Connectivity-Focused Ideas

- C3 North-south connection to Hall Blvd. Look for ways to provide north-south connectivity over Tualatin River for vehicles
- C4 Add a left turn from Teton Ave to Tualatin Rd
- C5 Extend 65th Ave north
- C6 Improve 115th Ave
- C7 Improve cross-section on Herman Rd
- C9 Balance the needs of neighborhood with local truck movement along 108th/105th Aves. Consider removing trucks/adding truck info signs.
- C10 Extend 95th Ave north to Tualatin Rd
- C11 Add an interchange on I-5 at Norwood Rd
- C12 Create an east/west connection across I-5 (near Greenhill Rd)

Other Ideas

- D1 General - Coordinate freight receiving/shipping times
- D2 Add vision & sound walls; reduce cut-through traffic.
- D3 General - Improve safety and reduce congestion by education and incentivizing telecommuting
- D5 Add a lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Add traffic camera for red light violations.
- D6 Improve signs to direct traffic to correct street
- D7 Add traffic signal at 97th Ave and Tualatin-Sherwood Rd
- D8 Improve visibility, restrict left turns from 108th Ave onto Tualatin Rd
- D9 Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd
- D10 Improve Tualatin-Sherwood Rd/Martinazzi Ave signal timing/add a red light camera
- D11 Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd
- D12 General - Make "Truck Route" signs larger

Existing Plans

- P1 Connect Myslony and Avery Streets to Tualatin-Sherwood Rd (2001 TSP)
- P2 Widen McEwan Rd to 3-lanes for bikes and pedestrians (2001 TSP)
- P3 SW Tualatin Concept Plan roadways (2005)
- P4 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal (2001 TSP)

Industrial and Freight - Ideas Screened Out

ID	Project Idea	Based on what screening question?	Action to be taken
A3	Provide an undercrossing for Nyberg through traffic under I-5 to avoid signal/conflicts. Create an urban interchange	2 (ability to implement), 4 (cost)	None
A4	Reconsider the connection between 99W and Tualatin-Sherwood Rd (note: in Sherwood)	2 (ability to implement)	Forward to City of Sherwood
A8	Close 90th Ave to 18-wheel trucks	1 (addressing a transportation problem)	Reassess during review of functional classification plan
A10	Create a loop road around central downtown, with a turn radius that works for trucks	1 (addressing a transportation problem), 4 (cost)	None
B3	General – Provide bus from Clackamas MAX stop to WES for employees	1 (addressing a transportation problem)	Forward to TriMet

Industrial and Freight - Ideas Screened Out (cont'd)

ID	Project Idea	Based on what screening question?	Action to be taken
C1	Add connection and entry to I-205	3 (technical feasibility)	None
C2	Provide direct connection between Herman Rd & Boones Ferry Rd. Consider a tunnel	2 (ability to implement), 4 (cost)	None
C1	Add interchange at Norwood Road	3 (technical feasibility)	None
D4	Move industrial area to the SW area, change to multi-family residential, or buffer existing neighborhood better from industrial area	1 (transportation-related)	Forward to Planning



Industrial and Freight

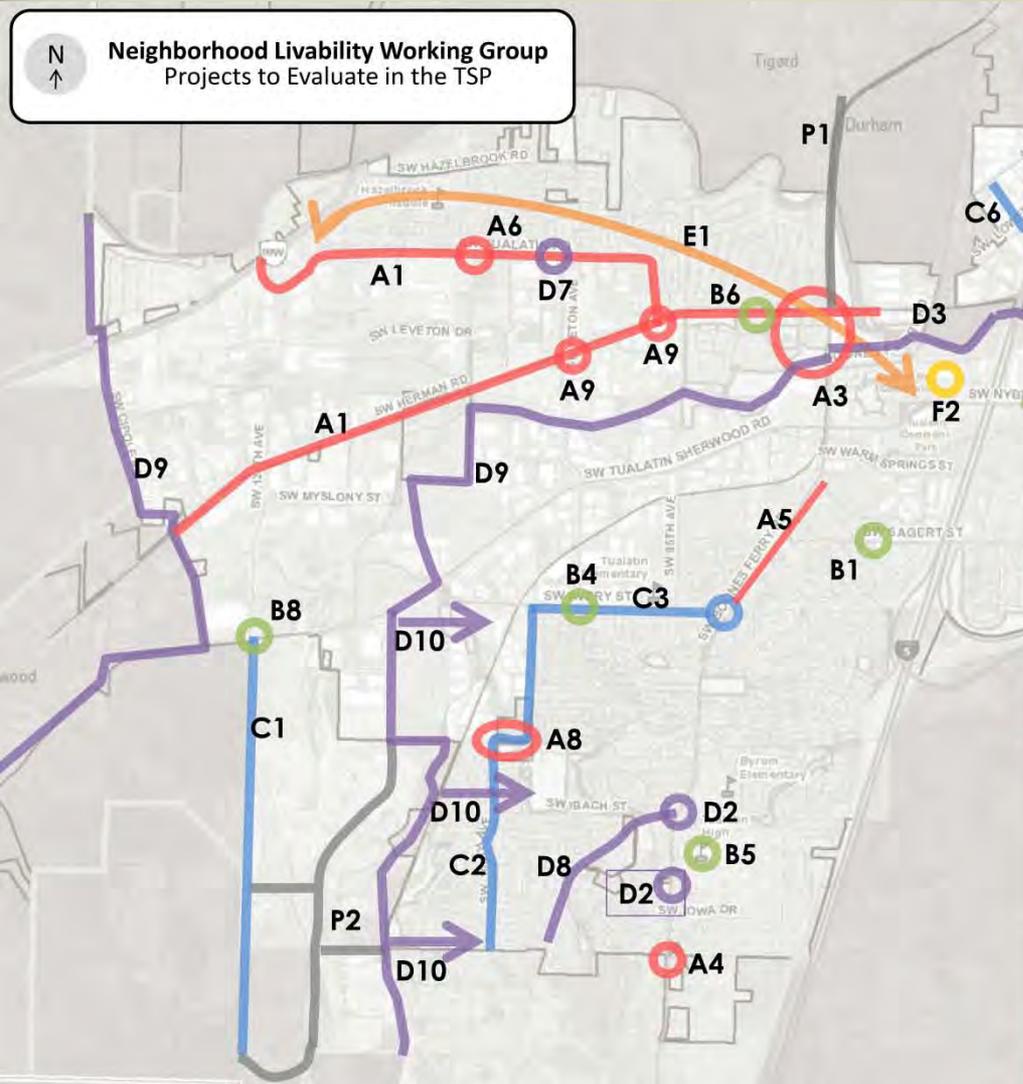
Discussion



Neighborhood Livability

Neighborhoods - Projects to Evaluate

N
↑
Neighborhood Livability Working Group
Projects to Evaluate in the TSP



Safety-Focused Ideas

- A1 Discourage/restrict through & truck traffic along Tualatin Rd while encouraging a shift to Herman Rd & Leveton Rd. Make residential access along Tualatin Rd easier.
- A3 Reroute school buses away from Tualatin Community Park and two railroad crossings
- A4 Add a roundabout at Boones Ferry Rd & Norwood Rd
- A5 Explore ways to make Boones Ferry Rd more pedestrian-friendly, including the creation of one consistent speed limit, without widening
- A6 Improve intersection at 108th Ave and Tualatin Rd
- A8 Reduce speed, add sidewalks and bike lanes on Blake St curves. Possibly add trail through wooded area.
- A9 Eliminate free right turns

Congestion-Focused Ideas

- B1 Add a signal or roundabout at Sagert St and Martinazzi Ave
- B2 Add a dedicated right turn lane into Nyberg Woods Apartments
- B3 Realign Sagert St and Borland Rd intersection (roundabout or signal)
- B4 Improve intersection at Avery St and Teton Ave
- B5 Address congestion caused by high school
- B6 Adjust signal timing to reflect traffic needs
- B8 Add right turn lane from Tualatin-Sherwood Rd to northbound 124th Ave

Connectivity-Focused Ideas

- C1 Connect 124th Ave to Tonquin Rd
- C2 Balance neighborhood needs with trucks along 108th/105th Aves. Consider disallowing trucks/truck info signs. Add traffic calming.
- C3 Balance the needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school
- C6 Create a street between Boones Ferry Rd and Bridgeport Rd

Bicycle/Pedestrian-Focused Ideas

- D2 Consider pedestrian islands on Boones Ferry Rd, near Byrom Elementary and Tualatin High schools
- D3 Provide a multi-use path along the river
- D4 Connect sidewalk on east side of 65th Ave
- D5 Repair gap in sidewalk on the south side of Borland Rd
- D6 Add multi-use path as part of Tualatin Trail
- D7 Provide focused pedestrian crossing improvements (may need signal)
- D8 Add bike facilities & continuous sidewalks; reduce speed limit
- D9 Build the Tonquin Trail
- D10 Provide neighborhood connections to Tonquin Trail
- D11 Connect to Tualatin Path
- D12 General - add benches around the city for pedestrians, especially between Heritage Center and Haggens
- D13 ~~General - Provide 3 loop walking paths that connect all Tualatin Neighborhoods. Create a system of bicycle boulevards (bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)~~

Existing Plans

- P1 Extend Boones Ferry Rd to Hall (from the 2001 TSP)
- P2 SW Tualatin Concept Plan roadways (2005)

Transit-Focused Ideas

- E1 Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

Other Ideas

- F2 Consider changing "no right on red" sign. Remove northbound right turn light in Boones Ferry Rd

Neighborhood Livability - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A2	Improve lighting on Hazelbrook Rd	1 (transportation-related)	Forward to Engineering
A7	Improve sight distance and reduce speeds at Boones Ferry Rd and Arapaho Rd	1 (does not address a transportation problem)	Forward to Engineering
A10	Require a stop before vehicles turn right onto Boones Ferry Rd between Mohawk St and Greenhill Lane	3 (technical feasibility)	None
B7	Add two right turns onto I-5 northbound from Nyberg St	2 (ability to implement)	Forward to ODOT
C4	Add I-5 Interchange with Norwood Rd	3 (technical feasibility)	None
C5	Limit Siletz to exit only at Boones Ferry Rd and 105 th Ave to minimize cut-through traffic.	1 (not included in TSP analysis)	Revisit upon completion of Boones Ferry Road analysis and recommendations
D1	Consider a pedestrian overcrossing on Boones Ferry Rd	4 (cost)	Assess more effective, lower cost solutions to pedestrian safety

Neighborhood Livability - Ideas Screened Out (Cont.)

ID	Project	Based on what screening question?	Action to be taken
F1	Consider ways to lessen noise from 99W and I-5 on nearby residences	1 (transportation related)	Forward to Engineering
F3	Intersection of Ibach/Grahams Ferry is confusing; rename road or better signs; need better lighting	1 (transportation related, addressing a transportation problem)	Forward to Engineering
F4	General – Add gateway signs to announce CIOs	1 (transportation related)	Forward to CIOs
F5	Move industrial area to the SW area (no direct truck route), change to multifamily residential, or buffer existing neighborhood better from industrial area	1 (transportation related)	Forward to Planning
F6	Create small, neighborhood commercial for residents to walk to	1 (transportation related)	Forward to Planning



Neighborhood Livability

Discussion

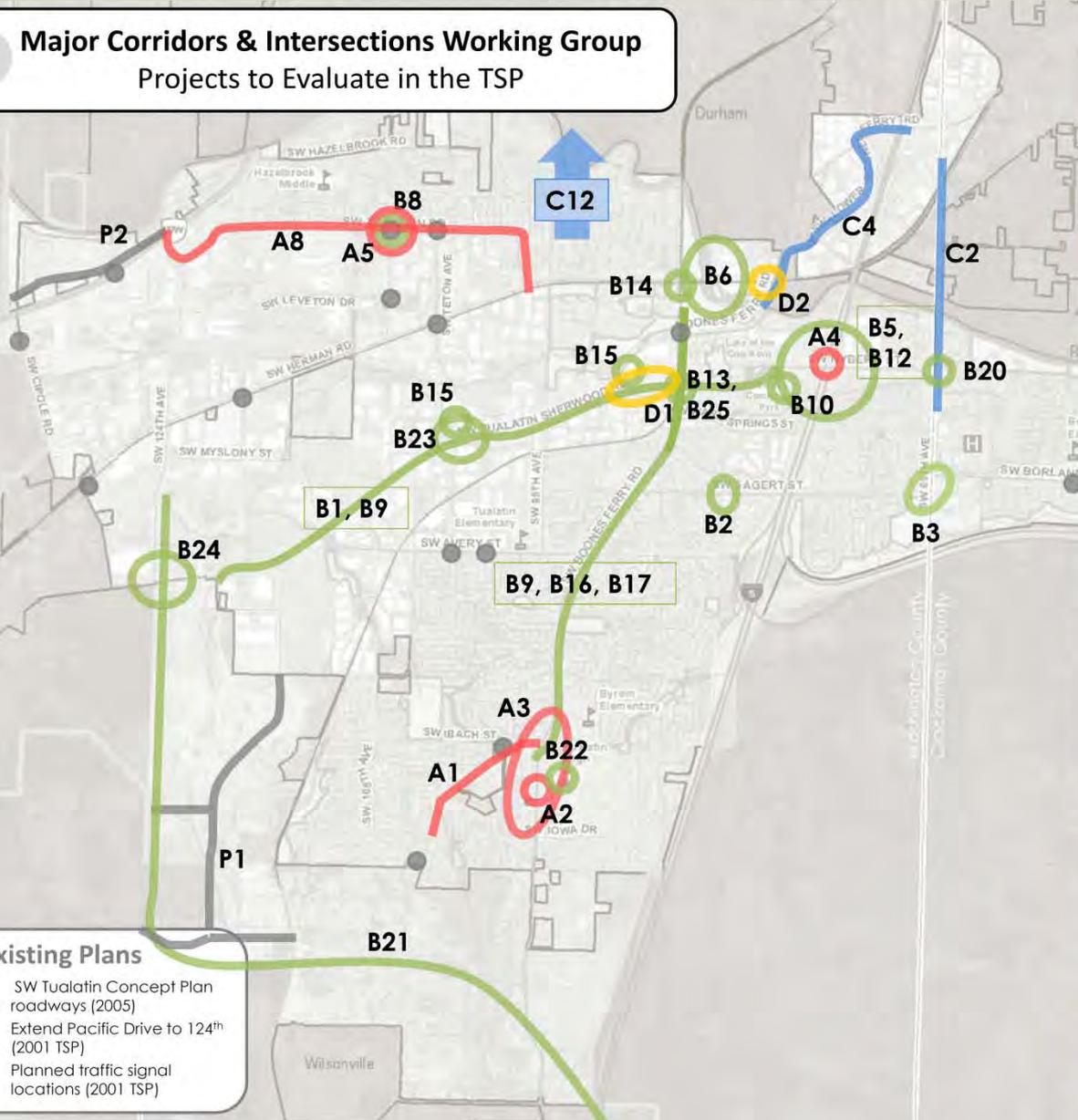


Major Corridors and Intersections

Major Corridors - Projects to Evaluate



Major Corridors & Intersections Working Group Projects to Evaluate in the TSP



Existing Plans

- P1 SW Tualatin Concept Plan roadways (2005)
- P2 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal locations (2001 TSP)

Safety-Focused Ideas

- A1 Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd
- A2 Add traffic signal at Tualatin High School
- A3 Consistent speed zones for both Tualatin High School & Byrom Elementary School
- A4 Raise the southbound off ramp to allow a better view of traffic on
Improve the sight distance at the I-5-Nyberg Rd interchange
- A5 Add traffic signal on Tualatin Rd at 108th Ave or on Teton Ave
- A6 General - consistent use of yellow turn signals on all traffic signals
- A8 Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd. Make residential access easier.

Congestion-Focused Ideas

- B1 Widen Tualatin-Sherwood Rd
- B2 Signal or roundabout at Sagert St and Martinazzi Ave
- B3 Realign Sagert St/Borland Rd intersection
- B5 Restrict right turn on red at Nyberg Interchange
- B6 Rethink access in vicinity of Tualatin Community Park
- B8 Prohibit left turns out of 108th Ave or remove trees in the southwest corner
- B9 Coordinate signal timing on Boones Ferry Rd and Tualatin-Sherwood Rd; widen Boones Ferry Rd
- B10 Redesign the intersection at the Fred Meyer (from Nyberg Rd)
- B12 Make two right turn lanes from I-5 north onto Nyberg Rd
- B13 Extend the northbound left turn lane and create a southbound right turn lane on Boones Ferry Rd at Tualatin-Sherwood Rd to reduce backup from WES train; add red light cameras
- B14 Reconfigure Boones Ferry Rd at Tualatin Rd
- B15 Add a 4-way stop by 90th Ave at Kaiser
- B16 Add bus pullouts on Boones Ferry Rd
- B17 Widen Boones Ferry Rd
- B20 Roundabout at Nyberg Rd/65th Ave; keep Nyberg Rd 2 lanes
- B21 Extend 124th Ave and connect to I-5 and Tonguin Rd
- B22 Address congestion caused by high school
- B23 Add a dedicated right turn lane on Teton Ave at Tualatin-Sherwood Rd
- B24 Add right turn lane on Tualatin-Sherwood Rd at 124th Ave

Connectivity-Focused Ideas

- C2 Extend 65th Ave north
- C4 Improve traffic flow on Lower Boones Ferry Rd near Bridgeport Village into downtown Tualatin
- C12 Extend Boones Ferry Rd to Hall Blvd. Look for ways to provide north-south connectivity over Tualatin River for vehicles

Other Ideas

- D1 Add lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Install traffic camera for signal violations.
- D2 Better signs needed to direct traffic to correct street

Major Corridors - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A7	Improve sight distance and reduce speeds at Boones Ferry Rd and Arapaho Rd	1 (does not address a transportation problem)	Forward to Engineering
B4	Consider a traffic loop in downtown (one way, right turn only)	1 (addressing a transportation problem), 4 (cost)	Look at other options to address downtown circulation
B7	Consider removing ramp signals at Nyberg interchange	1 (does not address a transportation problem), 2 (Ability to Implement)	Look at other options to address congestion at Nyberg interchange
B1	Consider redesigning the Nyberg interchange into a full cloverleaf	2 (ability to implement), 4 (cost)	Look at other options to address congestion at Nyberg interchange
B1	Add a southbound left turn and right turn lane to Nyberg interchange	1 (does not address a transportation problem), 4 (cost)	Look at other options to address congestion at Nyberg interchange
B1	Restrict trucks to right lane, widen travel lanes	2 (ability to implement)	None

Major Corridors - Ideas Screened Out (cont'd)

ID	Project	Based on what screening question?	Action to be taken
B25	Limit access and grade separate the intersection of Tualatin-Sherwood Rd and Boones Ferry Rd	1 (addressing a transportation problem), 4 (cost)	None
C3	Construct a new road between Tualatin High School and Byrom Elementary School	1 (does not address a transportation problem)	Look at other options to address school congestion
C5	Improve intersection at 99W and Tualatin Rd	1 (does not address a transportation problem)	None
C6	Extend Tualatin Rd to Lower Boones Ferry Rd	3 (technical feasibility)	None
C8	Add on/off ramps from I-5 to Norwood Rd	3 (technical feasibility)	None
C9	Widen Sagert St to 2 lanes each way with pedestrian median	1 (does not address a transportation problem)	None

Major Corridors - Ideas Screened Out (cont'd)

ID	Project	Based on what screening question?	Action to be taken
C10	Extend Helenius Road (Grahams Ferry Rd to Norwood Rd)	3 (technical feasibility)	None
C11	Create street grid in Bridgeport	1 (does not address a transportation problem), 2 (ability to implement)	None
D3	Tualatin-Sherwood Rd/Martinazzi Ave – Adjust signal timing, add a red light camera	2 (ability to implement)	Forward to Washington County – potential project already underway
D4	Adjust signal Timing	2 (ability to implement)	Forward to Washington County – potential project already underway



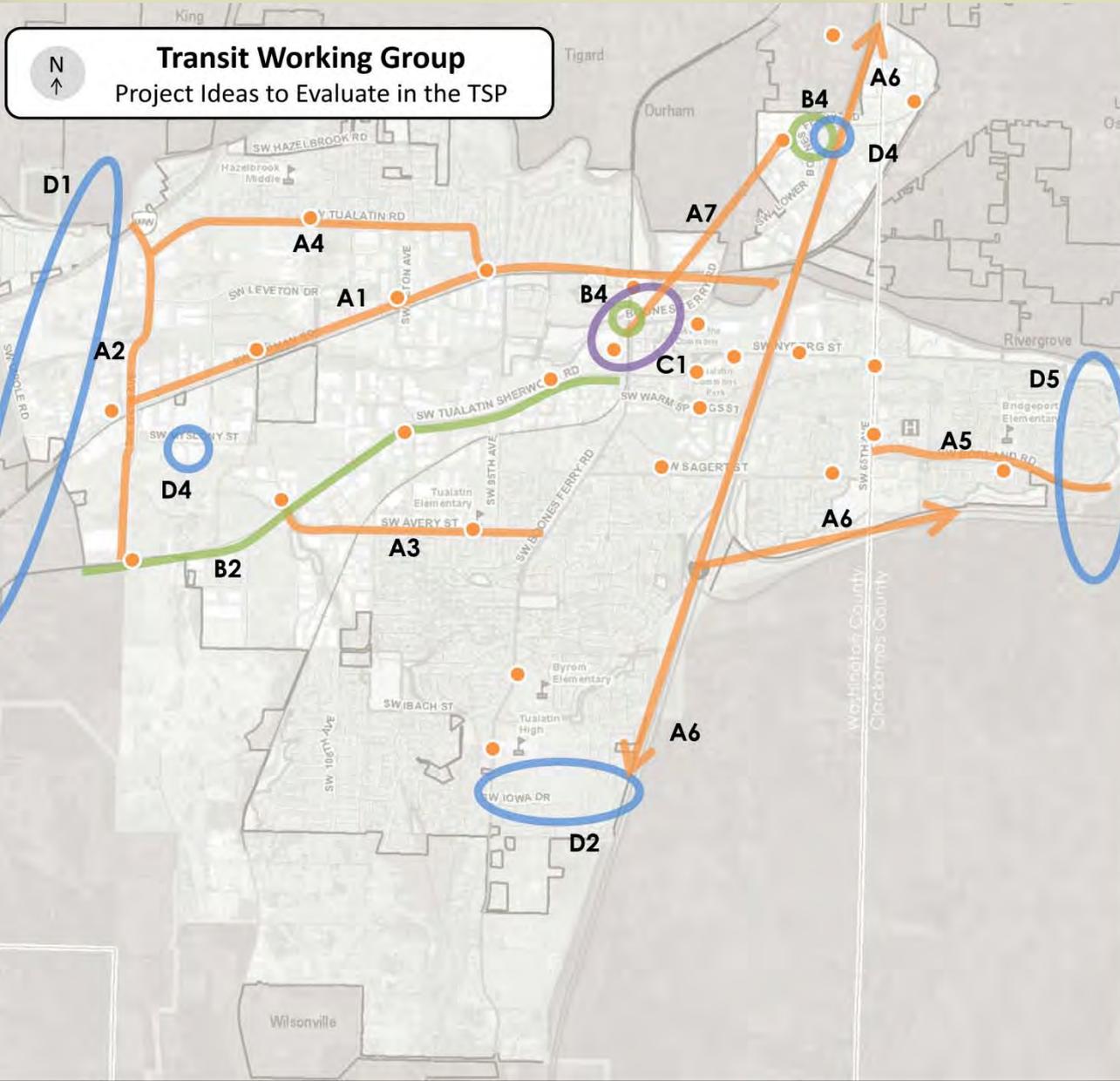
Major Corridors and Intersections

Discussion



Transit

Transit - Projects to Evaluate



Bus Service-Focused Ideas

- A1 Provide bus transit service on Herman Road
 - A2 Provide bus transit service on 124th Street
 - A3 Provide bus transit service on Avery Street
 - A4 Provide bus transit service on Tualatin Road between downtown and 99W
 - A5 Extend bus service to east Tualatin
 - A6 Improve bus service between Tualatin and Salem
 - A7 Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
 - A8 Provide a loop bus route around the city*
 - A10 Expand existing on-call shuttle and charge fares*
 - A12 General – need extended service hours for all transit*
 - A13 General – use more energy efficient buses*
 - A14 Coordinate bus schedules with WES schedule*
 - A16 Add stops on higher-volume routes*
- Potential bus stop locations connecting major employers and activity centers

*not shown on map

Rail Service-Focused Ideas

- B2 Provide rail or high capacity bus transit service on Tualatin-Sherwood Road (towards Sherwood)
- B4 Build elevated pedestrian bridge to connect park-and-ride with shopping at Bridgeport Village
- B10 General – Add more spaces for bicycles on WES trains*

Land Use-Focused Ideas

- C1 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Park-and-Ride-Focused Ideas

- D1 Look for potential park-and-ride locations in west Tualatin
- D2 Look for potential park-and-ride locations in south Tualatin
- D3 Add parking capacity at Tualatin Park-and-Ride (near Bridgeport Village)
- D4 Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots
- D5 Add a park-and-ride location in east Tualatin

Transit - Ideas Screened Out

ID	Project	Screening Question	Moving forward into evaluation?
A9	Add bus line from Yamhill Transit District to WES	2 (Ability to Implement)	Forward to Yamhill Transit District and TriMet
A11	General –leave TriMet service area	3 (Technical Feasibility)	Assess ability to improve transit service in Tualatin first, and then reconsider the need for this idea
A15	Provide transit service to Lake Oswego	1 (Addressing a need)	None
B1	Eliminate freight rail trips during rush hours, to avoid interrupting bus and WES service	2 (Ability to implement)	Participate in future regional discussions around increasing WES frequency (B3)
B3	Increase WES frequency	2 (Ability to implement)	Participate in future regional discussions around increasing WES frequency
B5	Extend WES to Salem	2 (Ability to implement)	Participate in future regional discussions on this topic

Transit - Ideas Screened Out (Cont.)

ID	Project	Screening Question	Moving forward into evaluation?
B6	Oregon Passenger Rail between Portland and Eugene	2 (Ability to implement)	Participate in future regional discussions on this topic
B7	SW corridor High Capacity Transit	2 (Ability to implement)	Participate in ongoing regional discussions on this topic
B8	Add a WES Station in south Tualatin	1 (Addressing a need)	Reconsider upon future buildout of Basalt Creek area
B9	General – Add more spaces for bicycles on WES trains	2 (Ability to implement)	Forward to TriMet
B11	Follow the existing rail line with High Capacity Transit	2 (Ability to implement)	Forward to Metro for ongoing SW Corridor and other regional transit discussions



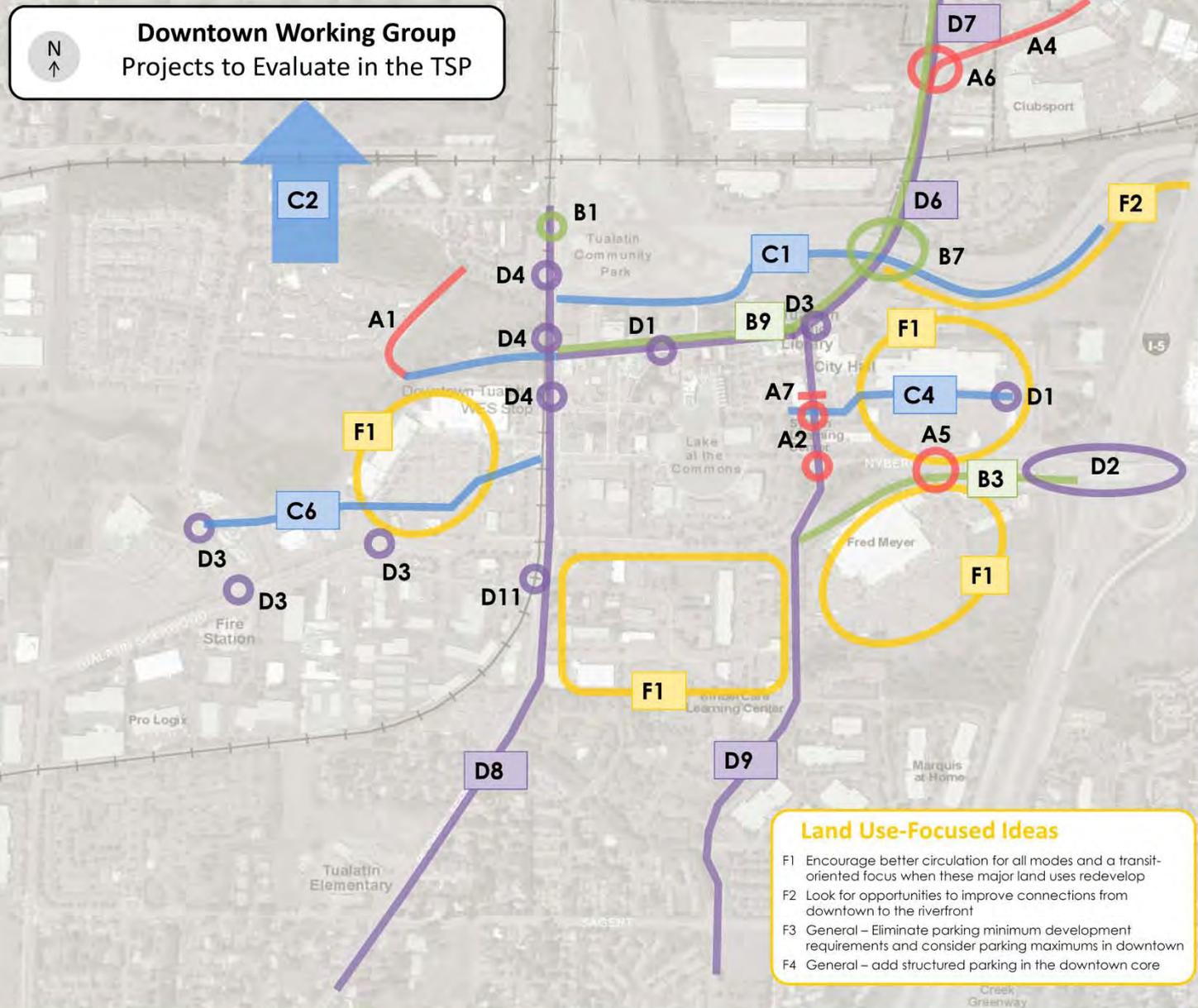
Transit

Discussion



Downtown

Downtown - Projects to Evaluate



Downtown Working Group
Projects to Evaluate in the TSP

- Safety-Focused Ideas**
- A1 Upgrade bridge surface and improve illumination along path near Hedges Creek
 - A2 Consider raised intersections for pedestrians at Seneca St and Nyberg St
 - A4 Reduce speeds near Bridgeport Village
 - A5 Redesign Fred Meyer & Kmart intersection – upgrade the pedestrian connection
 - A6 Add a roundabout at Lower Boones Ferry Rd and Boones Ferry Rd
 - A7 Add a pedestrian island on Martinazzi Ave north of Seneca St

- Congestion-Focused Ideas**
- B1 Improve circulation into and out of the park
 - B3 Add an eastbound lane on Tualatin-Sherwood Rd from Martinazzi Ave to I-5
 - B7 Replace/widen bridge on Boones Ferry Rd
 - B9 Widen Boones Ferry Rd to 5 lanes

- Connectivity-Focused Ideas**
- C1 Build a trail from Boones Ferry Rd to the downtown core along the river to the Tualatin River Greenway
 - C2 Look for ways to provide north-south connectivity over Tualatin River for vehicles
 - C4 Create a grid system near the Kmart, connect to Seneca St
 - C5 General-improve street connectivity in downtown
 - C6 Create a public road between Boones Ferry Rd and SW 90th Ave

- Bicycle/Pedestrian-Focused Ideas**
- D1 Redesign pedestrian crossing, consider flashing lights
 - D2 Upgrade Nyberg interchange to improve the crossing experience for bicyclists
 - D3 Optimize intersections to reduce conflicts between cars and pedestrians (Tualatin-Sherwood Rd & Martinazzi Ave and Boones Ferry Rd)
 - D4 Add pedestrian crossings along Boones Ferry Rd
 - D6 Improve sidewalks and bicycle lanes Boones Ferry Rd
 - D7 Improve bicycle and pedestrian facilities near Bridgeport Village
 - D8 Provide "Share the Road" signage and/or other visual cues to motorists to accommodate bicycles on Boones Ferry Rd
 - D9 Add bicycle lane or "Share the Road" signs on Martinazzi Ave
 - D10 General – coordinate traffic signal timing to accommodate pedestrians in downtown
 - D11 Focused pedestrian crossings

- Land Use-Focused Ideas**
- F1 Encourage better circulation for all modes and a transit-oriented focus when these major land uses redevelop
 - F2 Look for opportunities to improve connections from downtown to the riverfront
 - F3 General – Eliminate parking minimum development requirements and consider parking maximums in downtown
 - F4 General – add structured parking in the downtown core

Downtown - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A3	Add a grade separated railroad crossing on Tualatin-Sherwood Rd	1 (addressing a transportation problem), 4 (cost)	None
B2	Provide secondary exit from park, and provide additional parking	3 (technical feasibility)	Look at other options to improve circulation at park
B4	Add a travel lane on I-5 northbound (between Tualatin and OR 217)	2 (ability to implement)	Forward to ODOT
B5	Create a one-way circulator loop roadway around downtown	1 (addressing a transportation problem), 4 (cost)	Look at other options to address downtown circulation
B6	Reduce ambient noise along Boones Ferry Rd in downtown	1 (transportation-related)	None

Downtown - Projects to Screen (Cont.)

ID	Project	Based on what screening question?	Action to be taken
B8	Add HOV lanes on Tualatin-Sherwood Rd	2 (ability to implement), 3 (technical feasibility)	None
C3	Connect Nyberg Rd through the Commons	1 (addressing a transportation need)	Look at other options to address downtown circulation
C7	Extend Lower Boones Ferry Rd across Tualatin River	3 (technical feasibility)	None
D5	Create a pedestrian skybridge that connects downtown retail businesses and the park	1 (transportation-related), 4 (cost)	Consider upon future development



Downtown

Discussion



Refinement Area #1: Nyberg Interchange



Goal Statement (#1 of 2)

Address safety at the Nyberg Interchange for all modes

Possible Solution



- A. Paint bike lanes
- B. Redesign bike lane at east end of interchange
- C. Skip striping on bike lane at west end of interchange
- D. Improve lane signage west of interchange
- E. Move guardrail on SB off ramp
- ~~F. Disallow right turns on red from SB off ramp~~
- G. Redesign WB-NB movement to enhance safety
- H. Redesign NB off ramp to discourage traffic getting off and then right back onto I-5

Nyberg Interchange - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none"> • Minor effects on motor vehicle traffic • Moderate safety benefits 	●
City-wide traffic	<ul style="list-style-type: none"> • Minimal effect on city-wide traffic 	◐
Design Constraints / Considerations	<ul style="list-style-type: none"> • Revisions can be incorporated with minor impacts • Provides better delineation for traffic and bicyclists • Redesigns the NB on ramp to allow double rights • Discourages the NB through traffic with minor impacts 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Painted pavement would require ODOT review/approval • Recent precedent for painted bike lanes on ODOT facility • Minor changes to the interchange configuration will not impact the wetlands preservation district 	◐



Discussion

TTF recommendation:
Yes, move this option forward
to the Summit (without F)

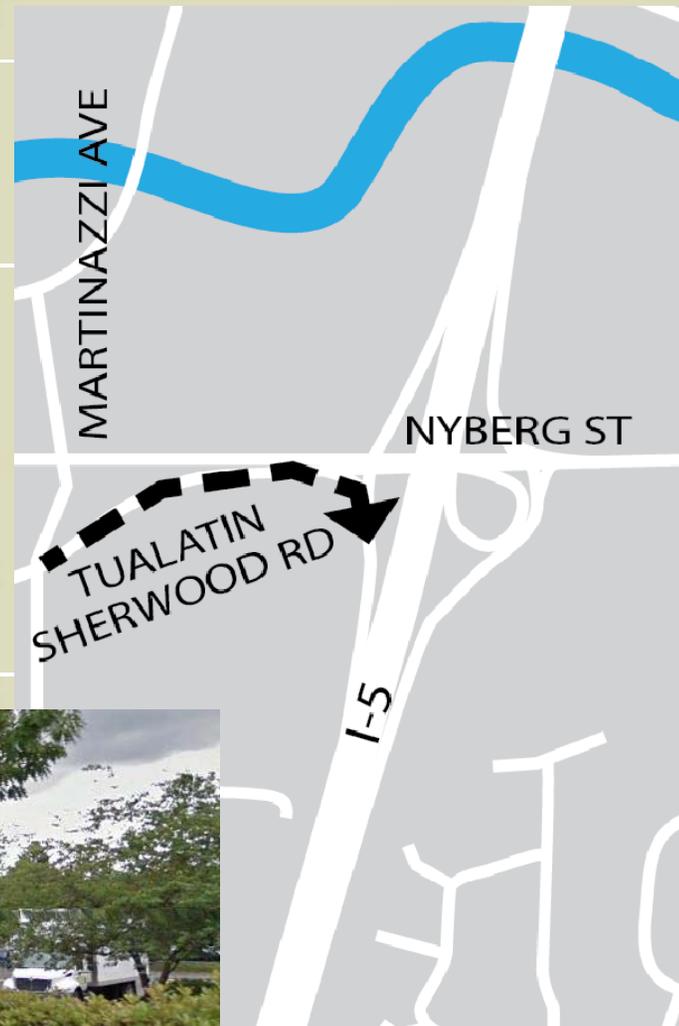


Goal Statement (#2 of 2)

Reduce congestion on Tualatin-Sherwood Road for eastbound drivers

Possible Solution

- Add a new lane on Tualatin-Sherwood Road in the eastbound direction from Martinazzi to I-5



Nyberg Interchange - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none"> • Minor increase in EB traffic accessing freeway • Operations stay relatively consistent • Could detract from bicycle and pedestrian safety 	
City-wide traffic	<ul style="list-style-type: none"> • This potential solution has minimal effect on city-wide traffic 	
Design Constraints / Considerations	<ul style="list-style-type: none"> • Width of Tualatin-Sherwood Road/Nyberg Street from Martinazzi to the east is tight • No impacts forecasted to the Fred Meyer truck access road • Requires removal of mature street trees • Possible solution would be to shift lanes and widen to median • Past Fred Meyer intersection, widening would likely require walls, structure widening and impacts to sensitive areas 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • The area is already built • Only impacts are to the landscaping strip between the roadway and Fred Meyer 	



Discussion

TTF recommendation:
No, do not forward on to summit
as a long-term solution. Revisit
upon next TSP update.



Refinement Area #2: 65th Avenue

Goal Statements

1. Provide north-south connectivity east of I-5

2. Address forecasted future congestion along 65th Avenue

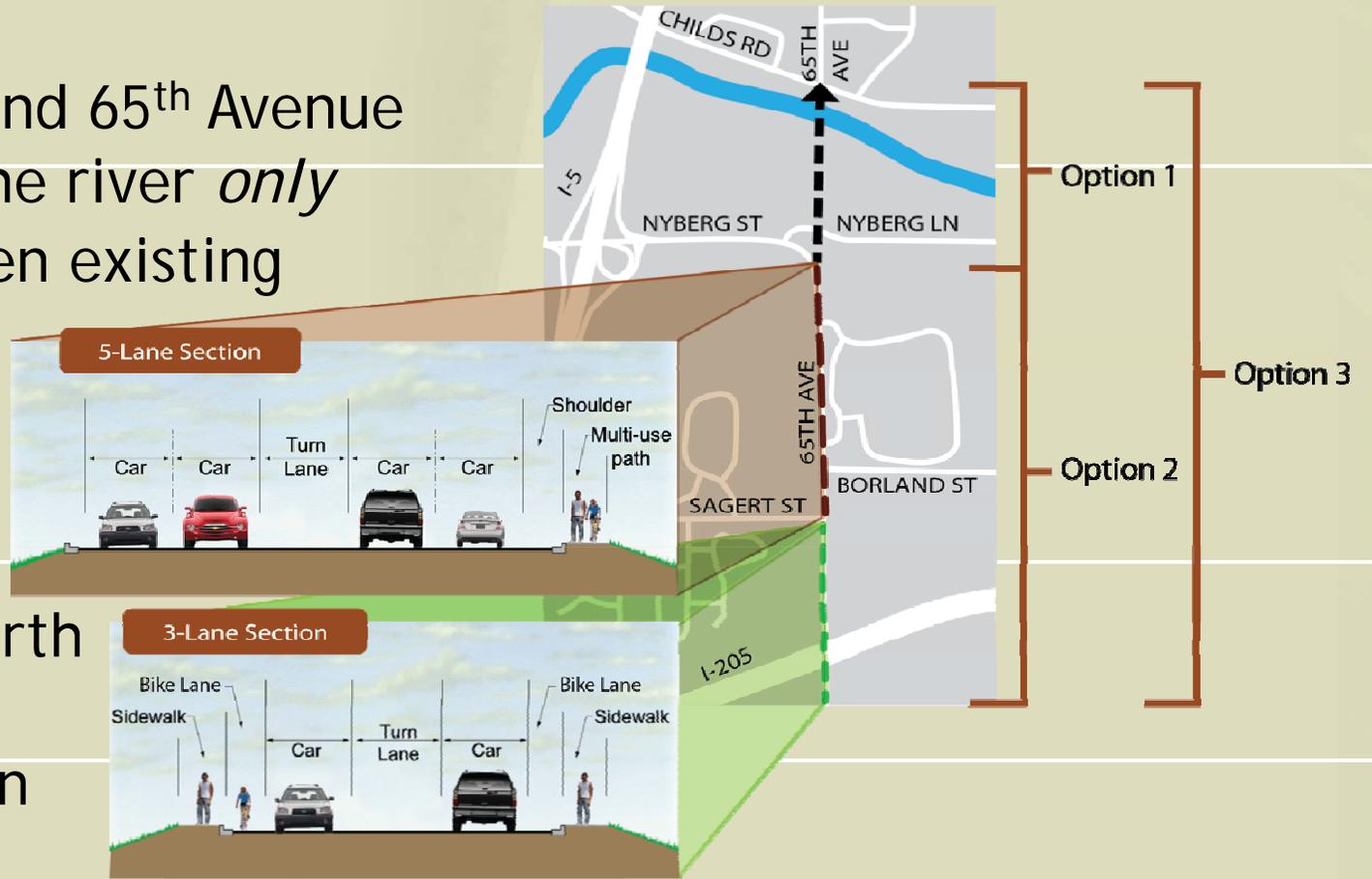


Possible Solution

Option 1: Extend 65th Avenue north across the river *only*

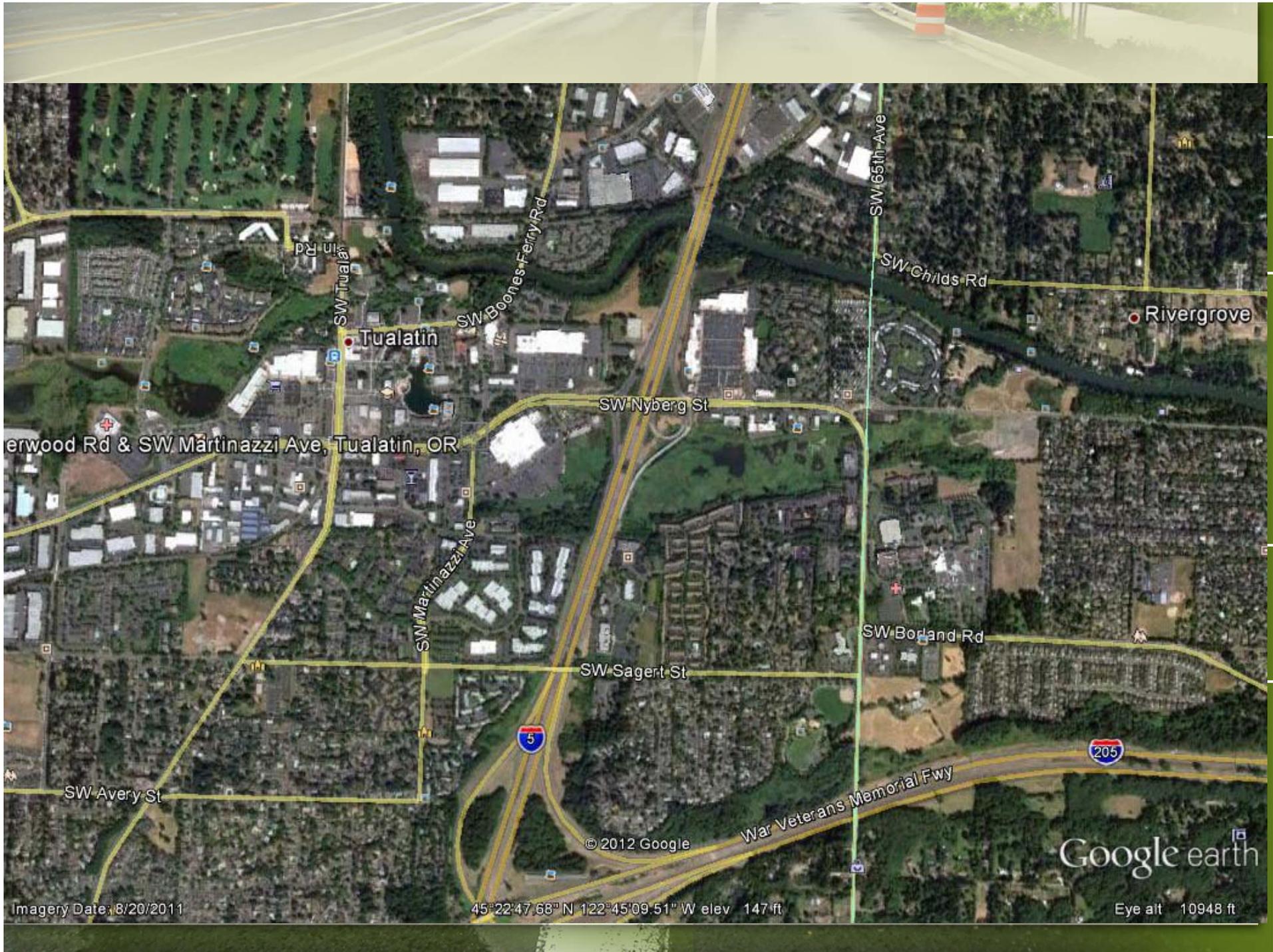
Option 2: Widen existing section of 65th Avenue *only*

Option 3: Extend 65th Avenue north and widen existing section



65th Avenue - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none">• A Four-Lane Extension allows for<ul style="list-style-type: none">➤ Connectivity to north➤ Potential for 1,000-1,200 vehicles during PM peak hour• Widening allows<ul style="list-style-type: none">➤ Capacity to service the future demand on the roadway and at intersections	◐
City-wide traffic	<ul style="list-style-type: none">• Extension would<ul style="list-style-type: none">➤ Reduce traffic on I-5 and Boones Ferry Road➤ Create slight increase in traffic on Tualatin Sherwood Road eastbound over the Nyberg interchange	◐



erwood Rd & SW Martinazzi Ave, Tualatin, OR

Imagery Date: 8/20/2011

45°22'47.68" N 122°45'09.51" W elev 147 ft

© 2012 Google

Google earth

Eye alt 10948 ft

65th Avenue - Findings

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • <u>Extension</u> considerations: <ul style="list-style-type: none"> ➤ 40' ± right of way available from river to Childs ➤ Alignment could be designed to avoid lift station east/south of Nyberg Lane • <u>Widening</u> considerations: <ul style="list-style-type: none"> ➤ Widening Borland to Nyberg possible for bikes and peds with minor impacts until structure crossing Nyberg Creek and wetlands area ➤ Widening for lane/capacity involves more significant right of way and utility impacts ➤ Signal at Sagert less impactful than combining Sagert and Borland into one intersection 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Multi-jurisdictional coordination needed • Impacts to Metro riparian class I-III habitat • Easements or right of way required to extend and/or widen 65th Avenue 	



Discussion

TTF recommendation: **Forward two options** (Variation of Option 1 with multi-use path along 65th Avenue, Option 3) on to summit



Refinement Area #3: North to South Connectivity



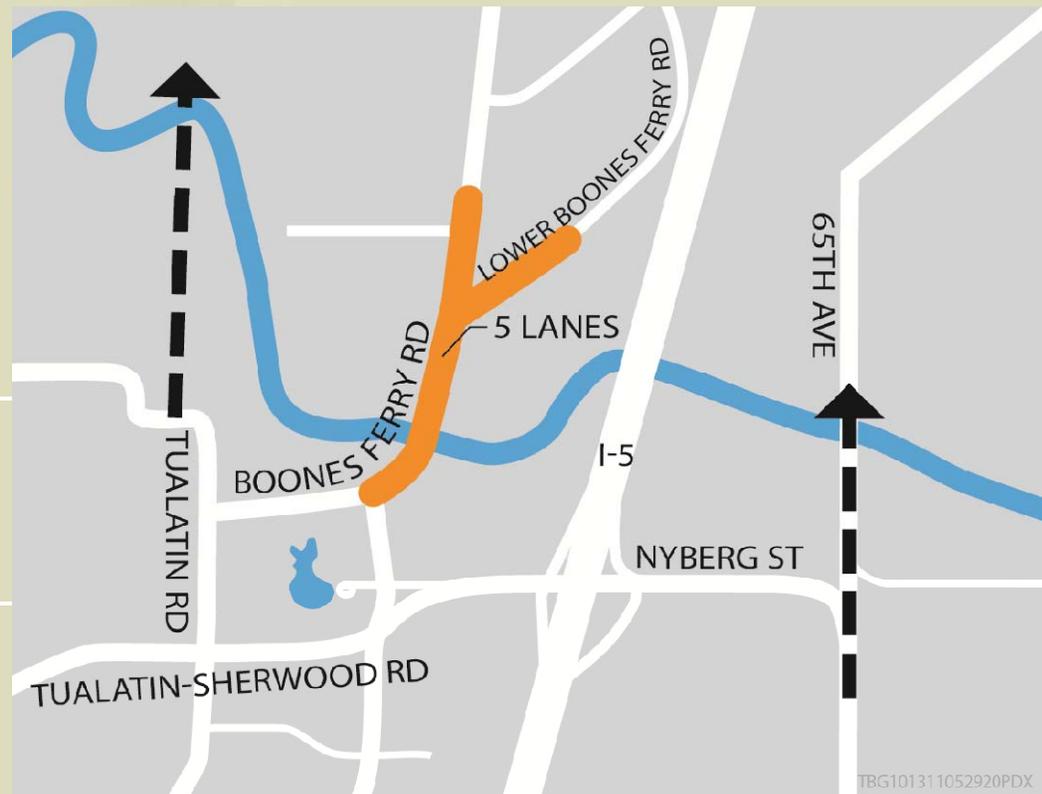
Goal Statement

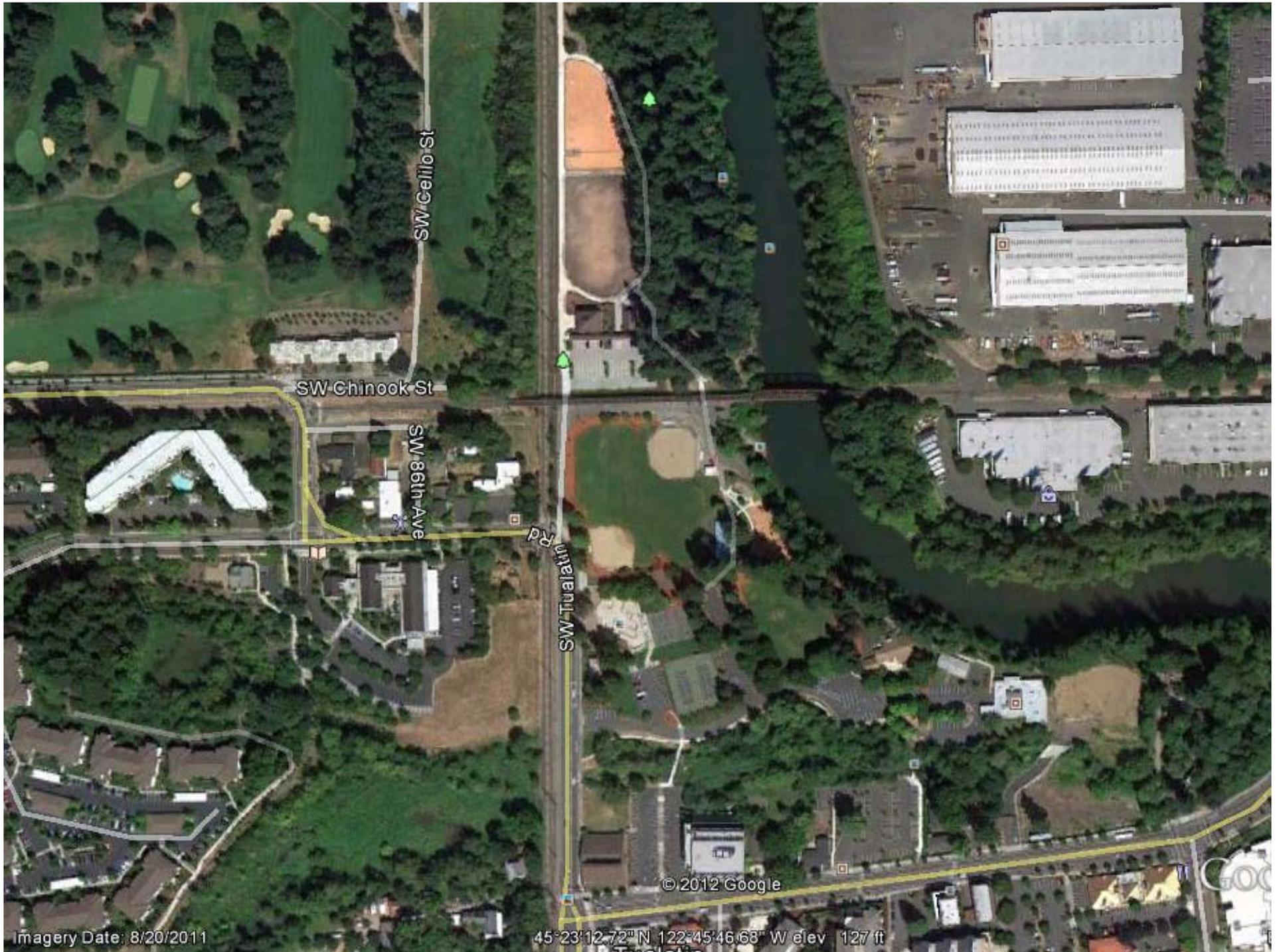
Improve north-south
connectivity west of I-5

From our July Meeting...

Look at a hybrid option that:

- Constructs a two-lane road connecting from Tualatin Road to Hall Boulevard north of the river
- Widens Boones Ferry Road to five lanes between Martinazzi and Lower Boones Ferry
- Assumes extension of 65th Avenue





SW Cello St

SW Chinook St

SW 86th Ave

SW Tualatin Rd

© 2012 Google

45°23'12.72" N 122°45'46.68" W elev 127 ft

Imagery Date: 8/20/2011





What Does This Do For Tualatin?

Area	Benefits	Impacts
Traffic	<ul style="list-style-type: none">• Decreases traffic on 99W, Boones Ferry Road (east of Tualatin Road), I-5• Decreases traffic on Herman and Tualatin Roads	<ul style="list-style-type: none">• Increases traffic into downtown and onto Tualatin-Sherwood Road
Design	<ul style="list-style-type: none">• Removes one 90 degree turn on Tualatin Road	<ul style="list-style-type: none">• Requires significant right of way• Additional at-grade crossing of RR tracks might be difficult
Environmental / Policy	<ul style="list-style-type: none">• Extension included in Tigard and Washington County TSPs• Does NOT impact Sweek House• If local connection is made at Tualatin Community Park, helps circulation into park	<ul style="list-style-type: none">• Additional environmental analysis would be needed related to river crossing, crossing of trail(s), and noise and air quality assessments



Discussion

City Council discussed North-South connectivity and voted **No**, do not move north-south connectivity on to Summit



Revisiting Refinement Area #4: Herman Road and Tualatin Road



Goal Statement

Encourage through traffic to
move onto Herman Road and off
of Tualatin Road

Refined Solution

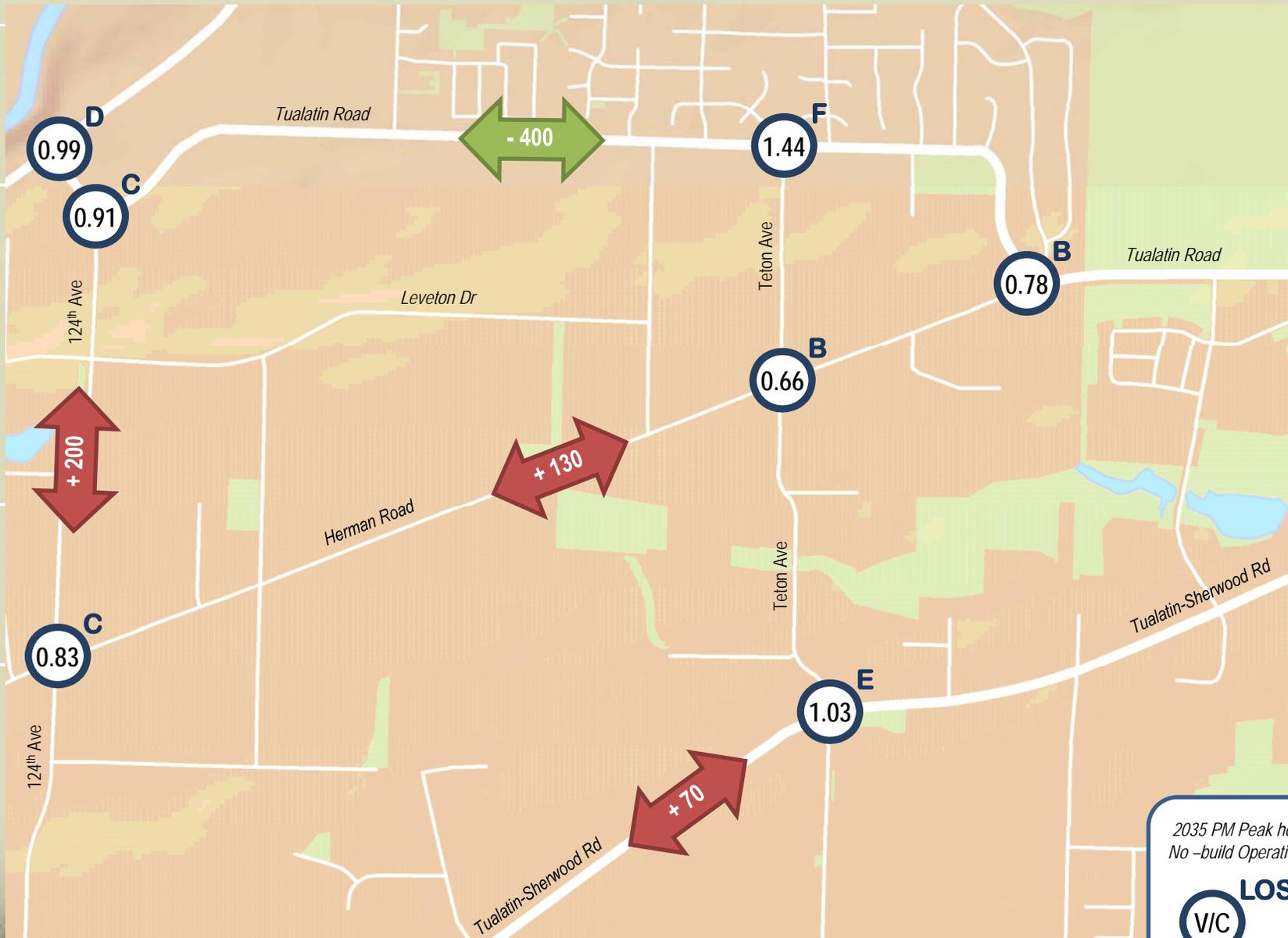


- A. Reclassify Herman to a minor arterial
- B. Upgrade section of Herman to 2 lanes
- C. Lower speeds on Tualatin
- D. Eliminate free right turn at Tualatin/Herman intersection, consider roundabout
- E. Add signals at the east and west ends of Tualatin
- F. Remove trees at Tualatin and 108th
- G. Modify channelization of 124th and Tualatin, consider roundabout
- H. Signage to indicate that Tualatin is for local traffic

Responses to Questions

No.	Question	Response
1.	Can you look at keeping Herman at 2-lanes between Teton and Tualatin?	Yes. There are limited driveways that would warrant a center-turn lane. Modified recommendation to upgrade Herman to 2-lanes with bicycle lanes and sidewalks
2.	Can you look at retaining current speeds on Tualatin?	Yes, but fewer cars move off of Tualatin as a result. Speeds would decrease as a result of signals
3.	What would the roundabout look like at the east end?	There appears to be sufficient room for a single-lane roundabout at this location, allowing Cheyenne to access it, would shift intersection slightly to north to avoid railroad tracks
4.	What happens to the signal on Tualatin and Teton?	This signal stays above the mobility threshold but we can look at minor modifications to the intersection and the timing to improve flow
5.	How many vehicles move from Tualatin to Herman?	See next slide – approx. 400 with suite of projects
6.	What about the 45-degree angles east of where you're looking?	See earlier discussion. There are modifications that could be done, or other ways to encourage traffic to turn on Teton or 124 th to move south

A Closer Look at Traffic...



2035 PM Peak hour
No -build Operations

LOS
VIC

Herman Road and Tualatin Road - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none"> Major effect is shifting of traffic from Tualatin Road to Herman Road 	
	<ul style="list-style-type: none"> On the west end traffic is diverted to 124th On the east end traffic is diverted to Herman Small amount of traffic shifted to Tualatin-Sherwood Road Some traffic diverted along Hwy 99W up to Durham Road 	
City-wide traffic	<ul style="list-style-type: none"> Minimal effects to city-wide traffic Majority of effects are local 	

Tualatin Road and Herman Road - Findings

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • Traffic calming can be installed with minor impacts • Projects could be chicane type improvements (lane weave) or speed tables 	
	<ul style="list-style-type: none"> • Coordination with Tualatin Valley Fire and Rescue and Tualatin Police likely needed • Improvements to Herman and the intersection of Tualatin/ Herman require right of way • New locations for signals recommended at Jurgens and 115th have not been analyzed for warrants • Removal of tree(s) at Teton, at the SW quadrant improve sight distance but have impacts to natural resources 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Some adjacent land would be required north of Herman to widen to three lanes • Potential impact some landscaping and parking • Planter circles and speed table design standards would need to be added to the City's code 	



Discussion

TTF recommendation: **Yes**, move this option forward to Summit



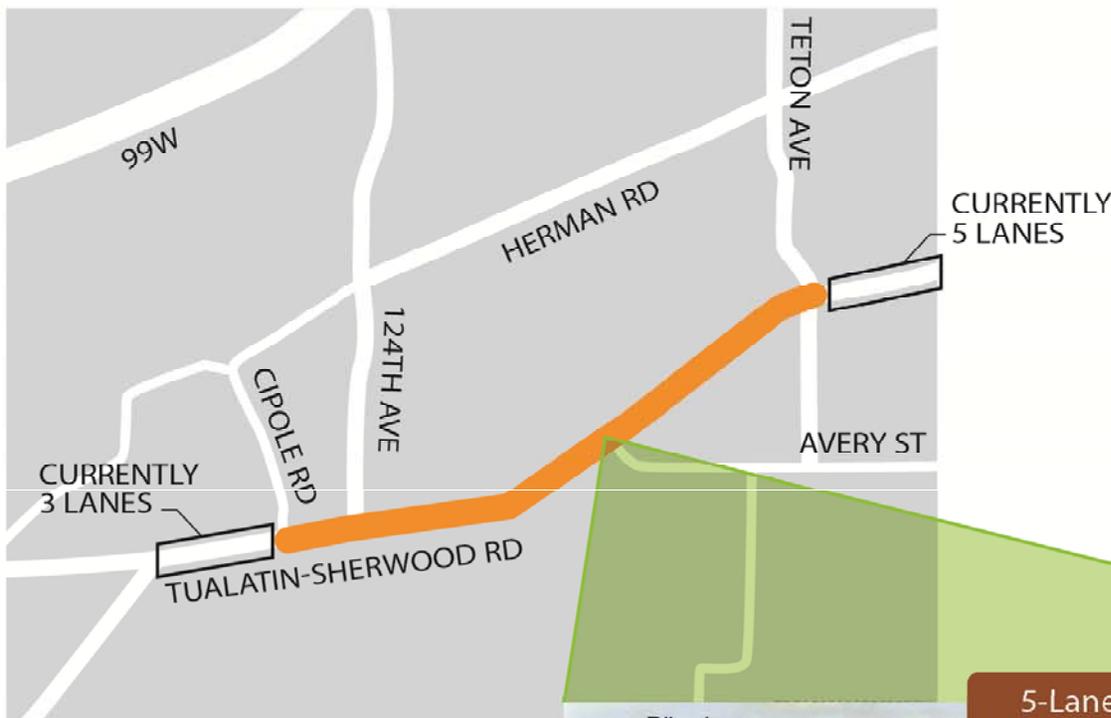
Refinement Area #5: Tualatin-Sherwood Road



Goal Statement

Relieve congestion and improve safety for all modes

Option #1: Complete Five Lane Section



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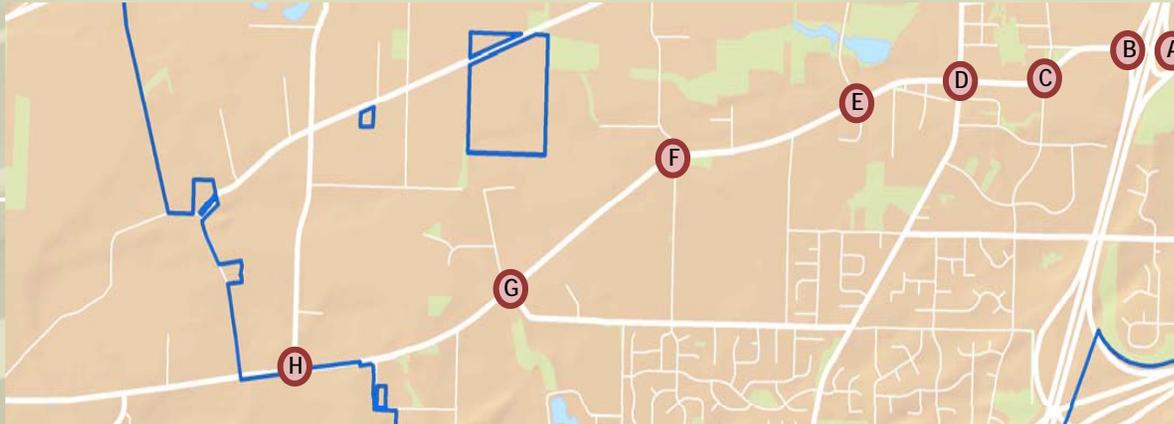
- Widens Tualatin-Sherwood Road to five lanes between Teton and Cipole
- Road is currently five lanes east of Teton



Option #2: Retain Three Lane Section

- One travel lane in each direction
- Center turn lane
- Retains shoulder bicycle lanes and sidewalks
- Coordinated signal timing
- Spot improvements at key intersections

What Do These Options Do For Traffic?



PM Peak Hour Operations

Tualatin-Sherwood Road &	2011 Existing	Retain Three Lane Cross Section	Widen to Full Five-Lane Cross Section
A I-5 Northbound	0.68 (B)	0.78 (B)	0.78 (B)
B I-5 Southbound	0.79 (D)	0.90 (D)	0.90 (D)
C Martinazzi Ave	0.94 (D)	1.02 (E)	1.02 (E)
D Boones Ferry Road	0.93 (D)	1.31 (F)	1.31 (F)
E 90 th Avenue	0.60 (C)	0.78 (C)	0.78 (C)
F Teton Avenue	0.79 (D)	0.95 (E)	0.95 (E)
G Avery St	0.71 (B)	0.99 (E)	0.92 (D)
H 124 th Avenue	0.60 (C)	1.33 (F)	0.92 (C)

V/C ratio (Level-of-Service)

Other Connectivity Options

Option	West of Boones Ferry Rd	East of Boones Ferry Road
65 th Extension	+ 50 vehicles ↑	+180 vehicles ↑
North/South Connection	+ 170 vehicles ↑	-50 vehicles ↓
Hybrid (both 65 th and North/South)	+130 vehicles ↑	+80 vehicles ↑
TSM Option	Negligible	Negligible

What are the Other Benefits to Tualatin?

Area	Five-Lane	Three-Lane
Design Constraints	<ul style="list-style-type: none">• Setbacks appear to allow widening with minor impacts to properties• Some drainage/water quality basins may require relocation	<ul style="list-style-type: none">• None – this largely retains existing cross section. Widening at key intersections could be accommodated with no major design concerns
Environmental / Policy	<ul style="list-style-type: none">• Project is included in Washington County TSP	<ul style="list-style-type: none">• This option is not consistent with the Washington County TSP



Discussion

TTF recommendation:
Move five-lane option forward
to summit



Refinement Area #6: Boones Ferry Road



Goal Statement

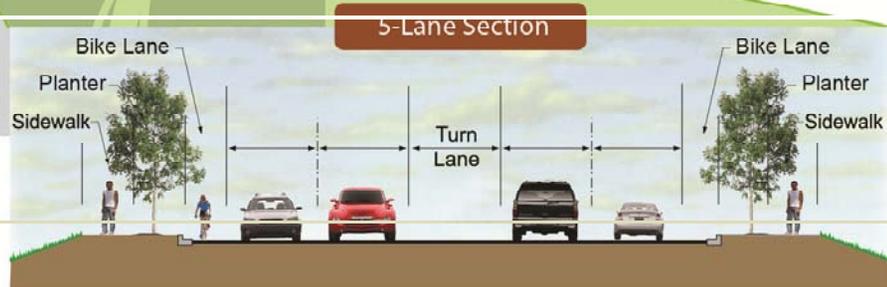
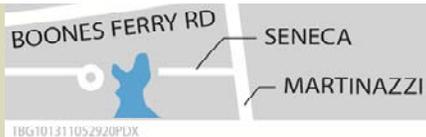
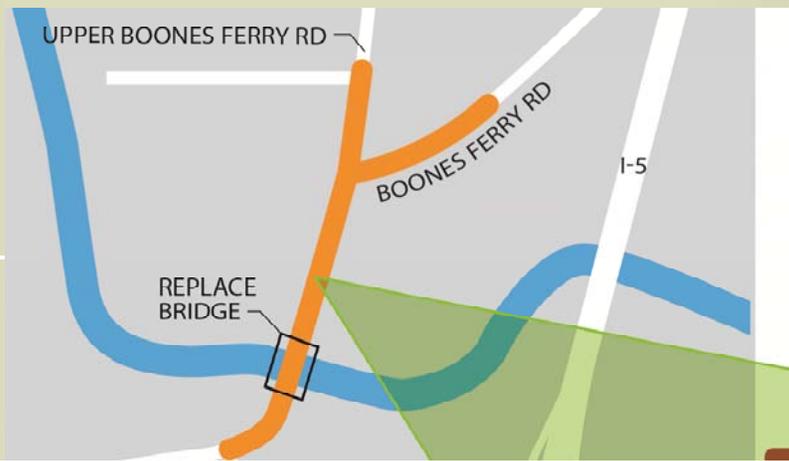
Reduce congestion and improve safety on
Boones Ferry Road throughout
Tualatin

Three Segments of Boones Ferry Road

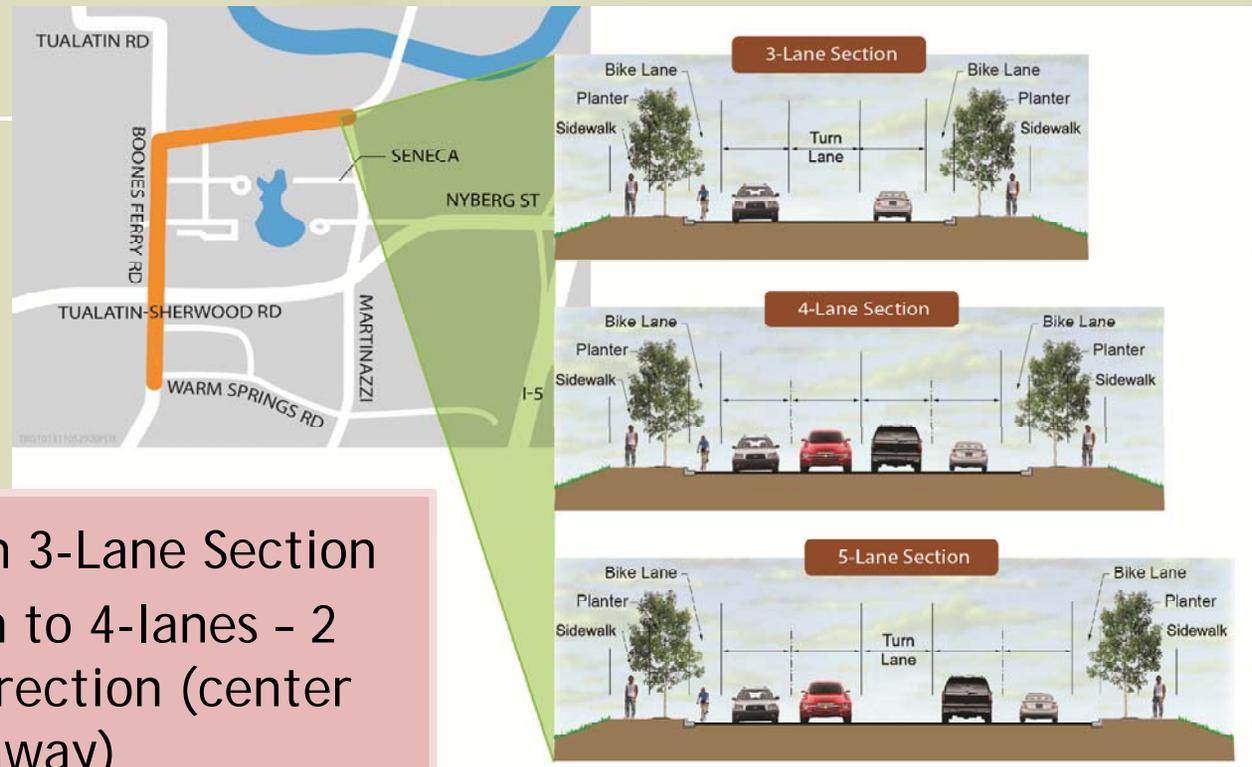


Segment A: North of Martinazzi

- Widen to five lanes from intersection with Lower Boones Ferry to bridge
- Replace current bridge, widen to four lanes with bike lanes and sidewalks
- Transition to three lanes south of bridge with transition at Martinazzi (left turn lane)

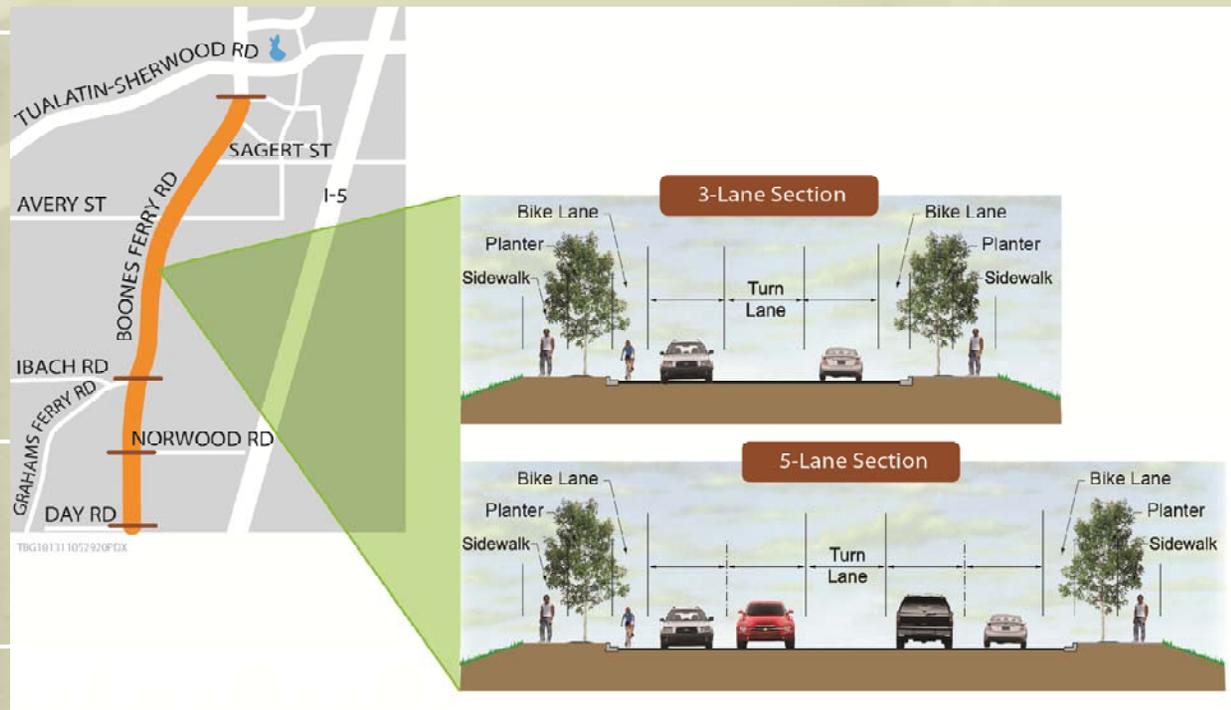


Segment B: Through Downtown



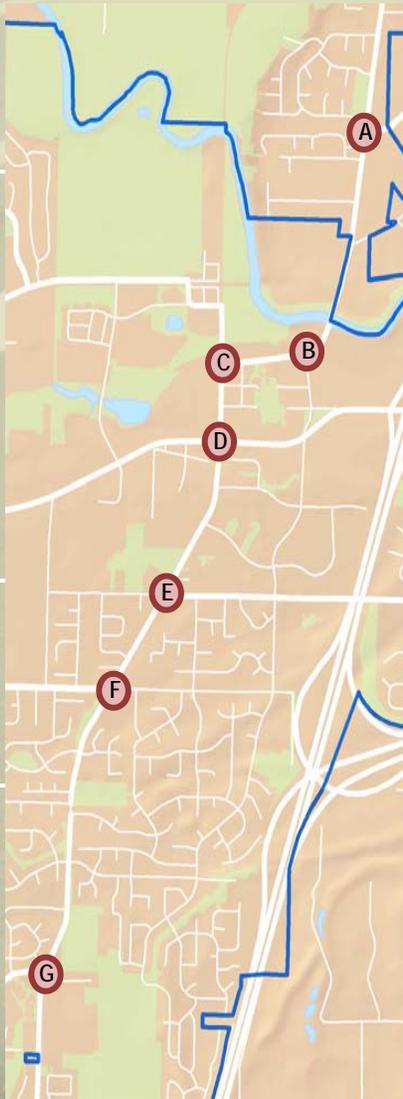
- Option 1: Retain 3-Lane Section
- Option 2: Widen to 4-lanes - 2 lanes in each direction (center turn lane goes away)
- Option 3: Widen to 5-lanes - 2 lanes in each direction with center turn lane

Segment C: South of Warm Springs



- Option 1: 3-lane section with widening at key intersections, coordinated signal timing
- Option 2: 5-lane section (2 travel lanes in each direction with center turn lane)

Boones Ferry Road Traffic: All Options



PM Peak Hour Operations

Boones Ferry Road & [Letter]	2011 Existing	2035 No-Build	Widen South of Tualatin-Sherwood Rd to Norwood	Widen North of Martinazzi to Lower Boones
A Lower Boones Ferry	0.76 (C)	1.11 (E)	1.11 (E)	0.89 (C)
B Martinazzi Ave	0.89 (D)	1.26 (F)	1.26 (F)	1.33 (F)
C Tualatin Road	0.62 (B)	0.86 (C)	0.86 (C)	0.92 (C)
D Tualatin-Sherwood Rd	0.93 (D)	1.31 (F)	1.30 (F)	1.31 (F)
E Sagert St	0.75 (C)	1.11 (E)	0.84 (C)	1.11 (E)
F Avery St	0.87 (C)	1.15 (F)	0.96 (D)	1.15 (F)
G Ibach St	0.70 (B)	0.98 (D)	0.88 (C)	0.98 (D)

V/C ratio (Level-of-Service)

Other Connectivity Options

Option	South of Tualatin-Sherwood Rd	TSR to Martinazzi Rd	North of Martinazzi
65 th Extension	- 70 vehicles ↓	-180 vehicles ↓	-440 vehicles ↓
North/South Connection	+ 520 vehicles ↑	-270 vehicles ↓	-570 vehicles ↓
Hybrid (both 65 th and North/South)	+220 vehicles ↑	-500 vehicles ↓	-890 vehicles ↓

What are the Benefits for Tualatin?

Area		Segment A	Segment B	Segment C
Design	3-lane	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> No impacts
	4-lane	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Would require ROW Access impacts 	<ul style="list-style-type: none"> N/A
	5-lane	<ul style="list-style-type: none"> Minor impacts Little ROW needed Railroad coordination needed 	<ul style="list-style-type: none"> Would require additional ROW Would require reconstructed accesses 	<ul style="list-style-type: none"> Could improve curves and grade for sight distance improvements Some structures close to ROW line
Environmental/ Policy	3-lane	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None
	4-lane	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Business impacts Difficult turning movements 	<ul style="list-style-type: none"> N/A
	5-lane	<ul style="list-style-type: none"> Some landscaping impacts adjacent to road 	<ul style="list-style-type: none"> Impacts businesses in this segment 	<ul style="list-style-type: none"> Impacts setbacks and landscaping (no houses) Near Woodrose Nature Park



Discussion

TTF recommendation: **Move forward with**

Segment A: Five lanes

Segment B: Three lanes

Segment C: Three lanes

To the summit



Refinement Area #7: Downtown Connectivity

Tualatin-Sherwood Road/Boones Ferry Road Intersection



Notes:

- Signal timing is already optimized at this intersection, but other phasing/timing/coordination alternatives may be tested
- Changing the signal timing to 120 seconds could improve the V/C ratio from 1.30 (F) to 1.22 (F)
- Intersection is well over capacity, even a test of 140 second signal cycle with right turns on every approach yields a V/C of 1.06 (E)

PM Peak Hour Operations

	Tualatin-Sherwood Road/Boones Ferry Road
Existing Conditions	0.93 (D)
2035 No-Build	1.31 (F)
Added Eastbound Right Turn Pocket	1.18 (E)
Added Westbound Right Turn Pocket	1.31 (F)
Added Southbound Right Turn Pocket	1.18 (E)

V/C ratio (Level-of-Service)

Other Connectivity Options

Option	West of Boones Ferry Rd	East of Boones Ferry Road	North of TSR	South of TSR
65 th Extension	+ 50 vehicles ↑	+180 vehicles ↑	-60 vehicles ↓	- 70 vehicles ↓
North/South Connection	+ 170 vehicles ↑	-50 vehicles ↑	+420 vehicles ↑	+ 520 vehicles ↑
Hybrid (both 65 th and North/South)	+130 vehicles ↑	+80 vehicles ↑	+280 vehicles ↑	+220 vehicles ↑
TSM Option	Negligible	Negligible	Negligible	Negligible

Connectivity in the Downtown Core



- Auto bridge over the lake was screened out
- Auto tunnel under the lake was screened out
- At least we can improve connectivity for bicyclists and pedestrians



Discussion

TTF recommendation: **No**, with changes to Lake, **Yes**, with recommendations to Boones Ferry and Tualatin Sherwood Road intersection



City of Tualatin

Putting it all Together

Tualatin TSP

Presentation to
Tualatin Transportation Task Force
September 20, 2012

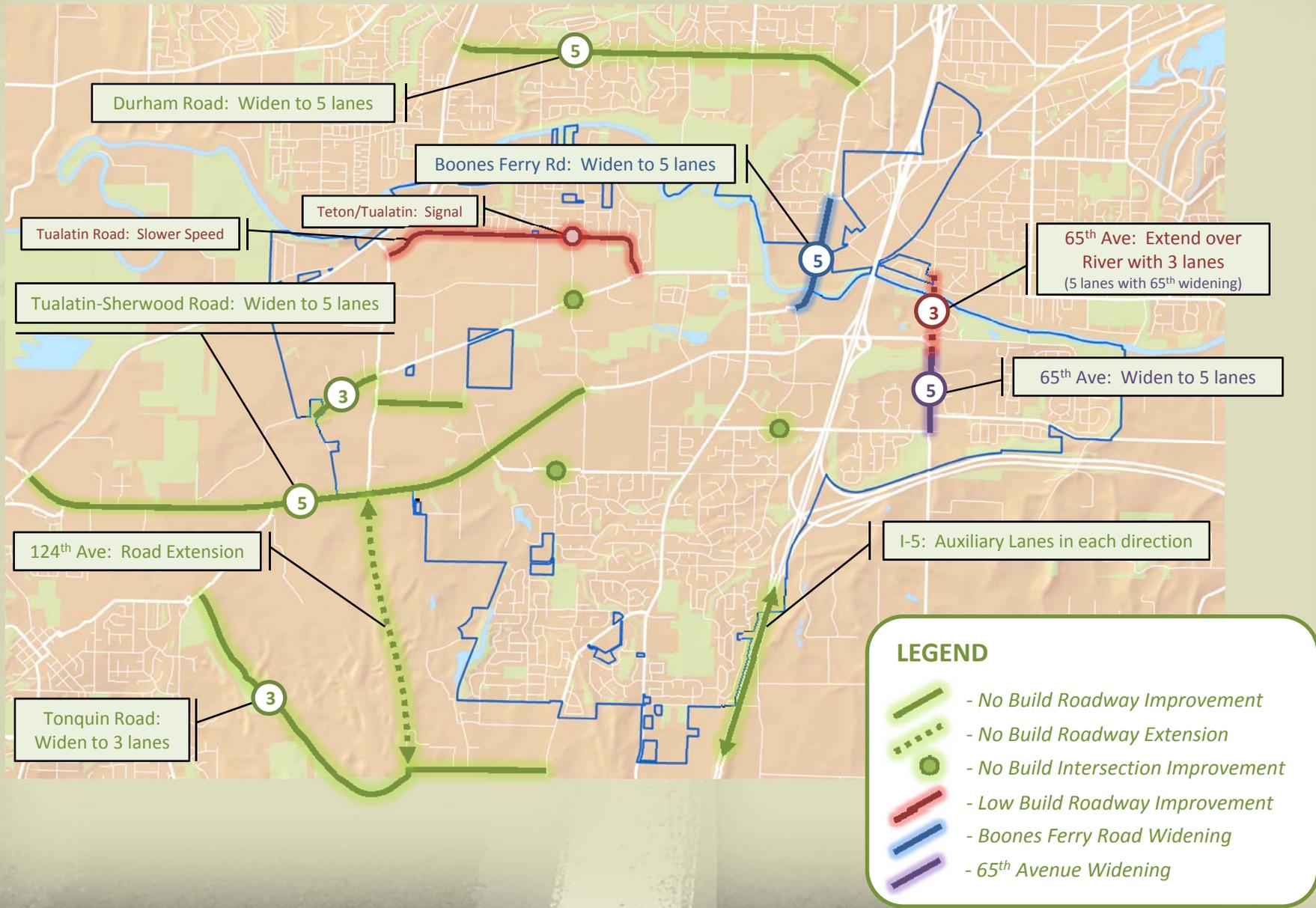
Scenarios



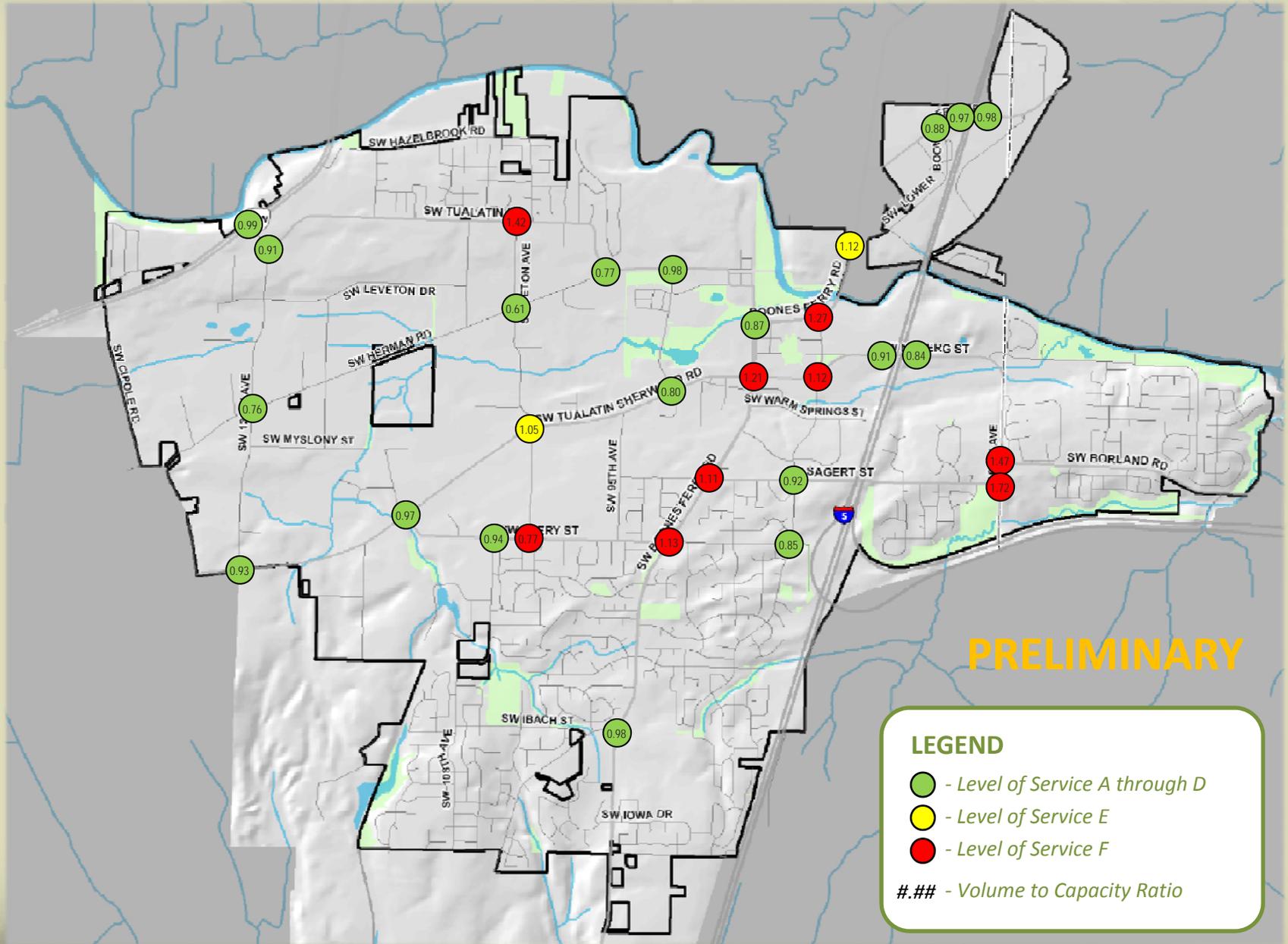
Scenarios Rely on TTF Guidance

1. Includes compilation of guidance from 7 refinement areas
2. Looked at various options for 65th Avenue
 - a. No extension
 - b. 2-lane bridge extension
 - c. 5-lane widening of 65th with 4-lane bridge extension
3. Looked at widening Boones Ferry Road north of Martinazzi

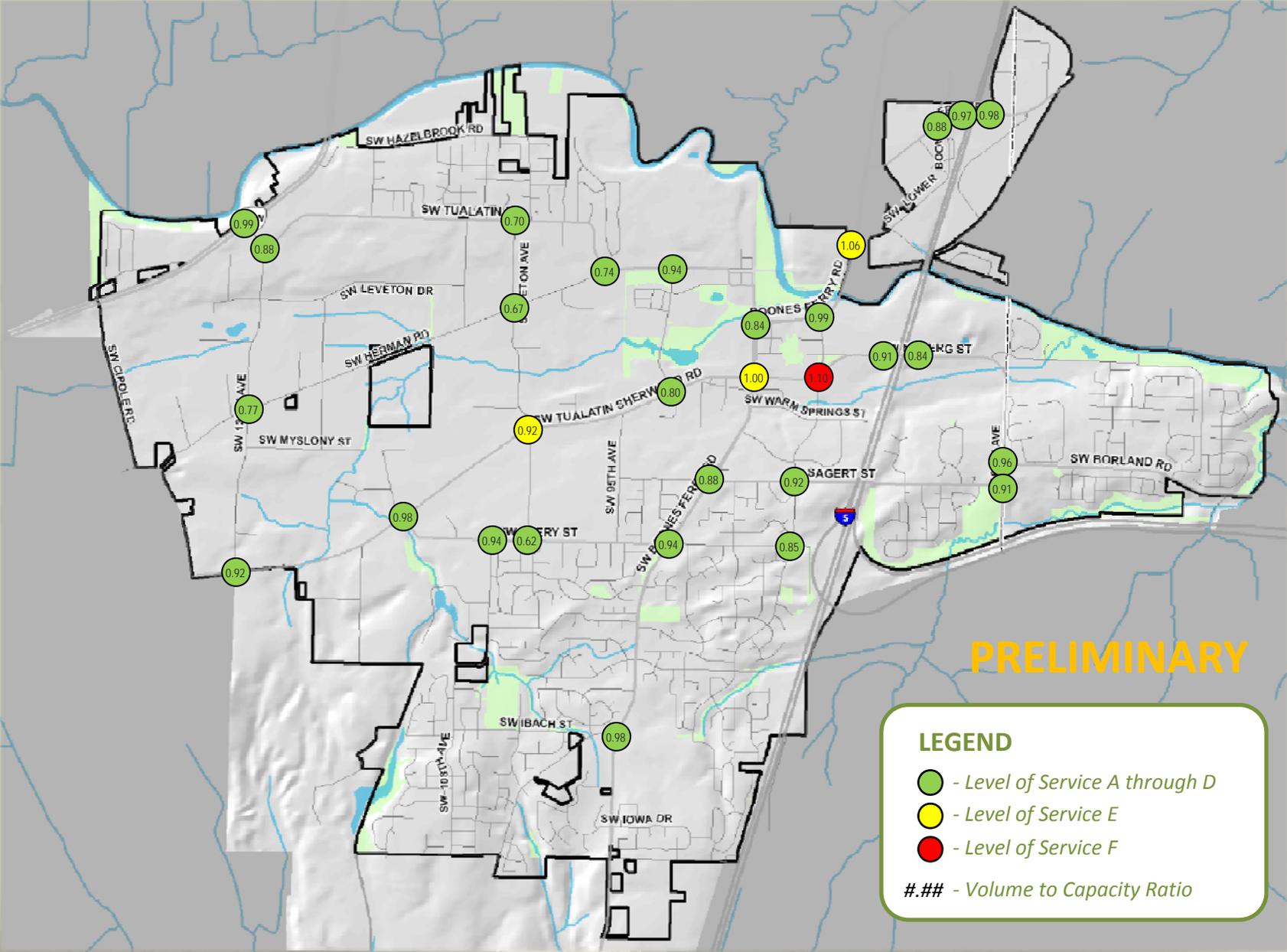
Assumed Future 2035 Scenarios and Roadway Projects



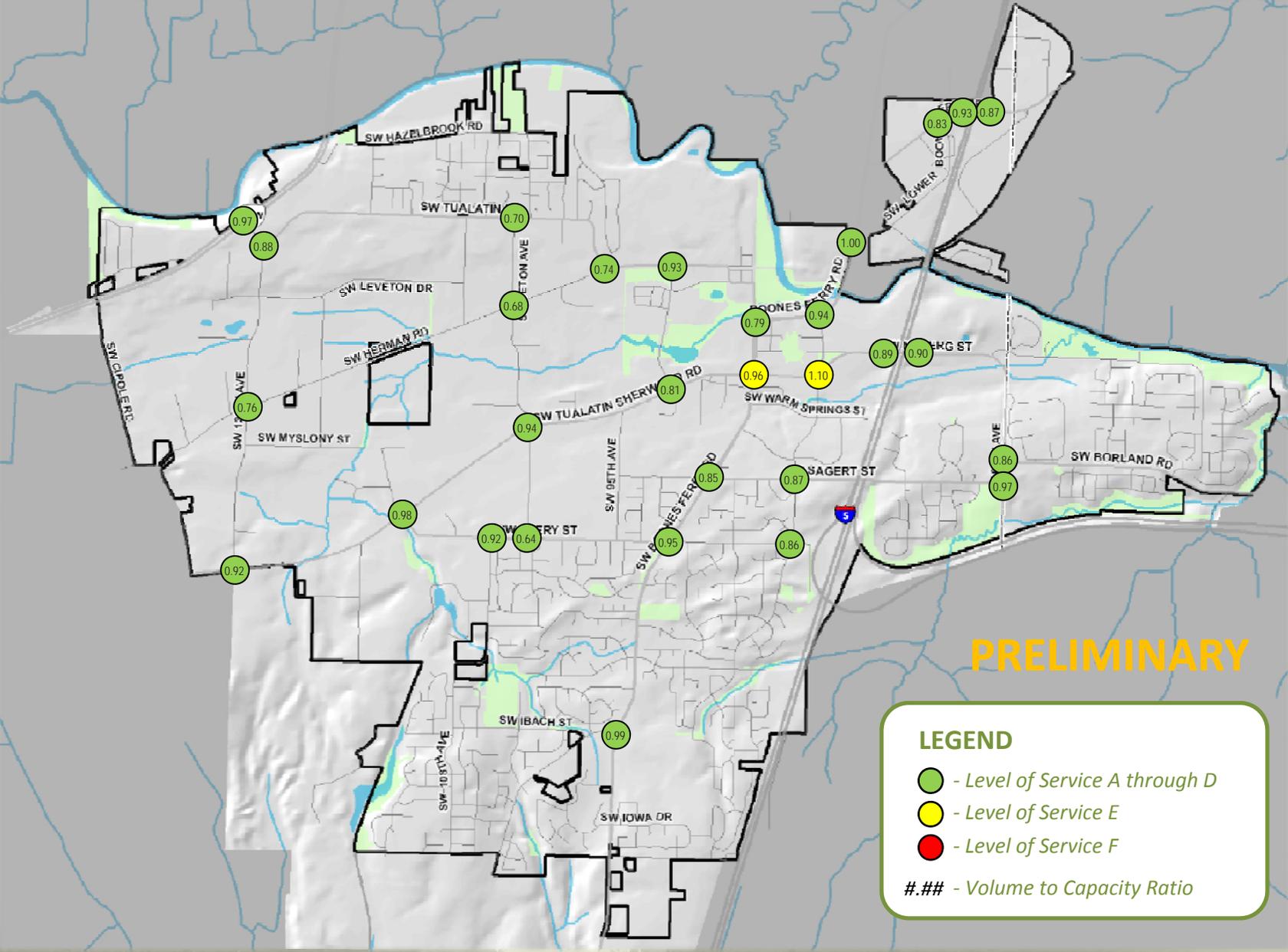
No Build Option



LOW Build Option - Without 65th Ave Extension



LOW Build Option - WITH 65th Ave Extension and 5 Lane

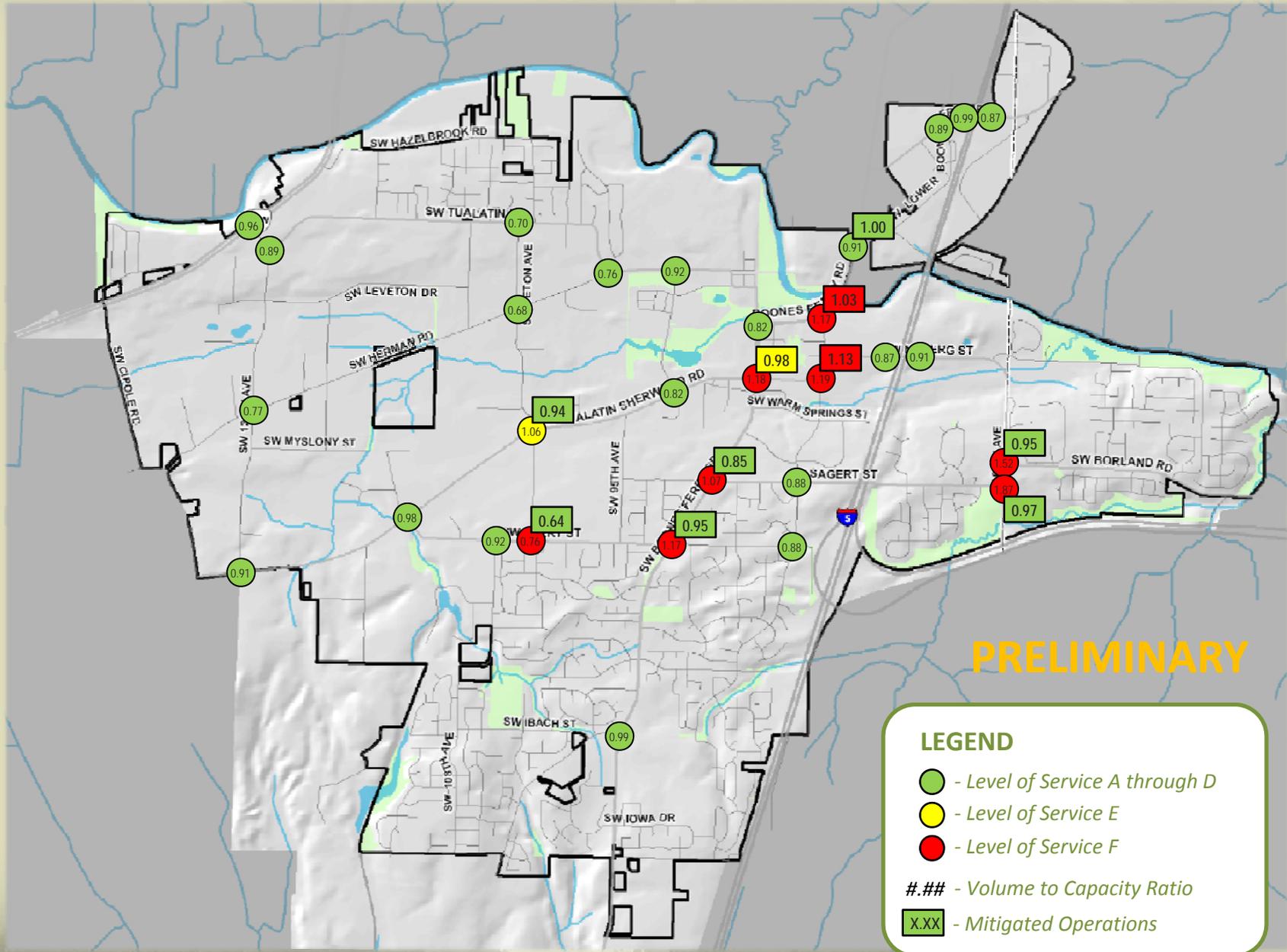


PRELIMINARY

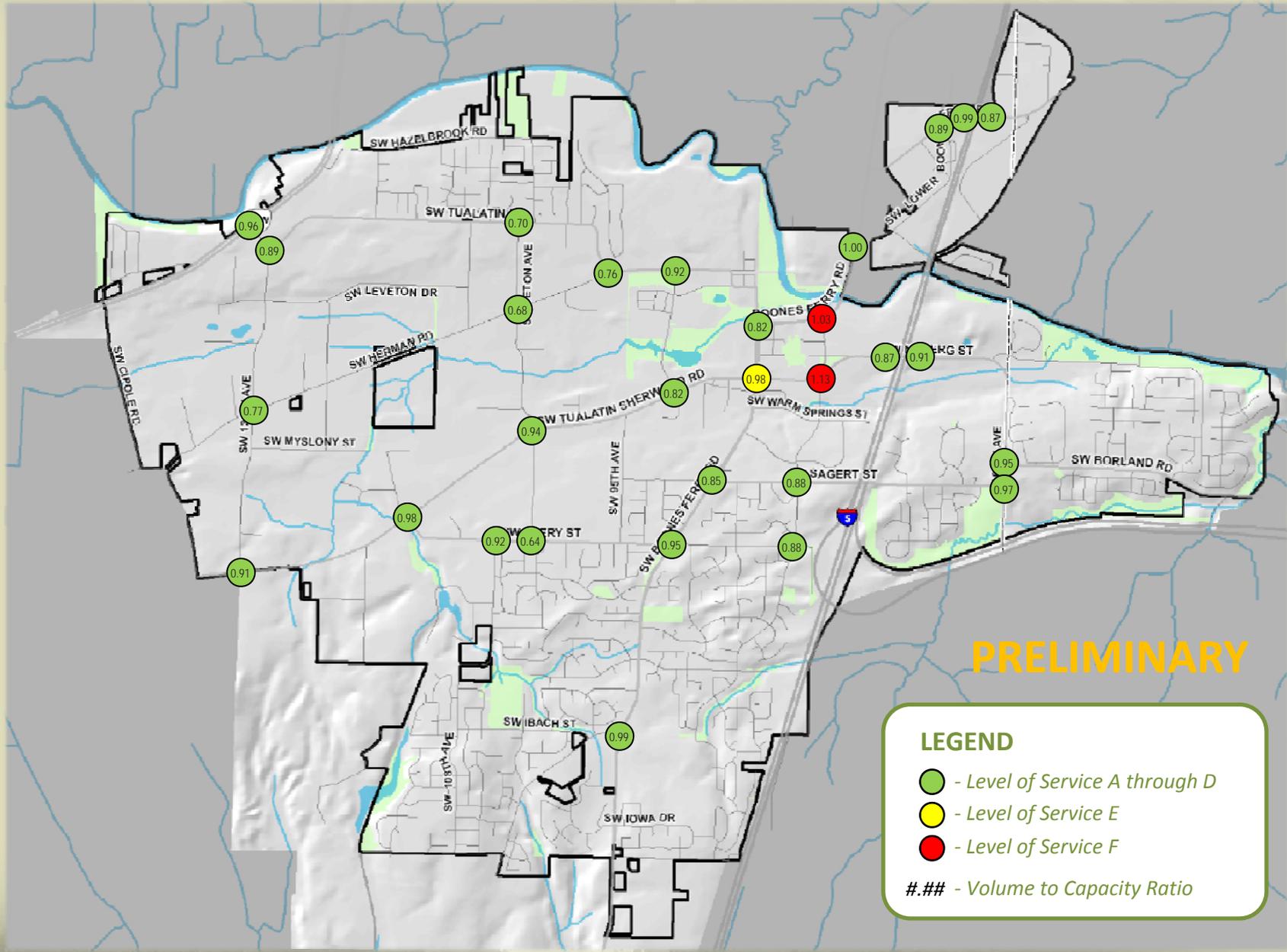
LEGEND

- - Level of Service A through D
 - - Level of Service E
 - - Level of Service F
- ### - Volume to Capacity Ratio

LOW Build Option - WITH Boones Ferry Road North Widening



LOW Build Option - WITH Boones Ferry Road North Widening



PRELIMINARY

LEGEND

- - Level of Service A through D
- - Level of Service E
- - Level of Service F
- ### - Volume to Capacity Ratio



Technical Memorandum

City-Wide Traffic Analysis Results for Roadway Capacity Scenarios

PREPARED FOR: Tualatin Transportation System Plan
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DATE: October 17, 2012

This memorandum highlights traffic analysis findings for six roadway infrastructure scenarios prepared for Tualatin's Transportation System Plan (TSP). The purpose is to provide information about the benefits and tradeoffs of various capacity projects being considered in the TSP, with a focus on a possible extension of 65th Avenue to the north and the possible widening of Boones Ferry Road north of Martinazzi. Both of these projects center on a crossing of the Tualatin River: the 65th Avenue extension would be a new crossing, and the Boones Ferry Road widening would be a widening of an existing crossing. This memorandum provides information to support decision makers and the community with finalizing TSP recommendations (fall of 2012). The analysis centers on mobility/access, one of the TSP's seven evaluation categories. The other evaluation categories are: safety, vibrant community, equity, economy, health and the environment, and ability to be implemented.

Information is organized into four sections: (1) project scenarios, which includes descriptions of the six scenarios analyzed; (2) results, which highlights the intersection operations, traffic volumes, and travel time changes associated with each scenario; (3) conclusions and recommendations; and (4) next steps.

Project Scenarios

What follows are descriptions of the six scenarios evaluated in this memo, and a description of the three components of the traffic analysis: (1) intersection level of service, (2) traffic volume shifts, and (3) travel times. Each of these three components reveals something different about overall system performance: from what it feels like to live near a major roadway capacity project, to how much time drivers spend waiting to proceed through an intersection, to what effect a project can have on the total amount of time it takes a driver to cross town.

Six scenarios were analyzed:

1. **Existing conditions.** An existing conditions analysis takes into account what drivers experience *today*. It is based on traffic counts collected in October 2011 throughout the City, site visits to

verify intersection geometry and land uses, and observed and recorded travel times (also from fall 2011). Existing conditions lay a solid foundation on which to compare all future scenarios.

2. **Future “no build.”** This scenario takes into account the projected growth in population and employment in Tualatin and elsewhere over the next 20+ years (Year 2035), assuming the transportation network will remain the same. The only transportation projects are included in this scenario are those with funding and a subset of projects on Metro’s fiscally-constrained Regional Transportation Plan (RTP), such as the extension of 124th Avenue south of Tualatin-Sherwood Road. This scenario allows us to consider what congestion concerns might arise in the future.
3. **Future “low build.”¹** The future “low build” scenario begins with the assumption that there will be “no build” and then adds in those projects that the Tualatin Task Force (TTF) agreed to unanimously during the evaluation and refinement area analysis meetings (May through August 2012). A list of projects included in the “low build” scenario is included below. This scenario does not include any changes to 65th Avenue or Boones Ferry Road north of Martinazzi Avenue.
4. **Future “low build” with 65th Avenue extension.** This scenario begins with the “low build” option and then adds an extension of 65th Avenue to the north, from Nyberg Road to the vicinity of Childs Road north of the Tualatin River. This option was analyzed with the assumption that the existing three-lane cross section of 65th Avenue between Nyberg Road and Sagert Street would be retained and the northerly extension would transition to a two-lane cross section over the river, continuing as a two-or three-lane roadway towards Lakeview Boulevard.
5. **Future “low build” with Boones Ferry Road widening.** This scenario begins with the “low build” option and then adds a widening of Boones Ferry Road to five lanes north of Martinazzi Avenue. The existing cross section of three lanes would be retained through Tualatin’s downtown core.
6. **Future “low build” with 65th extension and Boones Ferry Road widening.** This scenario begins with the “low build” option and then adds a widening of Boones Ferry Road to five lanes north of Martinazzi Avenue and an extension of 65th Avenue to the north, from Nyberg Road to the vicinity of Childs Road north of the Tualatin River. This scenario is a combination of Scenarios 4 and 5.

The traffic analysis for each of these scenarios relies on both the traffic counts collected during the fall of 2011 and Metro’s regional travel demand model. For each of the scenarios analyzed, major infrastructure improvements were:

- (1) Coded into the Metro regional travel demand model;
- (2) Post-processed to be calibrated to traffic counts taken for the TSP; and
- (3) Analyzed in the Synchro operational analysis software at an intersection-specific scale.

¹ The “low-build” scenario assumes the following projects:

- Tualatin-Sherwood Road as a five lane facility (throughout Tualatin, including widening of Sherwood segment as per Regional Transportation Plan)
- Boones Ferry Road as a three lane facility for entire length
- Herman Road as a two lane facility from Teton Ave to Tualatin Road
- Tualatin Road as a "30 mph" roadway
- Signal at Teton Avenue/Tualatin Road
- Teton Avenue as a three lane road from Herman Road to Avery Street

Intersection Level of Service

An analysis of intersection-level traffic operations helps to understand the driver experience of waiting at specific intersections along the network. The wait can be long, frustrating, and—in some cases—unsafe when traffic volumes are high, when there is a mix of different types of users (e.g., railroad trains, freight trucks, bicycles), or when there are multiple approaches and traffic movements. To mitigate this, traffic engineers work to keep intersection performance within certain congestion thresholds or mobility standards. Mobility standards can vary depending on where the intersection is located, who owns (and therefore controls) it, and its main purpose.

Depending on the location, roadways and intersections are owned and operated by one of three jurisdictions: (1) City of Tualatin, (2) Washington County, or (3) the Oregon Department of Transportation (ODOT). These jurisdictions measure traffic operations in different ways – either by level of service (LOS) or by volume-to-capacity (v/c). These terms are defined below:

- Level of service (LOS): A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity. This condition is typically evident in cars waiting through more than one signal cycle to get through an intersection.
- Volume-to-capacity (v/c) ratio: This measure is a range and represents how full an intersection is with vehicles. The ratio is similar to a percentage, for example, if a glass of water were 75 percent full, it would have a v/c ratio of 0.75. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If an intersection reports v/c higher than 1.0, it indicates that volumes are higher than capacity.

The City of Tualatin uses a LOS standard; depending on intersection type, the acceptable standard is either LOS D or LOS E. Washington County and ODOT use a v/c standard, which compares traffic volumes to intersection capacity. Both agencies define the acceptable mobility standard at or under a 0.99 v/c.

The next section of this memorandum compares intersection-level performance with congestion thresholds at these intersections:

1. Along Tualatin-Sherwood Road
 - a. Tualatin-Sherwood Road/124th Avenue
 - b. Tualatin-Sherwood Road/Boones Ferry Road
 - c. Tualatin-Sherwood Road/Martinazzi Avenue
2. Along Boones Ferry Road
 - a. Boones Ferry Road/Tualatin-Sherwood Road
 - b. Boones Ferry Road/Tualatin Road
 - c. Boones Ferry Road/Martinazzi Avenue
 - d. Boones Ferry Road/Lower Boones Ferry Road
3. Along 65th Avenue
 - a. 65th Avenue/Sagert Street
 - b. 65th Avenue/Borland Road
 - c. 65th Avenue/Nyberg Road

Shifts in Traffic Volumes from One Roadway to Another

Coding infrastructure improvements into Metro’s travel demand model—Step 1 of the analysis process outlined at the top of this page—will provide key outputs that will be helpful in understanding the major trends of specific infrastructure projects. One of those trends is traffic volume shifts. Volume shifts provide an understanding of the scale of activity both at new connections and at the existing connections that are “relieved” by a new one. For example, when a new roadway is added to the network, volume shift diagrams help illustrate the number of trips that involve the new roadway, and—of those trips—how many are new trips versus those that have been diverted from elsewhere in the system. This analysis is only relevant to Scenarios 4-6, as these are the scenarios which introduce one or both of the river crossing projects that could affect traffic routing. Further, volume shifts were only recorded for these key roadways:

- Tualatin Road
- Herman Road
- 99W
- I-5
- Boones Ferry Road
- Tualatin-Sherwood Road
- Martinazzi Avenue
- Sagert Street
- Borland Road
- 65th Avenue
- Nyberg Road

Travel Time

Travel time is one of the most intuitive measures of traffic performance. Drivers know the amount of time it takes to get from one place to another, and the extent to which congestion can change travel times. What follows is a comparison of travel times, for each scenario, between these key north-south and east-west destination pairs:

- Boones Ferry Road
 - Tualatin High School to Bridgeport Village
 - Tualatin High School to Nyberg Interchange
- Tualatin Road
 - 115th/Tualatin to Bridgeport Village
 - 115th/Tualatin to Nyberg Interchange
- Tualatin-Sherwood Road (TSR)
 - TSR/Cipole Road to Bridgeport Village
 - TSR/Cipole Road to Nyberg Interchange
- Borland Road and 65th Avenue
 - Bridgeport Elementary School to Nyberg Interchange
 - Sagert/65th to Bridgeport Village

Results

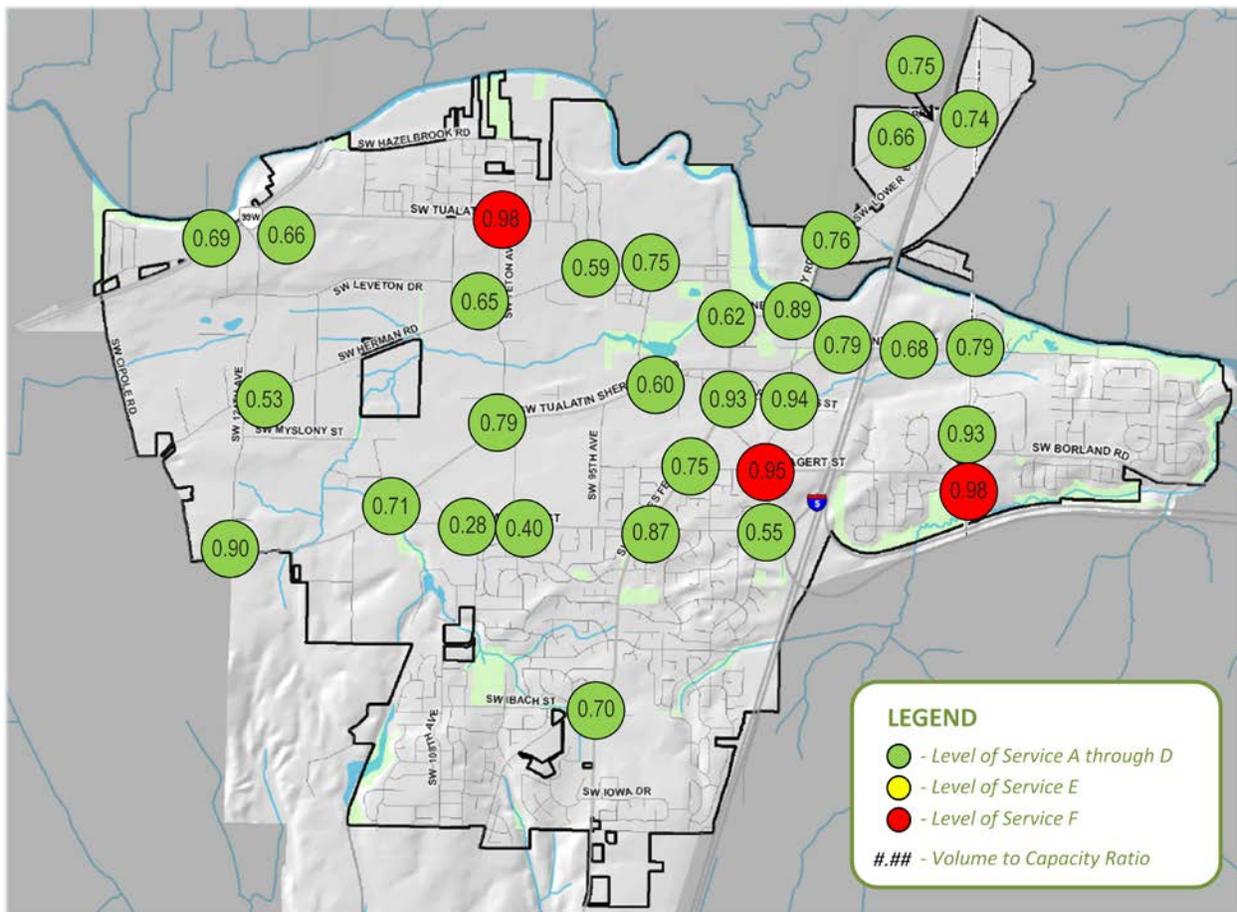
This section includes a description of findings from intersection operations, traffic volume shifts, and travel times for each of the scenarios outlined in the previous section. Appendix A provides the traffic operations results by scenario with and without intersection-level optimizations.

Scenario 1: Existing Conditions

Traffic Operations

Figure 1 shows traffic conditions for all 30 study intersections in Tualatin as of October 2011. It is based on counts collected on weekdays during the morning (7:00 a.m. to 9:00 a.m.) and afternoon (4:00 p.m. to 6:00 p.m.) traffic rush hours. In addition, 24-hour counts were conducted at 11 locations on key roadways in Tualatin to provide an understanding of the fluctuations in traffic throughout the day and night. Figure 1 illustrates the current operations within the City of Tualatin. Green circles indicate the intersection meets City accepted standards and red circles indicate that standards are not met. Numbers within the circles indicate the intersection v/c ratio. Three intersections currently do not meet City accepted standards: (1) Tualatin Road/Teton Road, which performs at an LOS F with a v/c ratio of 0.98, (2) 65th Avenue/Sagert Street, which performs at an LOS F with a v/c ratio of 0.98; and (3) Martinazzi Avenue/Sagert Street, which performs at an LOS F with a v/c ratio of 0.95.

Figure 1. Intersection Operations, Existing Conditions



Travel Times

In addition to intersection and daily volume profiles, the project team collected corridor data related to travel times and speeds during the p.m. peak period. These travel times are recorded in Table 1 below. As can be seen, it takes between 9 and 10 minutes to drive north-south through Tualatin on Boones Ferry Road, and between 11 and 13 minutes to drive east-west through the City on Tualatin-Sherwood Road. These current travel times are compared to various future scenarios in the pages that follow.

TABLE 1
 Existing (2011) P.M. Peak Period (4:00 p.m. to 6:00 p.m.) Travel Time Data

Corridor	From	To	Average Travel Time
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	10 min, 20 sec
	Bridgeport Village	Tualatin High School	9 min, 10 sec
SW Boones Ferry Road	Tualatin High School	Nyberg Interchange	7 min, 25 sec
	Nyberg Interchange	Tualatin High School	7 min, 5 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	8 min, 35 sec
	Bridgeport Village	115th Avenue	8 min, 30 sec
SW Tualatin Road	115th Avenue	Nyberg Interchange	8 minutes
	Nyberg Interchange	115th Avenue	8 min, 40 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	11 min, 40 sec
	Bridgeport Village	Cipole Road	13 minutes
SW Tualatin-Sherwood Road	Cipole Road	Nyberg Interchange	8 min, 40 sec
	Nyberg Interchange	Cipole Road	10 min, 10 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 10 sec
	Nyberg Interchange	Bridgeport Elementary	2 min, 20 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Bridgeport Village	9 min, 10 sec
	Bridgeport Village	Bridgeport Elementary	8 min, 25 sec

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

NOTE: All travel times are rounded to the nearest 5 seconds

Scenario 2: Future “No Build” (2035)

Traffic Operations

By 2035, there will be much more congestion throughout the network in Tualatin, both along Tualatin-Sherwood Road (intersection with Teton Road, Boones Ferry Road, and Martinazzi Avenue), along Boones Ferry Road (intersections with Lower Boones Ferry Road, Martinazzi Avenue, Tualatin-Sherwood Road, Sagert Road, and Avery Street), along Teton Avenue (intersections with Tualatin Road, Tualatin-Sherwood Road, and Avery Street), and along 65th Avenue (intersections with Borland Road and Sagert Street). Operations are illustrated in Figure 2 below.

Travel Times

Travel times are summarized in Table 2 for the future (Year 2035) “no build” scenario. Travel times in the north-south direction would increase over existing conditions substantially, from between 9 and 10 minutes to between 12 and 15 minutes. Travel time increases would be more dramatic in the east-west direction: from between 11 and 13 minutes to approximately 17 minutes. Table 2 shows the travel time differences between the future no build and existing conditions. In most instances travel times increase by at least one minute. Some locations travel times increase by over 4 minutes – for example between Tualatin High School and Bridgeport Village, between 115th Avenue and Bridgeport Village, and between Bridgeport Village and Cipole Road. One destination pairing (Bridgeport Village to Bridgeport Elementary) saw a travel time increase of 6 minutes.

Figure 2. Intersection Operations, Future (2035) "No Build" Conditions

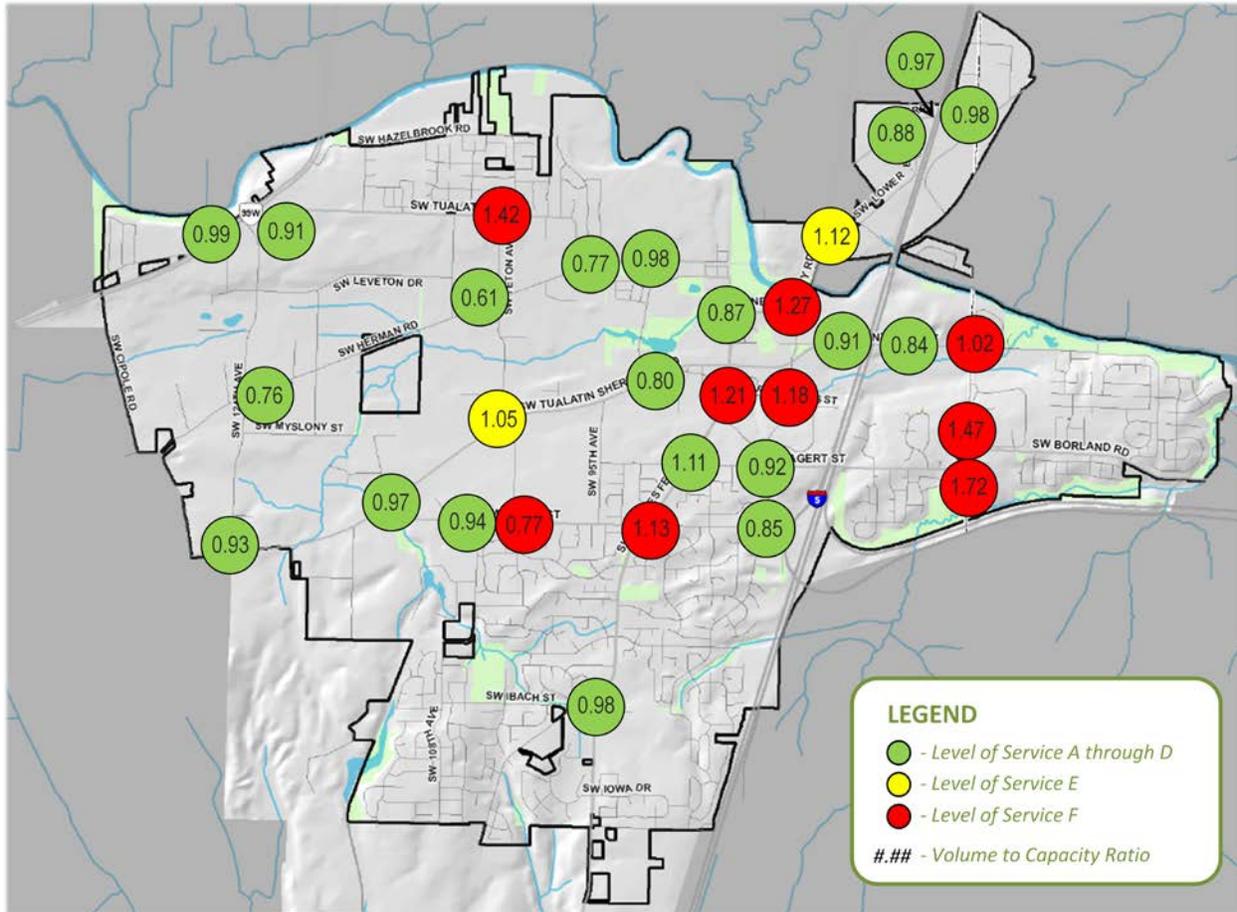


TABLE 2
 Future (2035) "No Build" P.M. Peak Period (4:00 p.m. to 6:00 p.m.) Travel Time Data

Corridor	From	To	Average Travel Time	Difference from Existing Conditions
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	15 min, 5 sec	+4 min, 45 sec
	Bridgeport Village	Tualatin High School	12 min, 10 sec	+3 min
SW Boones Ferry Road	Tualatin High School	Nyberg Interchange	9 min, 40 sec	+2 min, 15 sec
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	+1 min, 5 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	13 minutes	+4 min, 25 sec
	Bridgeport Village	115th Avenue	11 min, 40 sec	+3 min, 10 sec
SW Tualatin Road	115th Avenue	Nyberg Interchange	10 min, 35 sec	+2 min, 35 sec
	Nyberg Interchange	115th Avenue	10 min, 25 sec	+1 min, 45 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	17 minutes	+5 min, 20 sec
	Bridgeport Village	Cipole Road	17 min, 20 sec	+4 min, 20 sec
SW Tualatin-Sherwood Road	Cipole Road	Nyberg Interchange	11 minutes 35 sec	+2 min, 55 sec
	Nyberg Interchange	Cipole Road	11 min, 50 sec	+1 min, 45 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	+15 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	+1 min, 10 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Bridgeport Village	12 min, 55 sec	+3 min, 45 sec
	Bridgeport Village	Bridgeport Elementary	14 min, 25 sec	+6 min

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

NOTE: All travel times are rounded to the nearest 5 seconds

Scenario 3: Future “Low Build”

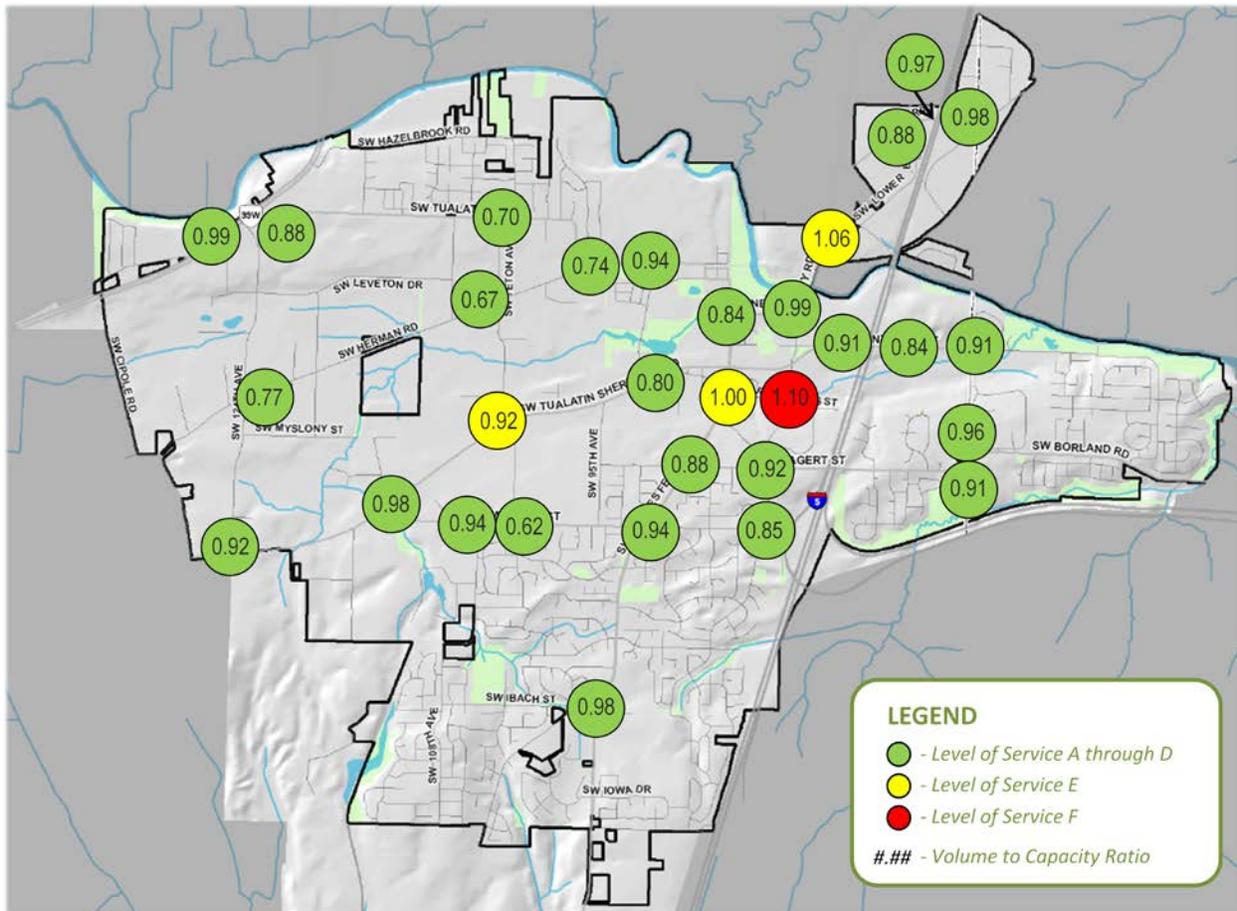
Traffic Operations

As described above, the future “low build” scenario serves as a starting point that represents all of the roadway infrastructure projects agreed to by the Task Force, Planning Commission, Tualatin Parks Advisory Committee, and City Council through the project evaluation and refinement area evaluation phases of the TSP. These include widening Tualatin-Sherwood Road between Cipole and Teton Roads, widening Teton Road to three lanes, and other intersection-specific treatments.

Raw outputs from the traffic model Synchro (as shown in Appendix A) indicate that up to ten study intersections have a v/c higher than 1.0 and/or LOS of F. However, intersections can be optimized to improve performance through one or more of these treatments:

- Signal timing adjustments
- Adding a turn lane in one or two directions (such as an eastbound left-turn lane)
- Restriping an approach lane to allow turn movements from two lanes instead of one
- Restricting a driveway approach to right-in, right-out (only used if traffic volumes entering facility are very low)

Figure 3. Intersection Operations, Future (2035) “Low Build”



With adjustments, traffic operations can improve. As shown in Figure 3, three intersections would operate with v/c at or higher than 1.0; two of these (Boones Ferry Road/Lower Boones Ferry Road and Boones Ferry Road/Tualatin-Sherwood Road) would operate at an LOS E and one (Boones Ferry Road

and Martinazzi Avenue) operates at an LOS F. One additional intersection (Tualatin-Sherwood Road and Teton Avenue) would operate at an LOS E, but meets Washington County standards with a v/c of 0.92.

Travel Times

Travel times are summarized in Table 3 for the future (Year 2035) “low build” scenario.

TABLE 3
Future (2035) “Low Build” P.M. Peak Period (4:00 a.m. to 6:00 p.m.) Travel Time Data

Corridor	From	To	Average Travel Time	Difference from Future No Build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	15 min, 5 sec	No difference
	Bridgeport Village	Tualatin High School	12 min, 10 sec	No difference
SW Boones Ferry Road	Tualatin High School	Nyberg Interchange	9 min, 40 sec	No difference
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	No difference
SW Tualatin Road	115th Avenue	Bridgeport Village	13 min, 30 sec	+30 sec
	Bridgeport Village	115th Avenue	12 minutes	+20 sec
SW Tualatin Road	115th Avenue	Nyberg Interchange	10 min, 55 sec	+20 sec
	Nyberg Interchange	115th Avenue	10 min, 50 sec	+25 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	17 minutes	No difference
	Bridgeport Village	Cipole Road	17 min, 25 sec	+5 sec
SW Tualatin-Sherwood Road	Cipole Road	Nyberg Interchange	11 min, 35 sec	No difference
	Nyberg Interchange	Cipole Road	12 minutes	+10 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	No difference
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
SW Borland Road / 65 th Ave	Bridgeport Elementary	Bridgeport Village	12 min, 50 sec	-5 sec
	Bridgeport Village	Bridgeport Elementary	14 min, 25 sec	No difference

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

NOTE: All travel times are rounded to the nearest 5 seconds

Travel times in the north-south direction would not change from the “no build” condition, and would increase slightly over the “no build” condition in the east-west direction.

Scenario 4: Future “Low Build” with 65th Avenue Extension

Traffic Operations

Scenario 4 is the future “low build” (Scenario 3) with the extension of 65th Avenue to the north over the Tualatin River. Under this scenario, the cross section of 65th Avenue would remain three lanes between Nyberg Road and Sagert Street and then transition to two lanes south of Sagert Street. The northerly extension would involve three lanes transitioning to a two-lane bridge over the Tualatin River, connecting with 65th Avenue in Rivergrove in the vicinity of Childs Road.

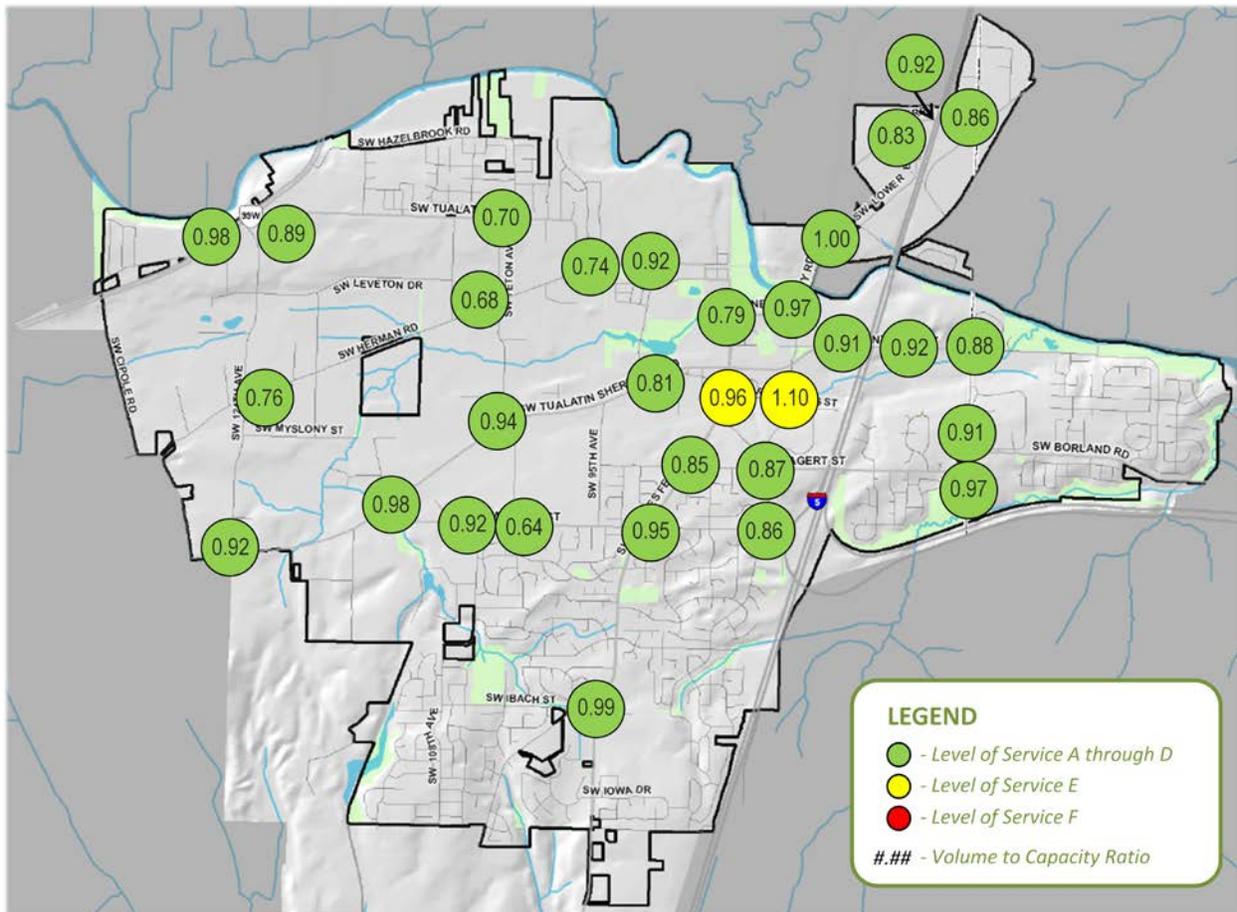
Raw outputs from the traffic model Synchro, as shown in Appendix A, indicate that up to 10 study intersections would have a v/c higher than 1.0 and/or LOS of F. However, when optimized to improve performance, traffic operations would improve. Figure 4 illustrates the traffic operations at all study intersections. Those intersections which show an improvement over the “low build” scenario alone are highlighted in Table 4 below.

TABLE 4
 Future (2035) Operational Analysis Comparison between Scenario 3 and Scenario 4

	Scenario 3 ("Low Build")		Scenario 4 ("Low Build" with 65 th Extension)	
	LOS	V/C	LOS	V/C
I-5 NB Ramps and SW Lower Boones Ferry Road	D	0.98	C	0.86
I-5 SB Ramps and SW Lower Boones Ferry Road	D	0.97	D	0.92
SW 72 nd Avenue and Lower Boones Ferry Road and Bridgeport Road	D	0.88	D	0.83
SW Boones Ferry Road and SW Lower Boones Ferry Road	E	1.12	D	1.00
SW Tualatin Road and SW Boones Ferry Road	C	0.87	C	0.79
SW Boones Ferry Road and SW Tualatin-Sherwood Road	F	1.21	E	0.96

Scenario 4 shows only one intersection (Boones Ferry Road/Martinazzi Avenue) operating with v/c higher than 1.0, and one intersection (Boones Ferry Road/Lower Boones Ferry Road) operates at a v/c of a 1.0. No intersections would operate with an LOS F. Two intersections (Boones Ferry Road/Martinazzi Avenue and Boones Ferry Road/Tualatin-Sherwood Road) would operate at an LOS E. In this scenario, Boones Ferry Road/Tualatin-Sherwood Road would meet Washington County standards with a v/c of 0.96.

Figure 4. Intersection Operations, Future (2035) "Low Build" with 65th Avenue Extension



Traffic Volume Shifts

In this scenario, traffic volumes would shift to 65th Avenue and drivers would use the new crossing between Tualatin and Lake Oswego/Rivergrove. Moderate increases in traffic volumes would occur along 65th Avenue between Nyberg Street and Sagert Street and between Childs Road and Lakeview Boulevard. Minor increases in traffic would occur south of Sagert Street to Norwood Road, along Childs Road, along Sagert Street, and along Nyberg Road east of 65th Avenue. Traffic volumes would decrease along I-5 between the Lower Boones Ferry Road and Nyberg Road interchanges, which indicates that some drivers would take I-5 for short, local trips in this location. Minor to moderate traffic decreases would also occur on Boones Ferry Road between Lower Boones Ferry Road and Sagert Street and along Stafford Road.

Travel Times

Travel times are summarized in Table 5 below for the future (Year 2035) “low build” scenario with an extension of 65th Avenue over the Tualatin River.

TABLE 5
 Future (2035) “Low Build” with 65th Avenue Extension P.M. Peak Period (4:00 p.m. to 6:00 p.m.) Travel Time Data

Corridor	From	To	Average Travel Time	Difference from Future “No Build”
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	13 min, 40 sec	-1 min, 25 sec
	Bridgeport Village	Tualatin High School	11 min, 20 sec	-50 sec
SW Boones Ferry Road	Tualatin High School	Nyberg Interchange	10 min	+20sec
	Nyberg Interchange	Tualatin High School	8 min, 25 sec	+15 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	12 min, 20 sec	-40 sec
	Bridgeport Village	115th Avenue	11 min, 25 sec	-15 sec
SW Tualatin Road	115th Avenue	Nyberg Interchange	11 min, 10 sec	+35 sec
	Nyberg Interchange	115th Avenue	11 min	+35 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	16 min	-1 min
	Bridgeport Village	Cipole Road	16 min 25 sec	-55 sec
SW Tualatin-Sherwood Road	Cipole Road	Nyberg Interchange	12 min	+25 sec
	Nyberg Interchange	Cipole Road	12 min, 25 sec	+40 sec
SW Borland Road/65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	No difference
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
SW Borland Road/65 th Ave	Bridgeport Elementary	Bridgeport Village	10 min, 40 sec	-2 min, 15 sec
	Bridgeport Village	Bridgeport Elementary	12 min, 10 sec	-2 min, 15 sec

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

NOTE: All travel times have been rounded to the nearest 5 seconds

Travel times would decrease under this scenario by approximately 1 minute among various destination pairs. This difference is most notable for travel times extending through Tualatin either north-south or east-west. This is due to the fact that the main east-west pairing would actually extend northward along Boones Ferry Road and would benefit from the lower traffic volumes on Boones Ferry Road. In addition, however, travel times between Bridgeport Elementary School near Borland Road and 65th Avenue and Bridgeport Village would decrease by more than 2 minutes in both directions (northbound and southbound).

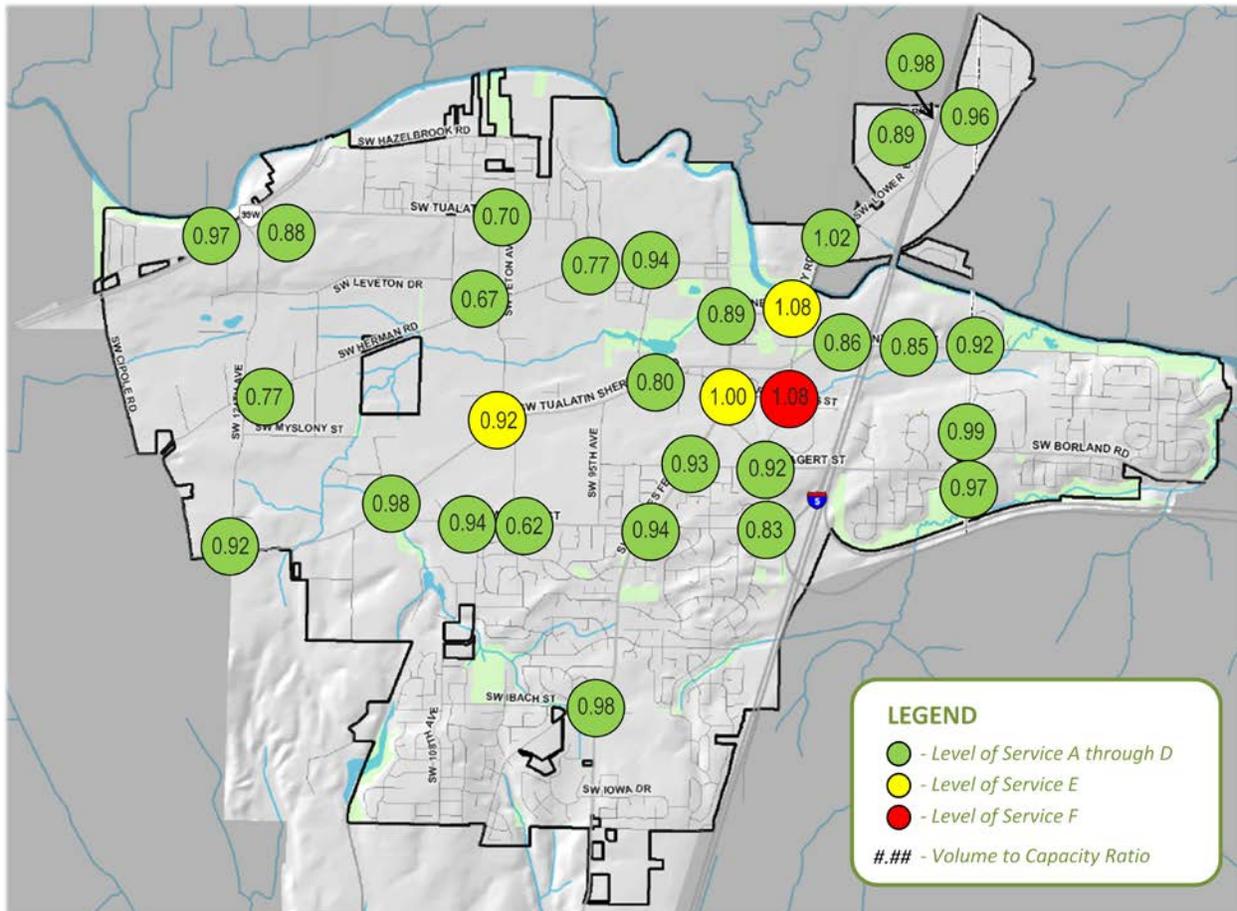
Scenario 5: Future “Low Build” with Boones Ferry Road Widening

Traffic Operations

Scenario 5 is the future “low build” (Scenario 3) with the widening of Boones Ferry Road to five lanes north of Martinazzi Avenue. Under this scenario, the cross section of 65th Avenue would remain three lanes between Nyberg Road and Sagert Street and not be extended north over the Tualatin River. Boones Ferry Road would be widened to a five lane section between Martinazzi at the south and Lower Boones Ferry Road at the north, replacing the existing two lane structure over the Tualatin River with a four lane structure.

Raw outputs from the traffic model Synchro (as shown in Appendix A) indicate that up to 12 study intersections would have a v/c higher than 1.0 and/or LOS of F. However, when optimized to improve performance, traffic operations would improve so that 4 intersections operate at a v/c at or above 1.0. As shown in Figure 5, these are: Boones Ferry Road/Tualatin-Sherwood Road, Martinazzi Avenue/Boones Ferry Road, and Boones Ferry Road/Lower Boones Ferry Road. In this scenario, Boones Ferry Road/Lower Boones Ferry Road improves slightly but not sufficiently by itself to meet ODOT standards. In addition, conditions worsen at the intersection of Martinazzi/Boones Ferry Road as this intersection represents where the cross section tapers back to its original three lane section through the heart of downtown Tualatin. Additional volumes cause congestion at this intersection.

Figure 5. Intersection Operations, Future “Low Build” with Boones Ferry Road Widening



Another observation is that traffic diverts in this scenario from Tualatin-Sherwood Road to Sagert Street, as it becomes quicker to stay on Boones Ferry Road. This worsens conditions slightly along Sagert Street, as seen at both the Boones Ferry Road and 65th Avenue intersections. However, conditions improve slightly along Tualatin-Sherwood Road between Boones Ferry Road and 65th Avenue.

Traffic Volume Shifts

Widening this segment of Boones Ferry Road diverts trips from I-5 to Boones Ferry Road between the Lower Boones Ferry Road and Tualatin-Sherwood Road interchanges. Shifts are moderate on Boones Ferry Road between Tualatin Road and Lower Boones Ferry Road, and minor north and south of these intersections.

Travel Times

Travel times for Scenario 5 are highlighted in Table 6 below.

TABLE 6
Future (2035) “Low Build” with Boones Ferry Road Widening P.M. Peak Period (4:00 P.M. to 6:00 P.M.) Travel Time Data

Corridor	From	To	Average Travel Times	Difference from Future No Build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	13 min, 40 sec	-1 min, 25 sec
	Bridgeport Village	Tualatin HS	11 min, 30 sec	-40 sec
SW Boones Ferry Road	Tualatin High School	Nyberg Interchange	9 min, 40 sec	No difference
	Nyberg Interchange	Tualatin HS	8 min, 10 sec	No difference
SW Tualatin Road	115th Avenue	Bridgeport Village	12 min, 30 sec	-30 sec
	Bridgeport Village	115th Avenue	11 min, 20 sec	-20 sec
SW Tualatin Road	115th Avenue	Nyberg Interchange	10 min, 55 sec	+20 sec
	Nyberg Interchange	115th Avenue	10 min, 40 sec	+15 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	15 min, 50 sec	-1 min, 10 sec
	Bridgeport Village	Cipole Road	16 min, 40 sec	-40 sec
SW Tualatin-Sherwood Road	Cipole Road	Nyberg Interchange	11 min, 35 sec	No difference
	Nyberg Interchange	Cipole Road	12 minutes	+10 sec
SW Borland Road / 65 th Avenue	Bridgeport Elementary	Nyberg Interchange	3 min, 25 sec	+5 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
SW Borland Road / 65 th Avenue	Bridgeport Elementary	Bridgeport Village	12 min, 10 sec	-45 sec
	Bridgeport Village	Bridgeport Elementary	13 min, 40 sec	-45 sec

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

NOTE: All travel times are rounded to the nearest 5 seconds

The travel time savings associated with this scenario are similar to what is seen under Scenario 4 (“low build” with 65th Avenue extension), with the notable exception of travel times between Bridgeport Elementary School in the vicinity of 65th Avenue / Borland Road and Bridgeport Village. Scenario 4 sees a travel time savings of over 2 minutes due to the extension of 65th Avenue whereas Scenario 5 sees a 45 second travel time increase. Other destination pairings, such as Tualatin High School/ Bridgeport Village, and Cipole Road/Bridgeport Village, see over a 1 minute travel time savings due to the widening of Boones Ferry Road.

Scenario 6: Future “Low Build” with 65th Avenue Extension and Boones Ferry Road Widening

Traffic Operations

Scenario 6 illustrates traffic operations when both Boones Ferry Road is widened north of Martinazzi Avenue and when 65th Avenue is extended northward over the Tualatin River. Raw outputs from the Synchro model show that up to nine intersections operate at a v/c of 1.0 or an LOS of F. However, by implementing such mitigations as signal timing modifications, restriping, and turn pockets at intersections, operations can be improved so that only two intersections (Martinazzi/Tualatin-Sherwood Road and Martinazzi/Boones Ferry Road) would continue to operate within failing conditions. In addition, operations would be much improved at several intersections under this scenario, as shown in the table below.

Although the operations improvements at the intersection of Boones Ferry Road and Tualatin-Sherwood Road would be slight, they would bring the intersection within the 0.99 v/c threshold and are thus reported here. Under this scenario, there would be substantial improvements at the intersection of Boones Ferry Road and Lower Boones Ferry Road and at the intersection of I-5 and Lower Boones Ferry Road, with better mobility from a combination of additional capacity along Boones Ferry Road and an alternate route east of I-5.

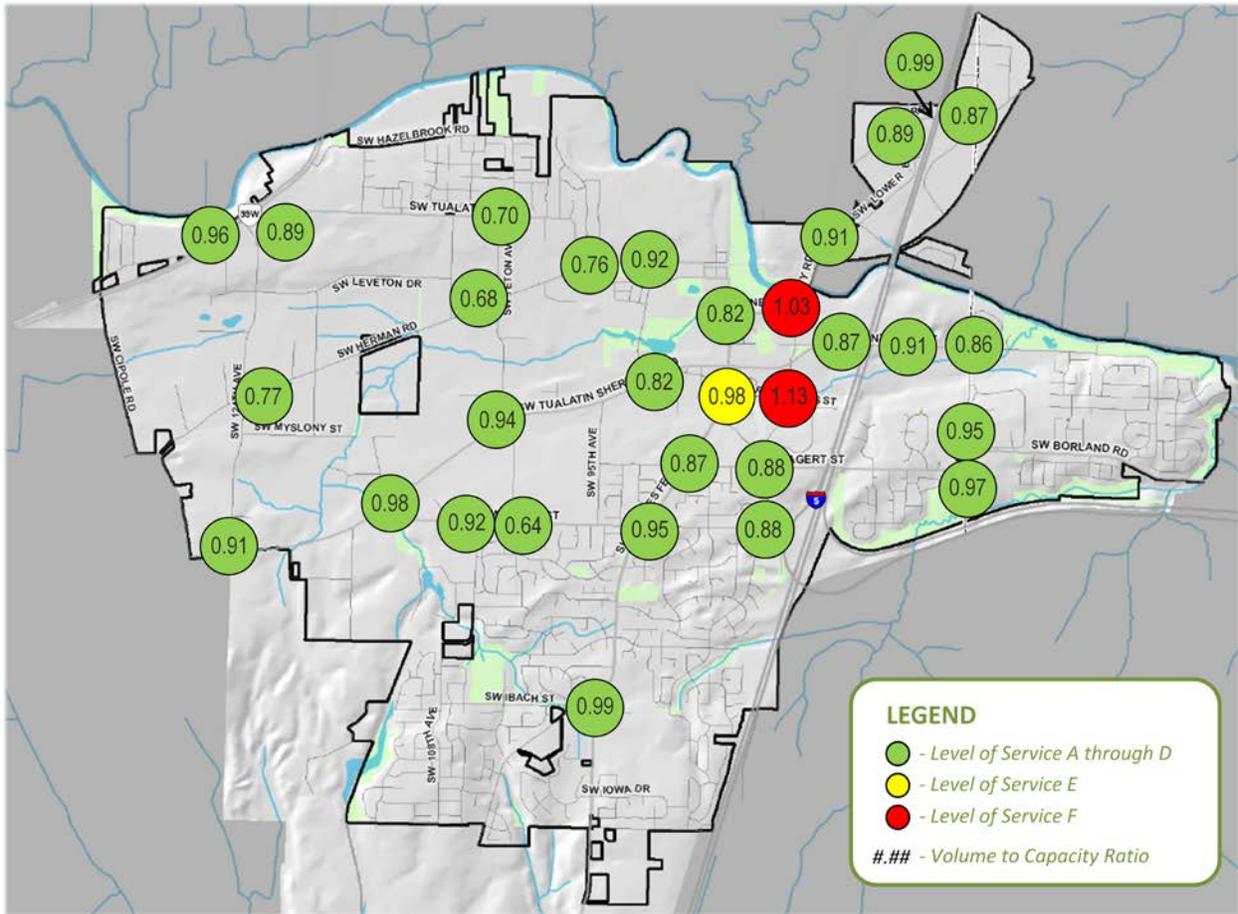
TABLE 7
 Future (2035) Operational Analysis Comparison between Scenario 3 and Scenario 6

	Scenario 3 ("Low Build")		Scenario 6 ("Low Build" with 65 th Extension and Boones Ferry Road Widening)	
	LOS	V/C	LOS	V/C
Boones Ferry/Tualatin-Sherwood Road	E	1.0	E	0.98
I-5 SB Ramps and Nyberg Road	D	0.91	C	0.87
Boones Ferry Road / Lower Boones Ferry Road	E	1.06	C	0.91
I-5 NB Ramps and Lower Boones Ferry Road	D	0.98	C	0.87
Martinazzi/Sagert	D	0.92	D	0.88
65 th /Nyberg	C	0.91	C	0.86

Traffic Volume Shifts

Traffic volumes shift to 65th Avenue under this scenario, though with fewer shifts than under Scenario 4. Moderate increases in traffic volumes would occur along 65th Avenue between Nyberg Street and Sagert Street and between Childs Road and Lakeview Boulevard. Minor increases would continue south of Sagert Street to Norwood Road, along Childs Road, along Sagert Street, and along Nyberg Road east of 65th Avenue. Traffic volumes would decrease along I-5 between the Lower Boones Ferry Road and Nyberg Road interchanges, which indicates that some drivers would take I-5 for short, local trips in this location. Unlike Scenario 4, minor increases would occur on Boones Ferry Road between Lower Boones Ferry Road and Sagert Street, due to the extra capacity along that corridor.

Figure 6. Intersection Operations, Future (2035) “Low Build” with 65th Avenue Extension and Boones Ferry Road Widening



Travel Times

Travel times are summarized in Table 8 below for the future (Year 2035) “low build” scenario with an extension of 65th Avenue over the Tualatin River and a widening of Boones Ferry Road north of Martinazzi.

TABLE 8
 Future (2035) “Low Build” with 65th Avenue Extension and Boones Ferry Road Widening P.M. Peak Period
 (4:00 P.M. to 6:00 P.M.) Travel Time Data

Corridor	From	To	Average Travel Times	Difference from Future No Build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	12 min, 35 sec	-2 min, 30 sec
	Bridgeport Village	Tualatin High School	10 min, 35 sec	-1 min, 35 sec
SW Boones Ferry Road	Tualatin High School	Nyberg Interchange	9 min, 50 sec	+10 sec
	Nyberg Interchange	Tualatin High School	8 min, 25 sec	+15 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	11 min, 30 sec	-1 min, 30 sec
	Bridgeport Village	115th Avenue	10 min, 55 sec	-45 sec
SW Tualatin Road	115th Avenue	Nyberg Interchange	11 minutes	+25 sec
	Nyberg Interchange	115th Avenue	10 min, 55 sec	+30 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	14 min, 55 sec	-2 min, 5 sec
	Bridgeport Village	Cipole Road	15 min, 40 sec	-1 min, 40 sec
SW Tualatin-Sherwood Road	Cipole Road	Nyberg Interchange	11 min, 50 sec	+15 sec
	Nyberg Interchange	Cipole Road	12 min, 20 sec	+30 sec
SW Borland Road / 65 th	Bridgeport Elementary	Nyberg Interchange	3 min, 30 sec	+10 sec

TABLE 8

Future (2035) "Low Build" with 65th Avenue Extension and Boones Ferry Road Widening P.M. Peak Period (4:00 P.M. to 6:00 P.M.) Travel Time Data

Corridor	From	To	Average Travel Times	Difference from Future No Build
Avenue	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
SW Borland Road / 65 th Avenue	Bridgeport Elementary	Bridgeport Village	10 min, 25 sec	-2 min, 30 sec
	Bridgeport Village	Bridgeport Elementary	11 min, 50 sec	-2 min, 35 sec

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

NOTE: All travel times are rounded to the nearest 5 seconds

Travel time decreases under this scenario would be dramatic for some destination pairings. Between Tualatin High School and Bridgeport Village and between Bridgeport Elementary School and Bridgeport Village, for example, there are travel time savings of greater than 2 minutes. For traffic to and from the west (Tualatin Road, Cipole Road, 115th Avenue), there would be a travel time savings greater than a minute.

Conclusions

Looking at the six scenarios as a whole, we see that Tualatin is somewhat congested now, and becomes very congested in the future. The main roadways of Tualatin-Sherwood Road, Boones Ferry Road, 65th Avenue, Teton Avenue, and SW Avery Street bear the burden of this congestion, as observed in both intersection operations and travel times. In some locations, it is expected to take 6 minutes longer to travel across town than it does today.

The "low build" scenario does a fair job of mitigating intersection level problems. Adding signals, restriping lanes, and adding turn pockets by themselves can move cars more quickly through any given intersection but travel times show that conditions on the roadway sections between intersections remain congested. "Low build" travel times are no different than those seen under future no build.

Scenario 4, which combines the "low build" projects with the 65th Avenue extension, improves both intersection conditions and travel times. Travel time savings are seen for cross-town trips in both the north/south and east/west direction, but are most dramatic in the vicinity of 65th Avenue (between Bridgeport Elementary School and Bridgeport Village), where travel time reductions are in excess of two minutes.

Scenario 5, which combines the "low build" with widening Boones Ferry Road north of Martinazzi, displays similar travel time benefits to Scenario 4 except for this last pairing, which is purely a benefit of the 65th Avenue extension. Scenario 5 maintains much of the intersection level operations as under the "low build" and improves conditions at the Boones Ferry Road/Lower Boones Ferry Road intersection through additional capacity. Conditions at the Boones Ferry Road/Martinazzi Avenue intersection are worsened because this is the location that the roadway transitions back to its existing three lane section.

Scenario 6 intersection operations show that more traffic flows along Boones Ferry Road, but that capacity projects at Boones Ferry Road / Lower Boones Ferry Road accommodate some of this traffic. Operations from Scenario 6 are improved along sections of Tualatin-Sherwood Road, Boones Ferry Road, and along 65th Avenue. Of concern for Scenario 6 are the two Martinazzi intersections (Boones Ferry Road and Tualatin-Sherwood Road) which experience worsened traffic congestion in the afternoon rush hour. When intersection conditions are considered in combination with travel time savings, Scenario 6 benefits Tualatin more than any other scenario. Travel time savings in the north/south and east/west

directions are in excess of 2 minutes (Tualatin High School/Bridgeport Village, Cipole Road/Bridgeport Village, Bridgeport Elementary School/Bridgeport Village).

Next Steps

The Tualatin TSP is available in draft form as all project, program, and policy recommendations have been identified apart from the two river crossings described in this memorandum. At its next meeting, the Transportation Task Force will use the traffic analysis results to make a recommendation on which, if any, river crossing projects should be included in the TSP. This recommendation will then be taken into consideration by the Tualatin Planning Commission, Tualatin Parks Advisory Committee, and City Council as they begin deliberations on the TSP package as a whole.

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Appendix A: Traffic Operations and Travel Times Data

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APPENDIX A
PM Peak Hour Intersection Traffic Operations by Scenario (Without Intersection Mitigations)

Intersection	Jurisdiction	Minimum Standard	2011	2011	2035	2035	2035	2035	2035	2035	2035	2035	2035	
			LOS	V/C	No-Build LOS	No-Build V/C	Low-Build w/out 65 th LOS	Low-Build w/out 65 th V/C	Low-Build w/out 65 th & w/BFR widened LOS	Low-Build w/o 65 th & w/BFR widened V/C	Low-Build w/2-lane 65th LOS	Low-Build w/2-lane 65 th V/C	Low-Build with 2- lane 65 th & w/BFR widened LOS	Low-Build with 2- lane 65 th & w/BFR widened V/C
<i>Signalized</i>														
SW 124th Ave & Hwy 99W	ODOT	0.99	C	0.69	D	0.99	D	0.99	D	0.97	D	0.98	D	0.96
SW 124th Ave & SW Tualatin Rd	Tualatin	D	B	0.66	C	0.91	C	0.88	C	0.88	C	0.89	C	0.89
SW 124th Ave & SW Herman Rd	Tualatin	D	C	0.53	C	0.76	C	0.77	C	0.77	C	0.76	C	0.77
SW 124th Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	C	0.90	C	0.93	C	0.92	C	0.92	C	0.92	C	0.91
SW Avery St & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	B	0.71	D	0.97	D	0.98	D	0.98	D	0.98	D	0.98
SW Teton Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	D	0.79	E	1.05	E	1.05	E	1.05	E	1.07	E	1.06
SW 90th Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	C	0.60	C	0.80	C	0.80	C	0.80	D	0.81	D	0.82
SW Boones Ferry Rd & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	D	0.93	F	1.21	F	1.19	F	1.17	F	1.18	F	1.18
SW Martinazzi Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	D	0.94	F	1.18	F	1.17	F	1.15	F	1.23	F	1.19
I-5 SB Ramps & SW Nyberg Rd	ODOT	0.99	D	0.79	D	0.91	D	0.91	D	0.86	C	0.91	C	0.87
I-5 NB Ramps & SW Nyberg Rd	ODOT	0.99	B	0.68	C	0.84	C	0.84	C	0.85	C	0.92	C	0.91
SW 65th Ave & SW Borland Rd	Wash. Co.	0.99	D	0.93	F	1.47	F	1.47	F	1.47	F	1.54	F	1.52
SW Teton Ave & SW Herman Rd	Tualatin	D	C	0.65	B	0.61	C	0.67	C	0.67	C	0.68	C	0.68
SW Tualatin Rd & SW Herman Rd	Tualatin	D	B	0.59	B	0.77	B	0.74	B	0.77	B	0.74	B	0.76
SW 90th Ave & SW Tualatin Rd	Tualatin	D	B	0.75	D	0.98	C	0.94	C	0.94	C	0.92	C	0.92
SW Tualatin Rd & SW Boones Ferry Rd	Wash. Co.	0.99	B	0.62	C	0.87	C	0.84	C	0.89	C	0.79	C	0.82
SW Martinazzi Ave & SW Boones Ferry Rd	Wash. Co.	0.99	D	0.89	F	1.27	F	1.27	F	1.24	F	1.20	F	1.18
SW Boones Ferry Rd & SW Lower Boones Ferry Rd	ODOT	0.99	C	0.76	E	1.12	E	1.12	D	1.05	D	1.00	C	0.91
SW 72nd Ave & Lower Boones Ferry Rd & Bridgeport Rd	Wash. Co.	0.99	C	0.66	D	0.88	D	0.88	D	0.89	D	0.83	D	0.89
I-5 SB Ramps & SW Lower Boones Ferry Rd	ODOT	0.99	C	0.75	D	0.97	D	0.97	D	1.03	D	0.92	D	0.99
I-5 NB Ramps & SW Lower Boones Ferry Rd	ODOT	0.99	B	0.74	D	0.98	D	0.98	D	1.00	C	0.86	C	0.87
SW Boones Ferry Rd & SW Avery St	Wash. Co.	0.99	C	0.87	F	1.13	F	1.13	F	1.20	F	1.17	F	1.17
SW Boones Ferry Rd & SW Sagert St	Wash. Co.	0.99	C	0.75	E	1.11	E	1.11	F	1.13	E	1.09	E	1.07
SW Boones Ferry Rd & SW Ibach St	Wash. Co.	0.99	B	0.70	D	0.98	D	0.98	D	0.98	D	0.99	D	0.99
SW 105th Ave & SW Avery St ²	Tualatin	E	C	0.28	C	0.94	C	0.94	C	0.94	C	0.92	C	0.92
SW Martinazzi Ave & SW Sagert St ³	Tualatin	E	F	0.95	D	0.92	D	0.92	D	0.93	D	0.87	D	0.88
SW 65 th Ave & SW Nyberg Rd	Wash. Co.	0.99	B	0.79	D	1.02	D	1.02	D	1.02	F	1.50	F	1.41

² Existing Conditions operations evaluated with minor street stop control.

³ Existing Conditions operations evaluated with minor street stop control. HCM Methodology does not account for a three-lane approach for an all way stop (as exists for the southbound approach.) To estimate LOS and V/C for the intersection the three lanes (one dedicated to each movement) are combined into two: through-right and through-left lanes. Because of this approximation, actual performance may be slightly better than reported above.

APPENDIX A
PM Peak Hour Intersection Traffic Operations by Scenario (Without Intersection Mitigations)

Intersection	Jurisdiction	Minimum Standard	2011	2011	2035	2035	2035	2035	2035	2035	2035	2035	2035	2035
			LOS	V/C	No-Build LOS	No-Build V/C	Low-Build w/out 65 th LOS	Low-Build w/out 65 th V/C	Low-Build w/out 65 th & w/BFR widened LOS	Low-Build w/o 65 th & w/BFR widened V/C	Low-Build w/2-lane 65th LOS	Low-Build w/2-lane 65 th V/C	Low-Build with 2-lane 65 th & w/BFR widened LOS	Low-Build with 2-lane 65 th & w/BFR widened V/C
<i>All-way Stop-control</i>														
SW Martinazzi Ave & SW Avery St*	Tualatin	E	B	0.55	D	0.85	D	0.85	D	0.83	D	0.86	D	0.88
SW Teton Ave & SW Avery St*	Tualatin	E	C	0.40	F	0.77	F	0.77	F	0.77	F	0.76	F	0.76
SW 65th Ave & SW Sagert St*⁴	Wash. Co.	0.99	F	0.98	F	1.72	F	1.72	F	1.72	F	1.87	F	1.87
<i>Minor Street Stop-control*</i>														
SW Teton Ave & SW Tualatin Rd	Tualatin	E	F	0.98	F	1.42	B**	0.70**	B**	0.70**	B**	0.70**	B**	0.70**

SOURCE: Consultant Team

*LOS and V/C reported for highest delay movement.

**Evaluated as a traffic signal. Assumes construction of traffic signal.

BOLD and highlighted dark grey text indicates meet minimum performance standard is not met

⁴ HCM Methodology does not account for a three-lane approach for an all way stop (as exists for the southbound approach.) To estimate LOS and V/C for the intersection the dedicated southbound left turn lane and through lane are combined, due to the relatively small volume on the left turn movement. Because of this approximation, actual performance may be slightly better than reported above.

APPENDIX A
PM Peak Hour Intersection Traffic Operations by Scenario (With Mitigations)

Intersection	Jurisdiction	Minimum Standard	2011	2011	2035	2035	2035	2035	2035	2035	2035	2035	2035	2035	Mitigation (identified for Low-Build Scenario w/65 th Avenue, unless noted otherwise)
			LOS	V/C	No-Build LOS	No-Build V/C	Low-Build LOS	Low-Build V/C	Low-Build w/BFR widen LOS	Low-Build w/BFR widened V/C	Low-Build (w/2-lane 65 th) LOS	Low-Build (w/2-lane 65 th) V/C	Low-Build 2-lane 65 th & w/BFR widen LOS	Low-Build 2-lane 65 th & w/BFR widened V/C	
<i>Signalized</i>															
SW 124th Ave & Hwy 99W	ODOT	0.99	C	0.69	D	0.99	D	0.99	D	0.97	D	0.98	D	0.96	
SW 124th Ave & SW Tualatin Rd	Tualatin	D	B	0.66	C	0.91	C	0.88	C	0.88	C	0.89	C	0.89	
SW 124th Ave & SW Herman Rd	Tualatin	D	C	0.53	C	0.76	C	0.77	C	0.77	C	0.76	C	0.77	
SW 124th Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	C	0.90	C	0.93	C	0.92	C	0.92	C	0.92	C	0.91	
SW Avery St & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	B	0.71	D	0.97	D	0.98	D	0.98	D	0.98	D	0.98	
SW Teton Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	D	0.79	E	0.92	E	0.92	E	0.92	D	0.94	D	0.94	Signal Adjustments (Timing and Phasing)
SW 90th Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	C	0.60	C	0.80	C	0.80	C	0.80	D	0.81	D	0.82	
SW Boones Ferry Rd & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	D	0.93	E	1.02	E	1.00	E	1.00	E	0.96	E	0.98	EBR, WBR, SBL pockets & Signal Adjustments
SW Martinazzi Ave & SW Tualatin-Sherwood Rd	Wash. Co.	0.99	D	0.94	E	1.11	F	1.10	F	1.08	E	1.10	F	1.13	EBT, NBR pocket, WBR prohibited & Signal Adjustments
I-5 SB Ramps & SW Nyberg Rd	ODOT	0.99	D	0.79	D	0.91	D	0.91	D	0.86	C	0.91	C	0.87	
I-5 NB Ramps & SW Nyberg Rd	ODOT	0.99	B	0.68	C	0.84	C	0.84	C	0.85	C	0.92	C	0.91	
SW 65th Ave & SW Borland Rd	Wash. Co.	0.99	D	0.93	D	0.96	D	0.96	D	0.99	C	0.91	D	0.95	NBR, WBL pocket & Signal Adjustments. Alternative access for EB approach (closed)
SW Teton Ave & SW Herman Rd	Tualatin	D	C	0.65	B	0.61	C	0.67	C	0.67	C	0.68	C	0.68	
SW Tualatin Rd & SW Herman Rd	Tualatin	D	B	0.59	B	0.77	B	0.74	B	0.77	B	0.74	B	0.76	
SW 90th Ave & SW Tualatin Rd	Tualatin	D	B	0.75	D	0.98	C	0.94	C	0.94	C	0.92	C	0.92	
SW Tualatin Rd & SW Boones Ferry Rd	Wash. Co.	0.99	B	0.62	C	0.87	C	0.84	C	0.89	C	0.79	C	0.82	
SW Martinazzi Ave & SW Boones Ferry Rd	Wash. Co.	0.99	D	0.89	D	0.99	D	0.99	E	1.08	D	0.97	F	1.03	Widen BFR east to create 2 EB entry lanes. Alternative access for SB approach (closed.) Restripe lanes & Signal adjustments.
SW Boones Ferry Rd & SW Lower Boones Ferry Rd	ODOT	0.99	C	0.76	E	1.06	E	1.06	D	1.02	D	1.00	C	0.91	RIRO on EB approach including prohibiting NBL.
SW 72nd Ave & Lower Boones Ferry Rd & Bridgeport Rd	Wash. Co.	0.99	C	0.66	D	0.88	D	0.88	D	0.89	D	0.83	D	0.89	
I-5 SB Ramps & SW Lower Boones Ferry Rd	ODOT	0.99	C	0.75	D	0.97	D	0.97	D	0.98	D	0.92	D	0.99	
I-5 NB Ramps & SW Lower Boones Ferry Rd	ODOT	0.99	B	0.74	D	0.98	D	0.98	D	0.96	C	0.86	C	0.87	
SW Boones Ferry Rd & SW Avery St	Wash. Co.	0.99	C	0.87	D	0.94	D	0.94	D	0.94	D	0.95	D	0.95	EBR, SBR pockets & Signal Adjustments (Timing and Phasing)
SW Boones Ferry Rd & SW Sagert St	Wash. Co.	0.99	C	0.75	D	0.88	D	0.88	D	0.93	D	0.85	D	0.87	NBR pocket & Signal Adjustments (Timing and Phasing)
SW Boones Ferry Rd & SW Ibach St	Wash. Co.	0.99	B	0.70	D	0.98	D	0.98	D	0.98	D	0.99	D	0.99	
SW 105th Ave & SW Avery St ⁵	Tualatin	E	C	0.28	C	0.94	C	0.94	C	0.94	C	0.92	C	0.92	
SW Martinazzi Ave & SW Sagert St ⁶	Tualatin	E	F	0.95	D	0.92	D	0.92	D	0.92	D	0.87	D	0.88	

⁵ Existing Conditions operations evaluated with minor street stop control.

APPENDIX A
PM Peak Hour Intersection Traffic Operations by Scenario (With Mitigations)

Intersection	Jurisdiction	Minimum Standard	2011	2011	2035	2035	2035	2035	2035	2035	2035	2035	2035	2035	Mitigation (identified for Low-Build Scenario w/65 th Avenue, unless noted otherwise)
			LOS	V/C	No-Build LOS	No-Build V/C	Low-Build LOS	Low-Build V/C	Low-Build w/BFR widened LOS	Low-Build w/BFR widened V/C	Low-Build (w/2-lane 65 th) LOS	Low-Build (w/2-lane 65 th) V/C	Low-Build 2-lane 65 th & w/BFR widened LOS	Low-Build 2 lane 65 th & w/BFR widened V/C	
SW 65 th Ave & SW Nyberg Rd	Wash. Co	0.99	B	0.79	C	0.91	C	0.91	C	0.92	C	0.88	C	0.86	Signal timing adjustments.
<i>All-way Stop-control</i>															
SW Martinazzi Ave & SW Avery St*	Tualatin	E	B	0.55	D	0.85	D	0.85	D	0.83	D	0.86	D	0.88	
SW Teton Ave & SW Avery St*	Tualatin	E	C	0.40	F	0.77	B**	0.62**	B**	0.62**	B**	0.64**	B**	0.64**	Traffic Signal
SW 65th Ave & SW Sagert St* ⁷	Wash. Co.	0.99	F	0.98	D**	0.91**	D**	0.91**	D**	0.97**	D**	0.97**	D**	0.97**	Traffic Signal & Restripe (NBL, EBL). Alternate access for WB approach (closed)
<i>Minor Street Stop-control*</i>															
SW Teton Ave & SW Tualatin Rd	Tualatin	E	F	0.98	F	1.42	B**	0.70**	B**	0.70**	B**	0.70**	B**	0.70**	Traffic Signal (assumed in Low-Build)

SOURCE: Consultant Team

*LOS and V/C reported for highest delay movement.

**Evaluated as a traffic signal. Assumes construction of traffic signal.

BOLD and highlighted dark grey text indicates meet minimum performance standard is not met

⁶ Existing Conditions operations evaluated with minor street stop control. HCM Methodology does not account for a three-lane approach for an all way stop (as exists for the southbound approach.) To estimate LOS and V/C for the intersection the three lanes (one dedicated to each movement) are combined into two: through-right and through-left lanes. Because of this approximation, actual performance may be slightly better than reported above.

⁷ HCM Methodology does not account for a three-lane approach for an all way stop (as exists for the southbound approach.) To estimate LOS and V/C for the intersection the dedicated southbound left turn lane and through lane are combined, due to the relatively small volume on the left turn movement. Because of this approximation, actual performance may be slightly better than reported above.

2035 PM Peak Travel Time Comparison by Scenario (minutes)

Corridor	From	To	Existing (2011)	No-Build (2035)	Low-Build	Low-Build w/ Boones Ferry Rd. Widening	Low-Build w/ 65 th Extension	Low-Build w/65 th Extension & Boones Ferry Rd. Widening
SW Boones Ferry Road	Tualatin HS	Bridgeport Village	10.3	15.1	15.1	13.7	13.7	12.6
	Bridgeport Village	Tualatin HS	9.2	12.2	12.2	11.5	11.3	10.6
SW Boones Ferry Road	Tualatin HS	Nyberg Interchange	7.4	9.7	9.7	9.7	10.0	9.8
	Nyberg Interchange	Tualatin HS	7.1	8.2	8.2	8.2	8.4	8.4
SW Tualatin Road	115th Ave	Bridgeport Village	8.6	13.0	13.5	12.5	12.3	11.5
	Bridgeport Village	115th Ave	8.5	11.7	12.0	11.3	11.4	10.9
SW Tualatin Road	115th Ave	Nyberg Interchange	8.0	10.6	10.9	10.9	11.2	11.0
	Nyberg Interchange	115th Ave	8.7	10.4	10.8	10.7	11.0	10.9
SW Tualatin-Sherwood Road	Cipole Rd	Bridgeport Village	11.7	17.0	17.0	15.8	16.0	14.9
	Bridgeport Village	Cipole Rd	13.0	17.3	17.4	16.7	16.4	15.7
SW Tualatin-Sherwood Road	Cipole Rd	Nyberg Interchange	8.7	11.6	11.6	11.6	12.0	11.8
	Nyberg Interchange	Cipole Rd	10.1	11.8	12.0	12.0	12.4	12.3
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3.1	3.3	3.3	3.4	3.3	3.5
	Nyberg Interchange	Bridgeport Elementary	2.3	3.5	3.5	3.5	3.5	3.5
SW Borland Road / 65 th Ave	Bridgeport Elementary	Bridgeport Village	9.2	12.9	12.8	12.2	10.7	10.4
	Bridgeport Village	Bridgeport Elementary	8.4	14.4	14.4	13.7	12.2	11.8

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

2035 PM Peak Travel Time Comparison by Scenario (Percent Change Relative to No-Build Scenario)

Corridor	From	To	Low-Build	Low-Build w/ Boones Ferry Rd. Widening	Low-Build w/ 65 th Extension	Low-Build w/ 65 th Extension & w/ Boones Ferry Rd. Widening
SW Boones Ferry Road	Tualatin HS	Bridgeport Village	0%	-10%	-9%	-16%
	Bridgeport Village	Tualatin HS	0%	-5%	-8%	-13%
SW Boones Ferry Road	Tualatin HS	Nyberg Interchange	0%	0%	3%	1%
	Nyberg Interchange	Tualatin HS	0%	0%	3%	2%
SW Tualatin Road	115th Ave	Bridgeport Village	3%	-4%	-5%	-12%
	Bridgeport Village	115th Ave	2%	-3%	-3%	-7%
SW Tualatin Road	115th Ave	Nyberg Interchange	3%	3%	6%	4%
	Nyberg Interchange	115th Ave	4%	3%	6%	5%
SW Tualatin-Sherwood Road	Cipole Rd	Bridgeport Village	0%	-7%	-6%	-13%
	Bridgeport Village	Cipole Rd	1%	-4%	-5%	-9%
SW Tualatin-Sherwood Road	Cipole Rd	Nyberg Interchange	0%	0%	4%	2%
	Nyberg Interchange	Cipole Rd	2%	1%	4%	4%
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	0%	1%	0%	4%
	Nyberg Interchange	Bridgeport Elementary	0%	0%	1%	0%
SW Borland Road / 65 th Ave	Bridgeport Elementary	Bridgeport Village	0%	-5%	-16%	-19%
	Bridgeport Village	Bridgeport Elementary	0%	-5%	-15%	-18%

SOURCE: All Traffic Data, November 2011 (Existing), Metro Travel Demand Forecast Model (2035)

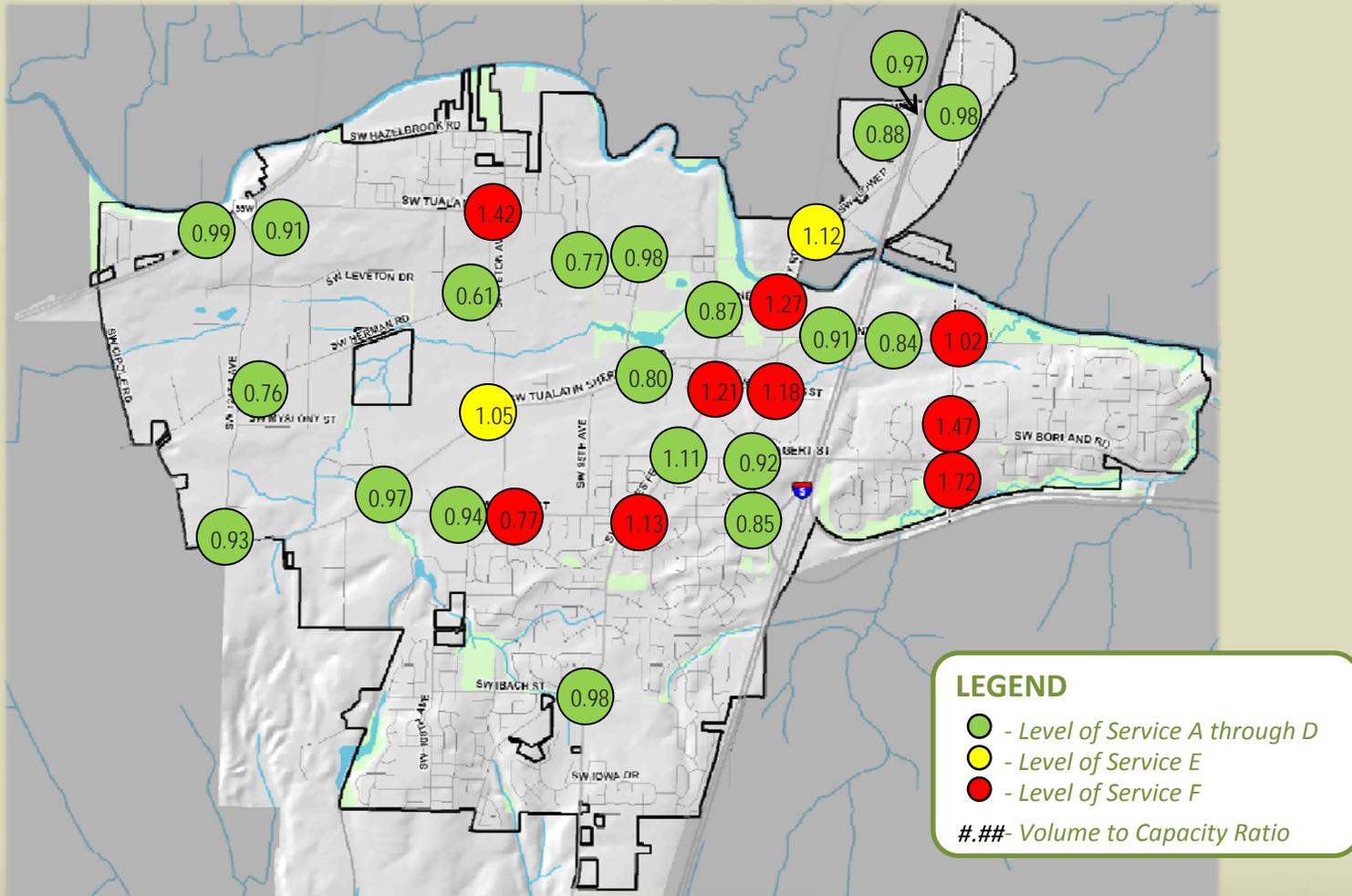


City of Tualatin
**Overview of
Traffic Analysis
Tualatin TSP**

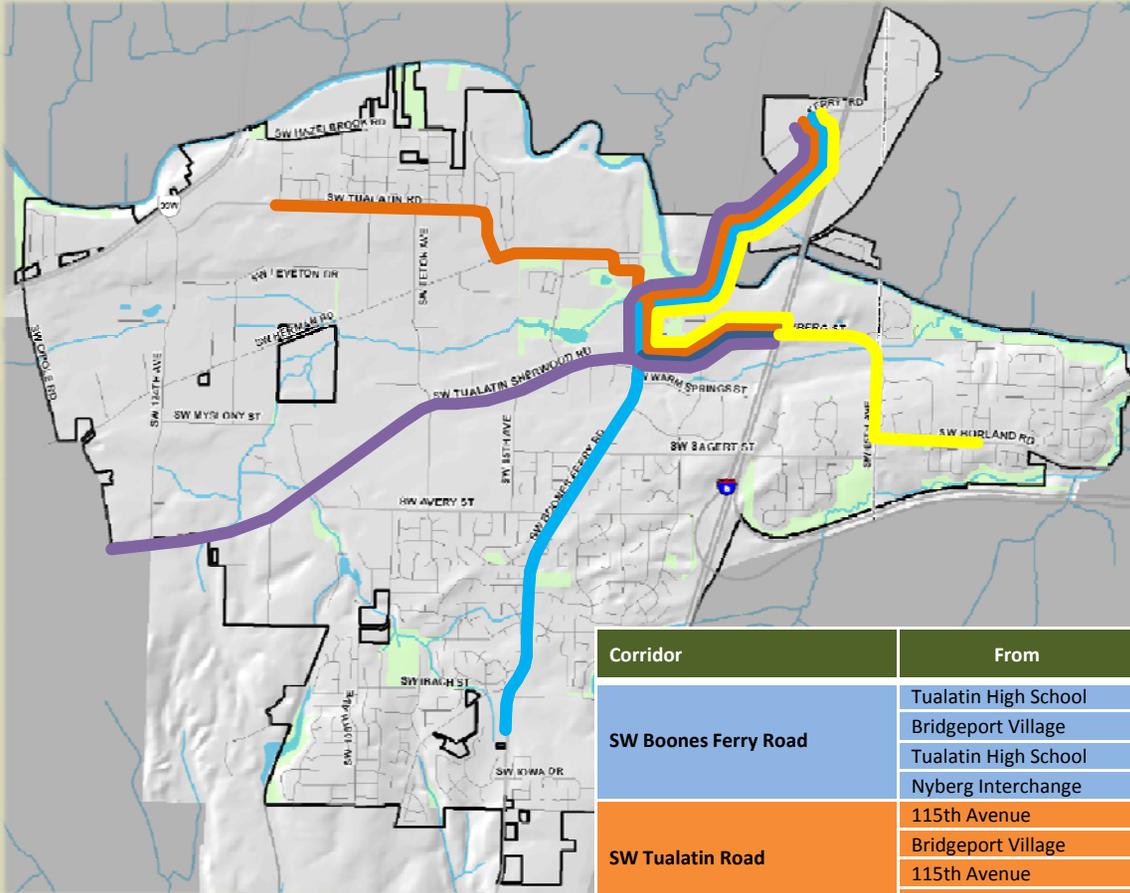
Presentation to
Tualatin Task Force
November 1, 2012



No-build Operations

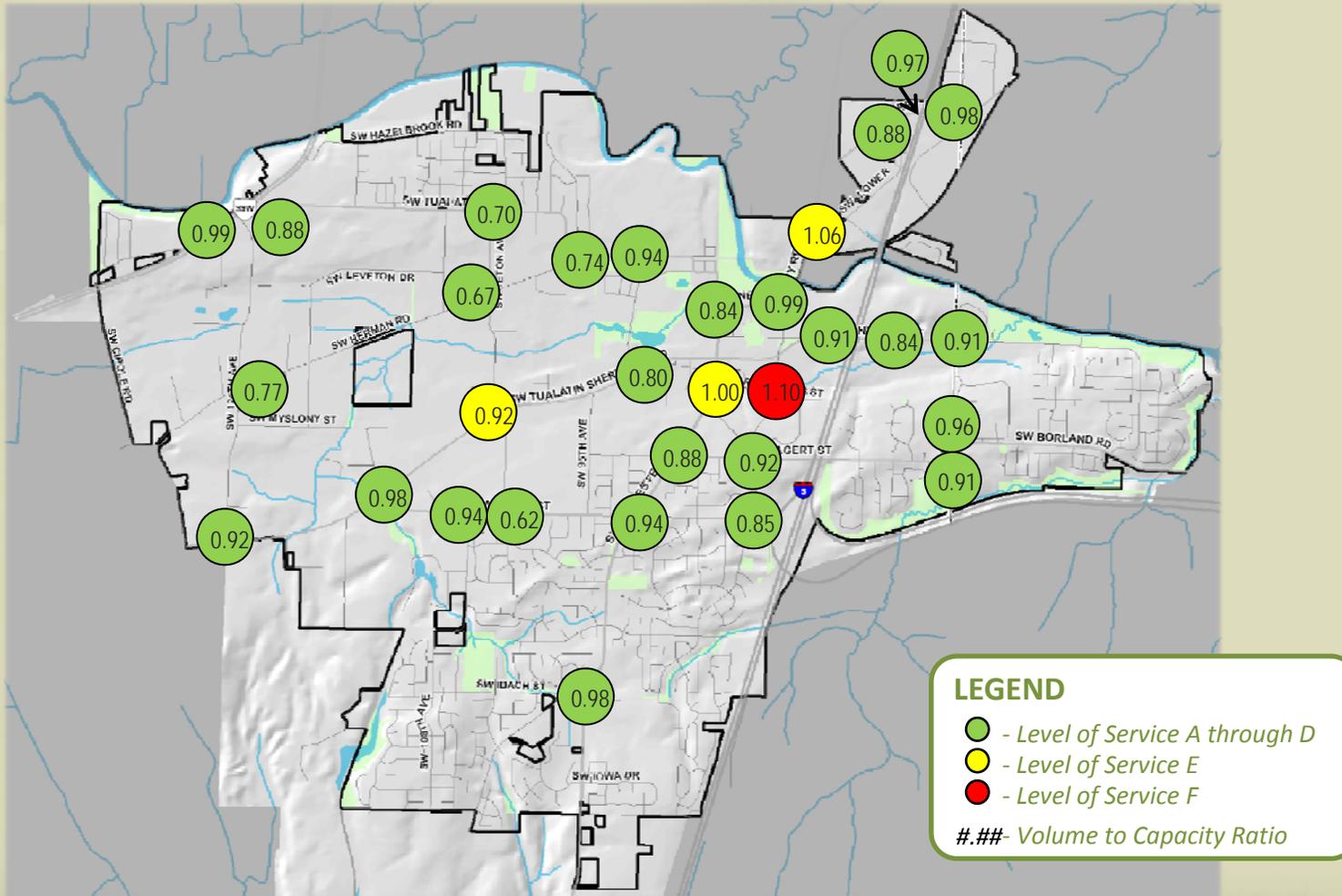


No-build Travel Times

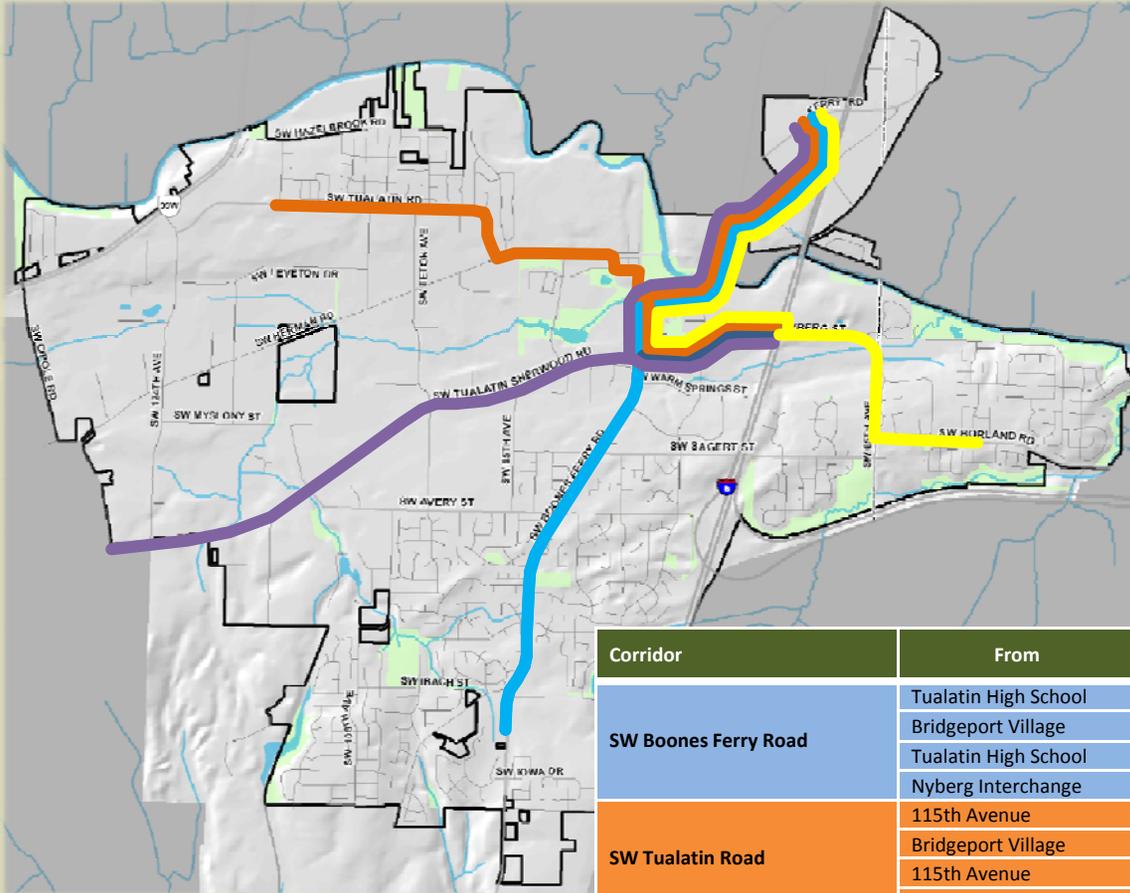


Corridor	From	To	Average Travel Time	Difference from Existing Conditions
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	15 min, 5 sec	+4 min, 45 sec
	Bridgeport Village	Tualatin High School	12 min, 10 sec	+3 min
	Tualatin High School	Nyberg Interchange	9 min, 40 sec	+2 min, 15 sec
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	+1 min, 5 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	13 minutes	+4 min, 25 sec
	Bridgeport Village	115th Avenue	11 min, 40 sec	+3 min, 10 sec
	115th Avenue	Nyberg Interchange	10 min, 35 sec	+2 min, 35 sec
	Nyberg Interchange	115th Avenue	10 min, 25 sec	+1 min, 45 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	17 minutes	+5 min, 20 sec
	Bridgeport Village	Cipole Road	17 min, 20 sec	+ 4min, 20 sec
	Cipole Road	Nyberg Interchange	11 minutes 35 sec	+2min, 55 sec
	Nyberg Interchange	Cipole Road	11 min, 50 sec	+1 min, 45 sec
SW Borland Road / 65th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	+15 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	+1 min, 10 sec
	Bridgeport Elementary	Bridgeport Village	12 min, 55 sec	+3 min, 45 sec
	Bridgeport Village	Bridgeport Elementary	14 min, 25 sec	+6 min

Low Build Operations

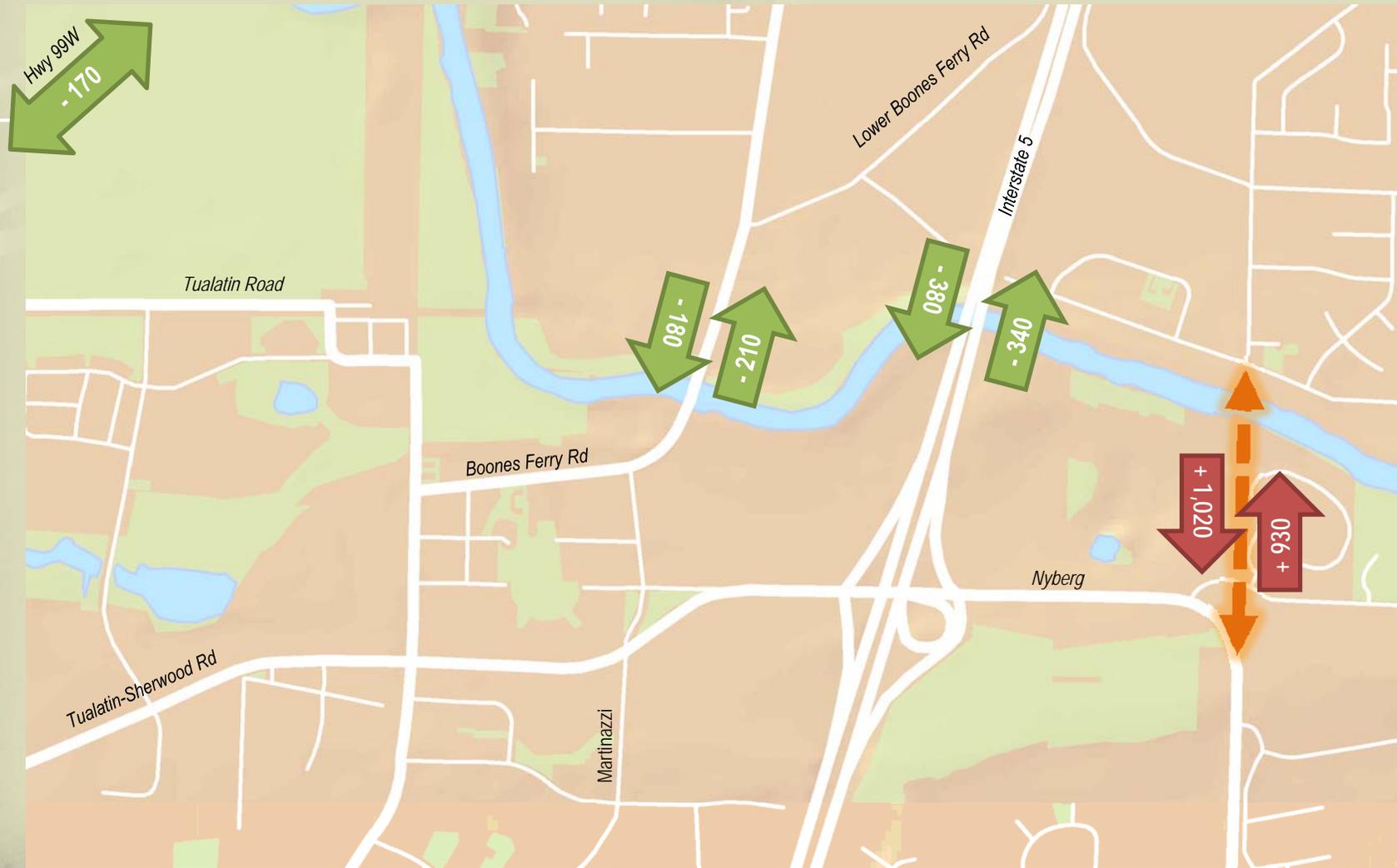


Low Build Travel Times

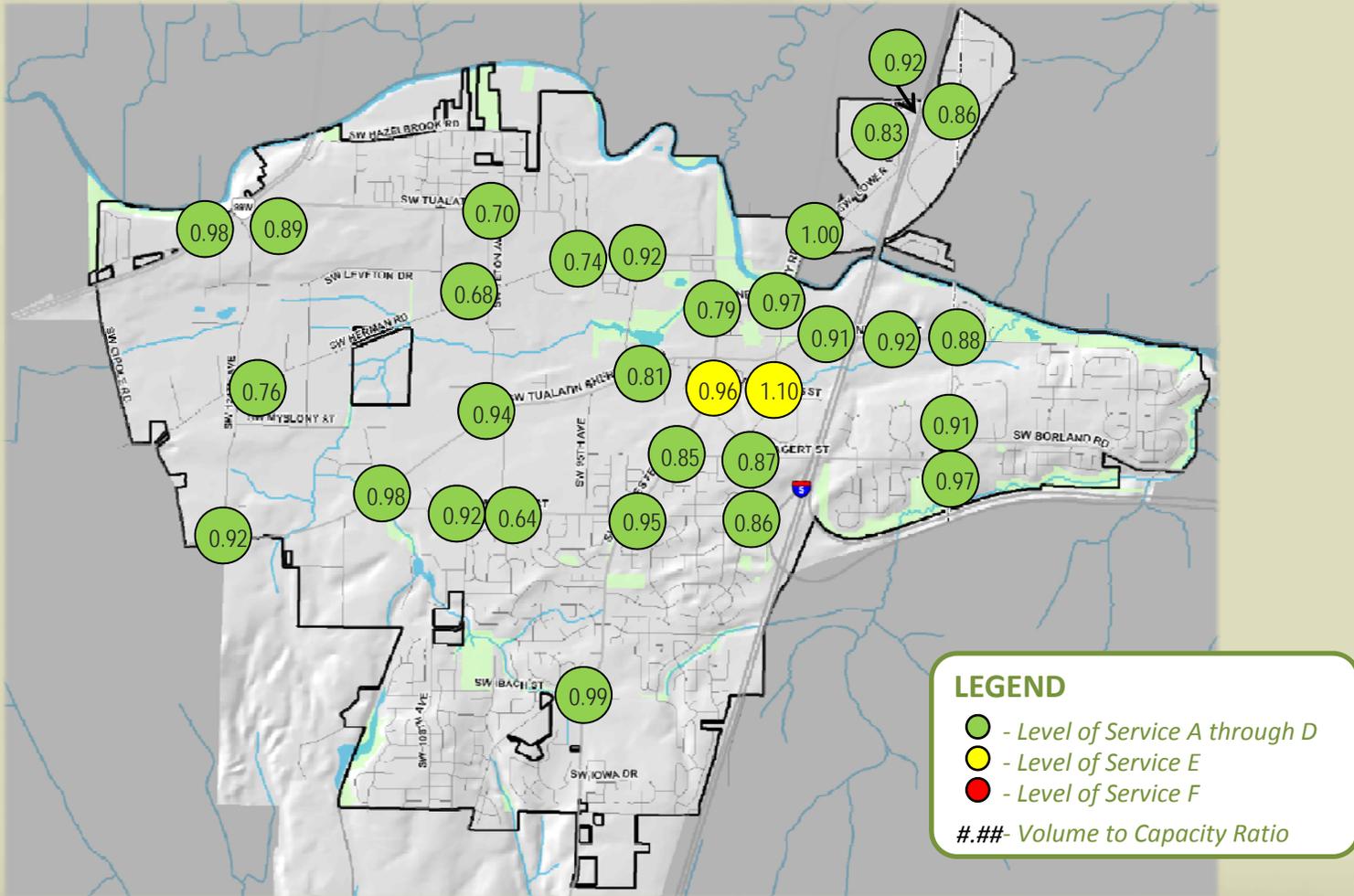


Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	15 min, 5 sec	No difference
	Bridgeport Village	Tualatin High School	12 min, 10 sec	No difference
	Tualatin High School	Nyberg Interchange	9 min, 40 sec	No difference
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	No difference
SW Tualatin Road	115th Avenue	Bridgeport Village	13 min, 30 sec	+30 sec
	Bridgeport Village	115th Avenue	12 minutes	+20 sec
	115th Avenue	Nyberg Interchange	10 min, 55 sec	+20 sec
	Nyberg Interchange	115th Avenue	10 min, 50 sec	+25 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	17 minutes	No difference
	Bridgeport Village	Cipole Road	17 min, 25 sec	+5 sec
	Cipole Road	Nyberg Interchange	11 min, 35 sec	No difference
	Nyberg Interchange	Cipole Road	12 minutes	+10 sec
SW Borland Road / 65th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	No difference
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	12 min, 50 sec	-5 sec
	Bridgeport Village	Bridgeport Elementary	14 min, 25 sec	No difference

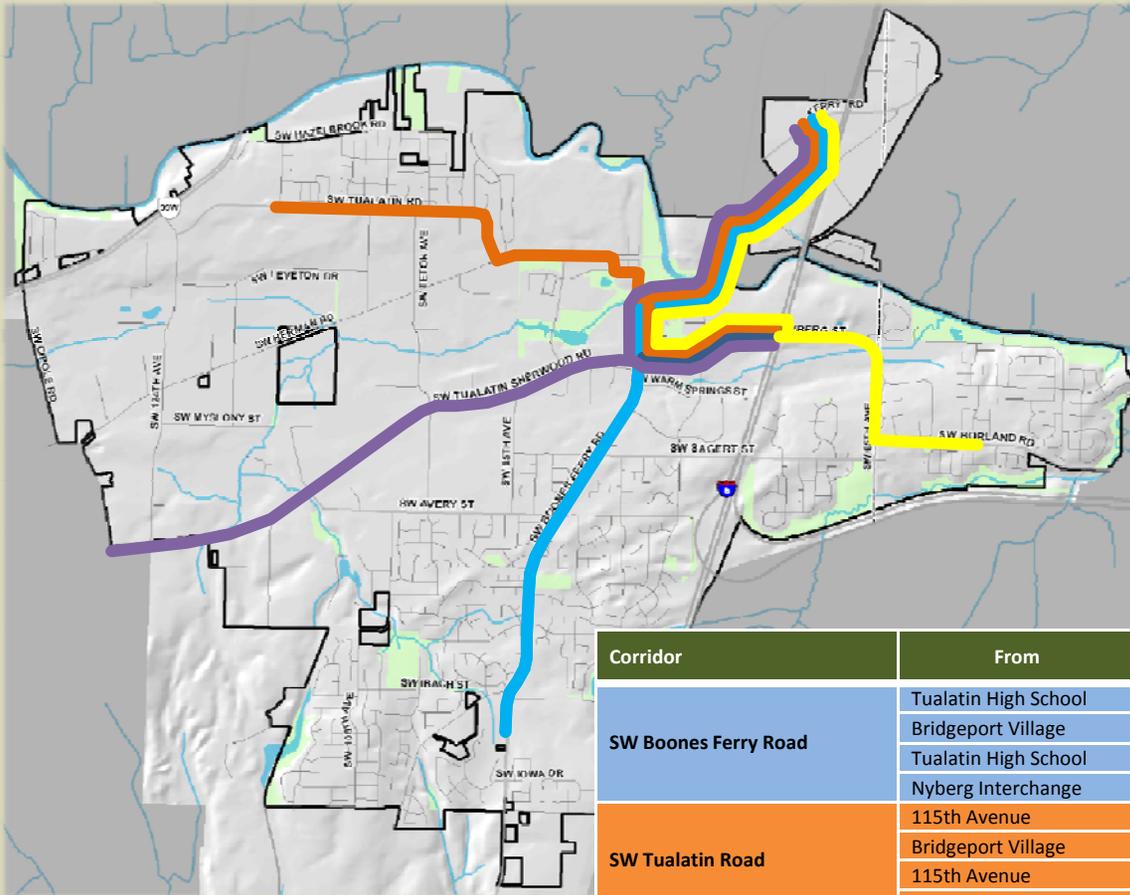
Low Build + 65th Ave Extension Volume Shifts



Low Build + 65th Ave Extension Operations

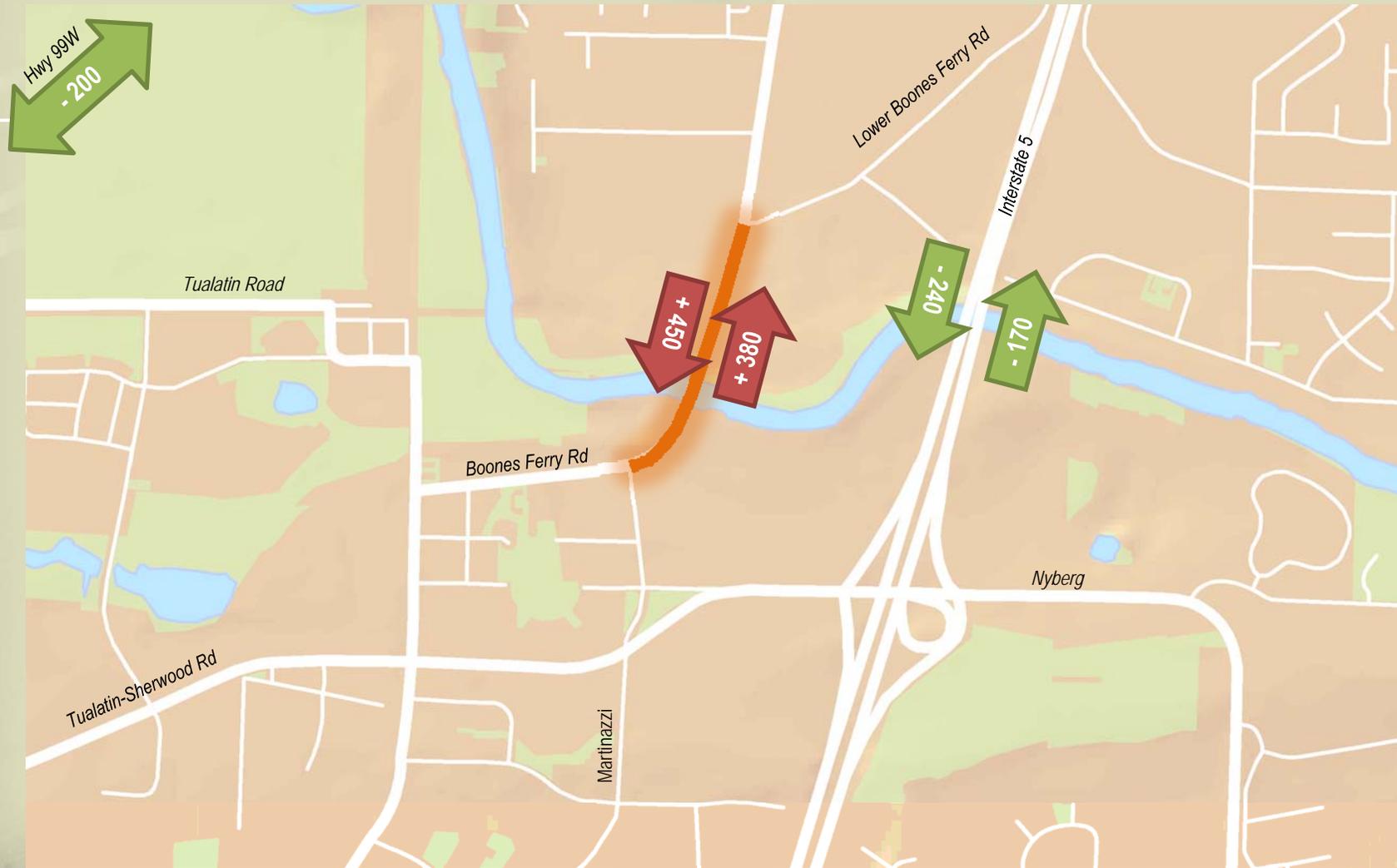


Low Build + 65th Ave Extension Travel Times

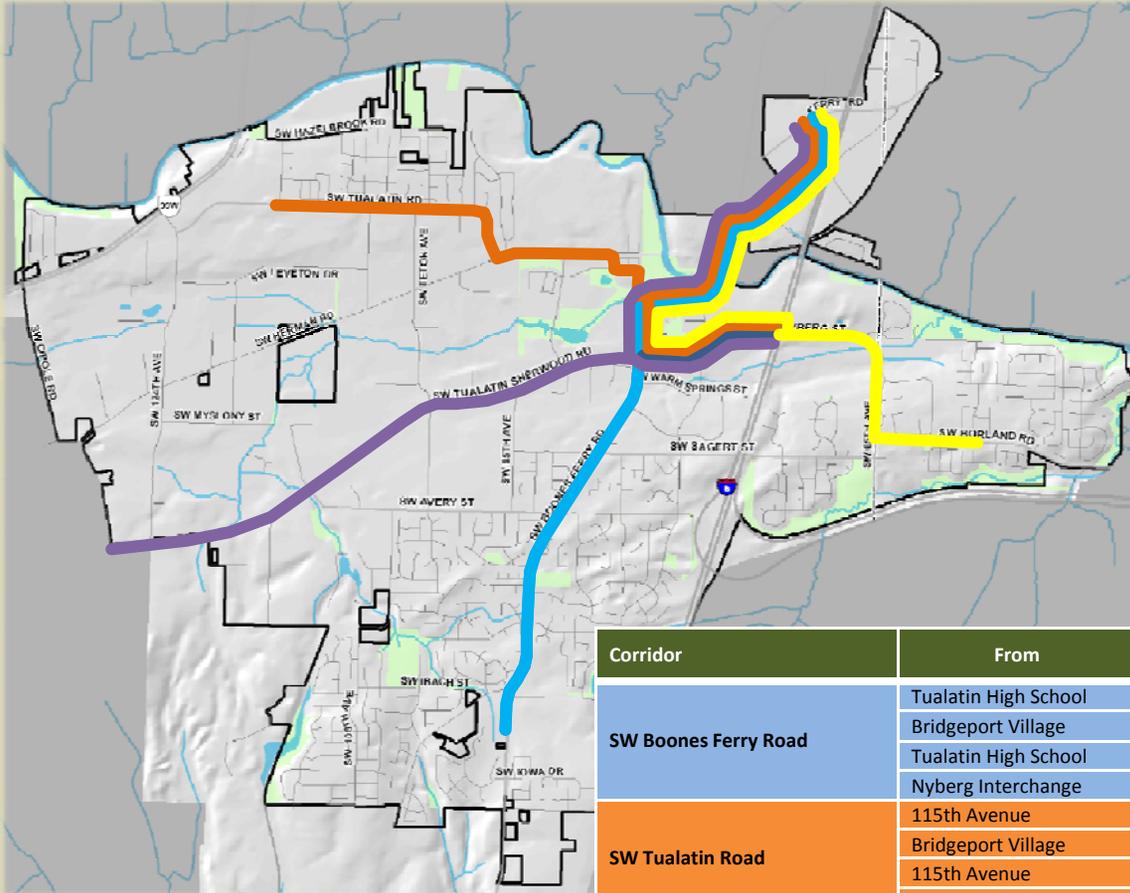


Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	13 min, 40 sec	-1 min, 25 sec
	Bridgeport Village	Tualatin High School	11 min, 20 sec	-50 sec
	Tualatin High School	Nyberg Interchange	10 min	+20sec
	Nyberg Interchange	Tualatin High School	8 min, 25 sec	+15 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	12 min, 20 sec	-40 sec
	Bridgeport Village	115th Avenue	11 min, 25 sec	-15 sec
	115th Avenue	Nyberg Interchange	11 min, 10 sec	+35 sec
	Nyberg Interchange	115th Avenue	11 min	+35 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	16 min	-1 min
	Bridgeport Village	Cipole Road	16 min 25 sec	-55 sec
	Cipole Road	Nyberg Interchange	12 min	+25 sec
	Nyberg Interchange	Cipole Road	12 min, 25 sec	+40 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	No difference
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	10 min, 40 sec	-2 min, 15 sec
	Bridgeport Village	Bridgeport Elementary	12 min, 10 sec	-2 min, 15 sec

Low Build + Boones Ferry Road Widening Volume Shifts

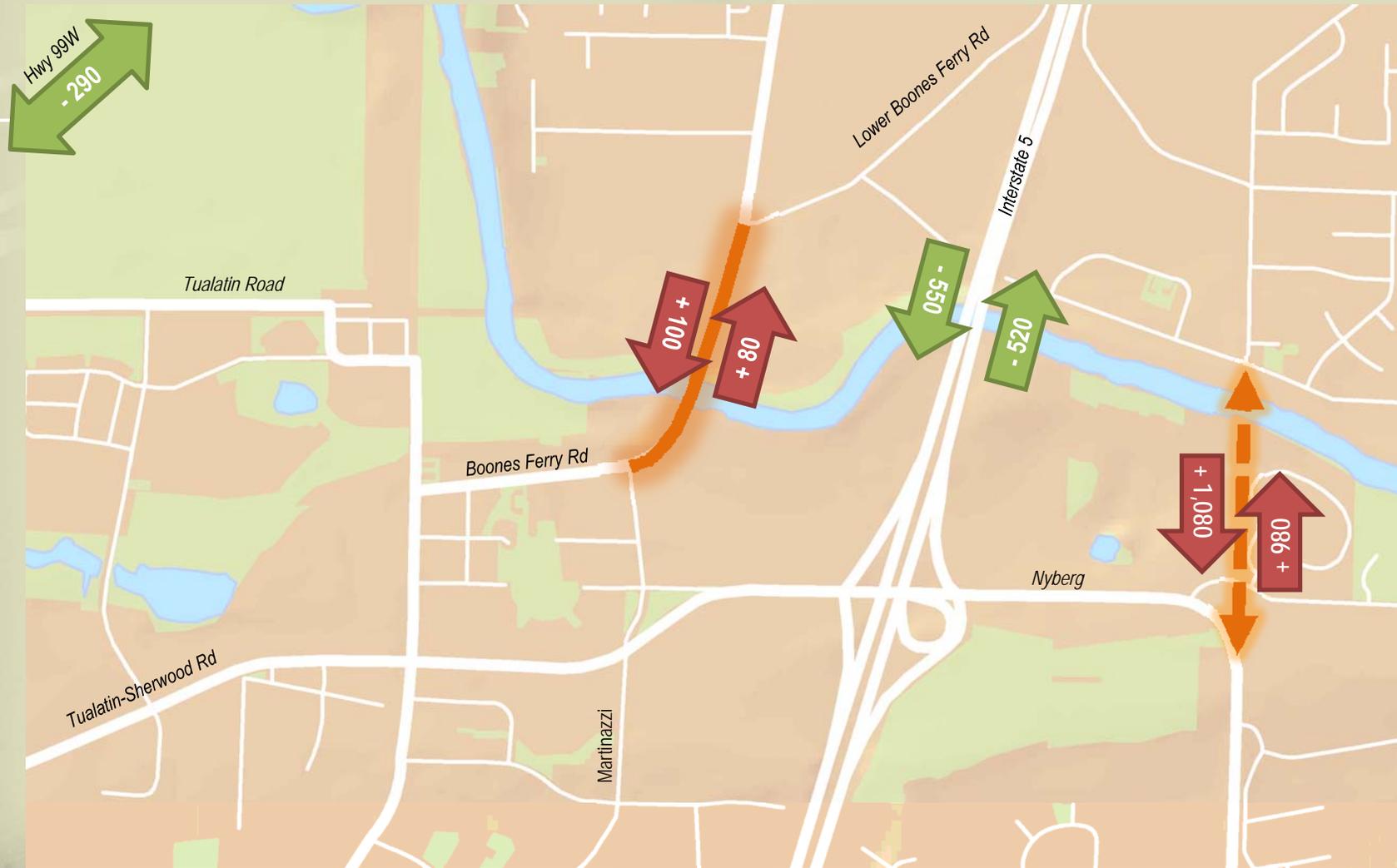


Low Build + Boones Ferry Road Widening Travel Times

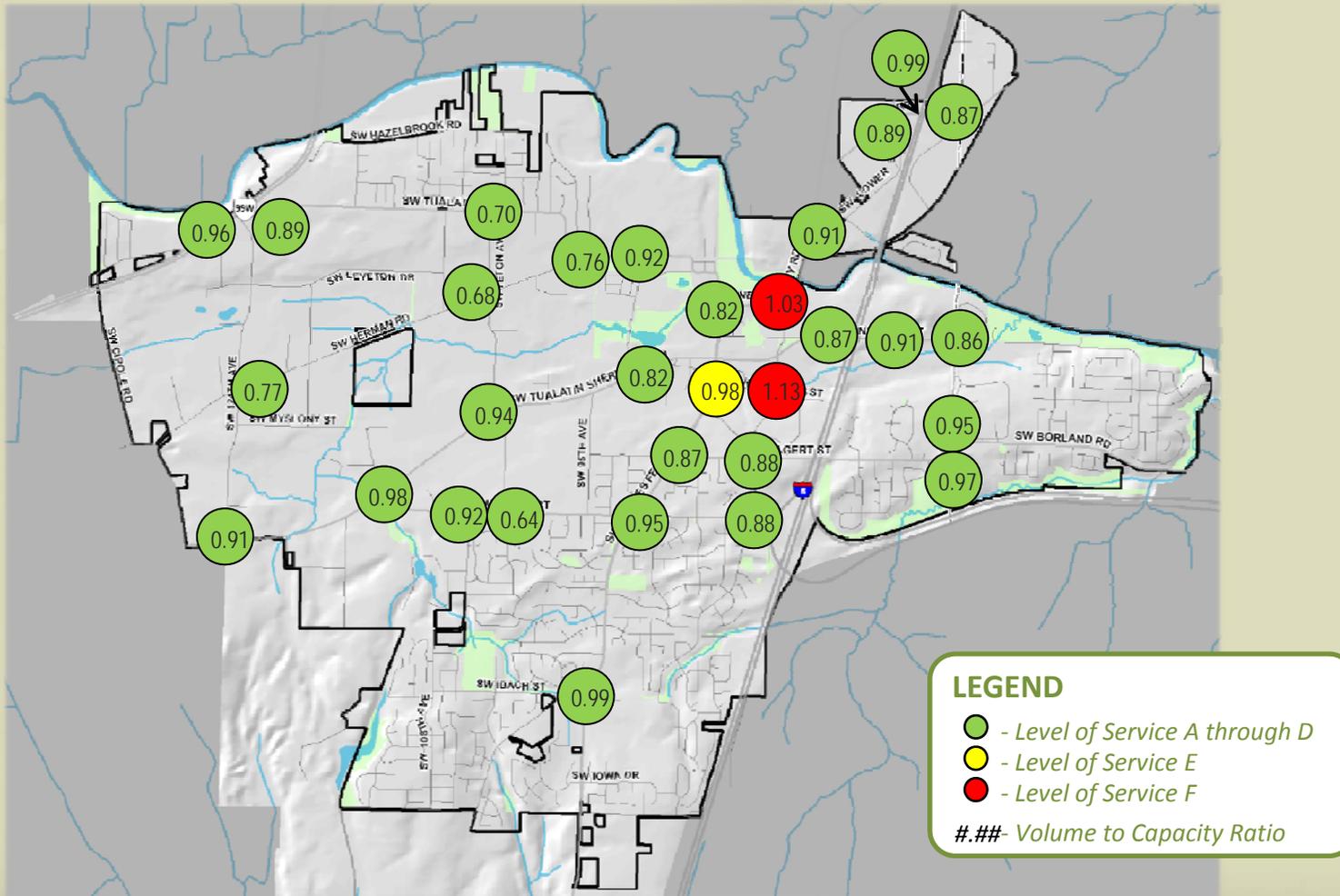


Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	13 min, 40 sec	-1 min, 25 sec
	Bridgeport Village	Tualatin High School	11 min, 30 sec	-40 sec
	Tualatin High School	Nyberg Interchange	9 min, 40 sec	No difference
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	No difference
SW Tualatin Road	115th Avenue	Bridgeport Village	12 min, 30 sec	-30 sec
	Bridgeport Village	115th Avenue	11 min, 20 sec	-20 sec
	115th Avenue	Nyberg Interchange	10 min, 55 sec	+20 sec
	Nyberg Interchange	115th Avenue	10 min, 40 sec	+15 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	15 min, 50 sec	-1 min, 10 sec
	Bridgeport Village	Cipole Road	16 min, 40 sec	-40 sec
	Cipole Road	Nyberg Interchange	11 min, 35 sec	No difference
	Nyberg Interchange	Cipole Road	12 minutes	+10 sec
SW Borland Road / 65th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 25 sec	+5 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	12 min, 10 sec	-45 sec
	Bridgeport Village	Bridgeport Elementary	13 min, 40 sec	-45 sec

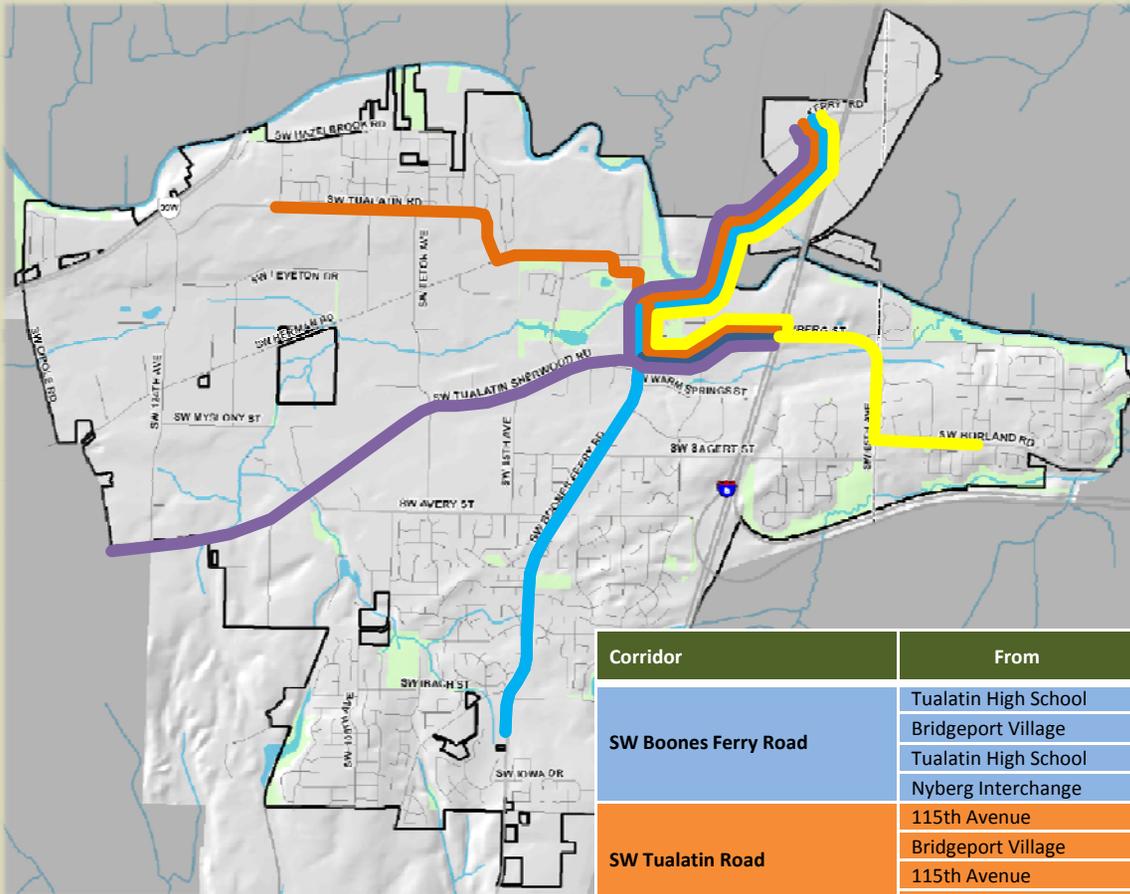
Low Build + 65th Ave + BFR Widening Volume Shifts



Low Build + 65th Ave + BFR Widening Operations



Low Build + 65th Ave + BFR Widening Travel Times



Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	12 min, 35 sec	-2 min, 30 sec
	Bridgeport Village	Tualatin High School	10 min, 35 sec	-1 min, 35 sec
	Tualatin High School	Nyberg Interchange	9 min, 50 sec	+10 sec
	Nyberg Interchange	Tualatin High School	8 min, 25 sec	+15 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	11 min, 30 sec	-1 min, 30 sec
	Bridgeport Village	115th Avenue	10 min, 55 sec	-45 sec
	115th Avenue	Nyberg Interchange	11 minutes	+25 sec
	Nyberg Interchange	115th Avenue	10 min, 55 sec	+30 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	14 min, 55 sec	-2 min, 5 sec
	Bridgeport Village	Cipole Road	15 min, 40 sec	-1 min, 40 sec
	Cipole Road	Nyberg Interchange	11 min, 50 sec	+15 sec
	Nyberg Interchange	Cipole Road	12 min, 20 sec	+30 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 30 sec	+10 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	10 min, 25 sec	-2 min, 30 sec
	Bridgeport Village	Bridgeport Elementary	11 min, 50 sec	-2 min, 35 sec

How do these projects pencil out?

Cost vs. Benefit Perspective

65th Avenue Extension
AM/PM Peak VHT Saved
✓ 548 hours
Project cost
✓ \$22M
Potential 20 year benefit
✓ \$50.9M

Boones Ferry Rd Widening
AM/PM Peak VHT Saved
✓ 244 hours
Project cost
✓ \$17.8M
Potential 20 year benefit
✓ \$22.7M

65th Ave + BFR Widening
AM/PM Peak VHT Saved
✓ 752 hours
Project cost
✓ \$39.8M
Potential 20 year benefit
✓ \$69.9M

Summary of Operations and Travel Time Findings

- Tualatin becomes very congested in the future
- Low Build does a fair job of mitigating intersection operations, but minor travel time changes
- 65th Avenue extension pulls traffic from Boones Ferry Road and enhances that travel time
- Boones Ferry Road widening helps enhance travel times, but creates some intersection issues in downtown
- Combination of 65th Avenue and Boones Ferry Road widening enhances travel times in North Tualatin, but has similar downtown intersection issues

Technical Team Recommendation

- In addition to the Low Build projects, include:
 - ① Include Boones Ferry Road widening project from Martinazzi to Lower Boones Ferry Road
 - ② Include 65th Avenue extension as a refinement plan project
 - Establishes and acknowledges the need for improvements and connectivity in the area
 - Acknowledges the need to work collaboratively with surrounding jurisdictions
 - Identifies a project area that goes into deeper planning analysis to determine details



City of Tualatin

Transportation System Plan Update

Presentation to
Tualatin Transportation Task Force
November 29, 2011

Presentation Objectives

1. What is a Transportation System Plan (TSP)
 - ✓ Why do one?
 - ✓ What do they need to include?
 - ✓ Why do one now?
2. What does Tualatin's TSP look like?
 - ✓ Who develops the TSP?
 - ✓ What is our timeline?



What is a TSP?

- Identifies transportation improvements needed to address current (2012) and future (2035) needs of residents, businesses, and visitors to Tualatin
- Will recommend improvements to all modes of transportation in Tualatin
- Includes infrastructure investments and policy recommendations

Why do a TSP?

- A TSP is a resource for staff, policy makers, and the public to:
 - ✓ Identify future transportation facilities
 - ✓ Direct funding resources to transportation projects
 - ✓ Support anticipated development impacting the community
- Serves as the transportation element of a local comprehensive plan



Why do a TSP?

- Provides long range direction for all modes
- Ensures transportation improvements meet future land use needs
- Ensures transportation options for all users
- Provides a link to state funding



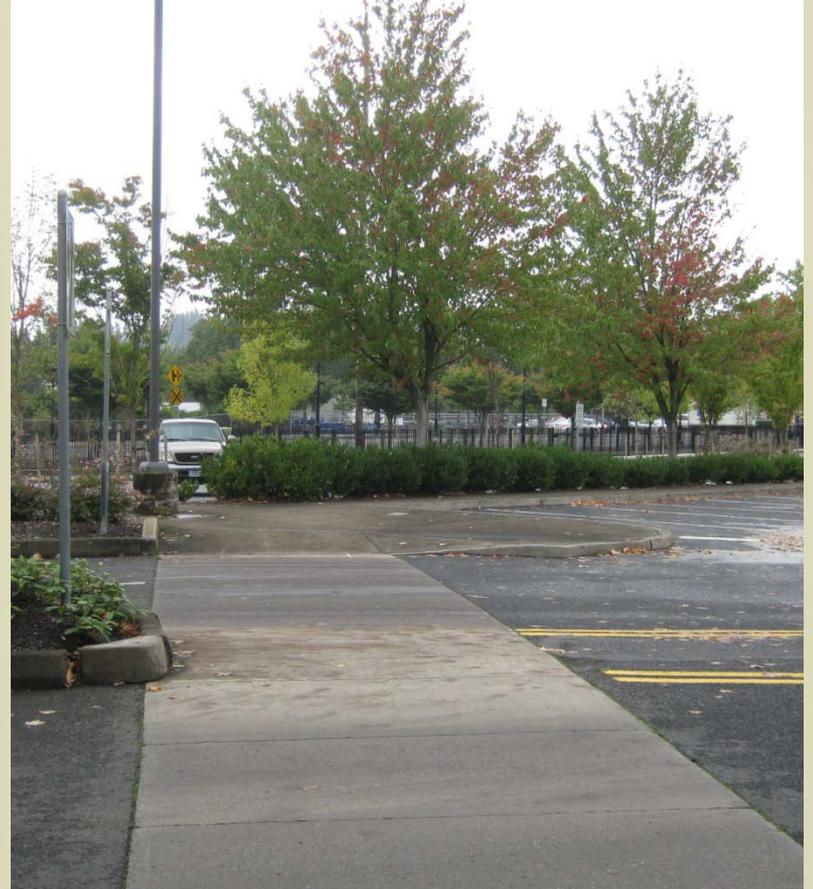
What Must a TSP Include?

- Be consistent with State TSP, Metro's RTP, and County TSP
- Contain the following elements:
 - Roadway
 - Bicycle and pedestrian
 - Public transportation
 - Air, rail, water, and pipeline
 - Determination and explanation of needs
 - Policies and regulations to implement the TSP
 - Transportation Financing Program



Why Update Tualatin's TSP Now?

- Tualatin's last TSP was completed in 2001
- Metro requires that we update our TSP within two years of their Regional Transportation Plan
- As Tualatin and the region changes, transportation goals must adapt to the ways that people want to get around.



What Must a TSP Include?

- Be consistent with State TSP, Metro's RTP, and County TSP
- Contain the following:
 - Roadway element
 - Bicycle and pedestrian element
 - Public transportation element
 - Air, rail, water, and pipeline element
 - Determination and explanation of needs
 - Policies and regulations to implement the TSP
 - Transportation Financing Program



The Tualatin TSP

- Phase 1: Understanding Community Concerns
- Phase 2: Deliberation and Discussion
- Phase 3: Options and Recommendations



Who is Involved in Developing the Tualatin TSP?

- City Council
- TPAC
- Task Force
- Working Groups
- City staff
- Consultant Team
 - CH2M HILL
 - JLA
 - DKS
 - Angelo Planning



Tualatin TSP - Main Steps

STEP 1

Identify Needs and Opportunities

- Gather data
- Analyze conditions
- Interview stakeholders
- Establish goals and measures
- Analyze “no build”

STEP 2

Develop and Evaluate Solutions

- Brainstorm “universe” of solutions
- Apply measures
- Develop recommendations

STEP 3

Make Recommendations

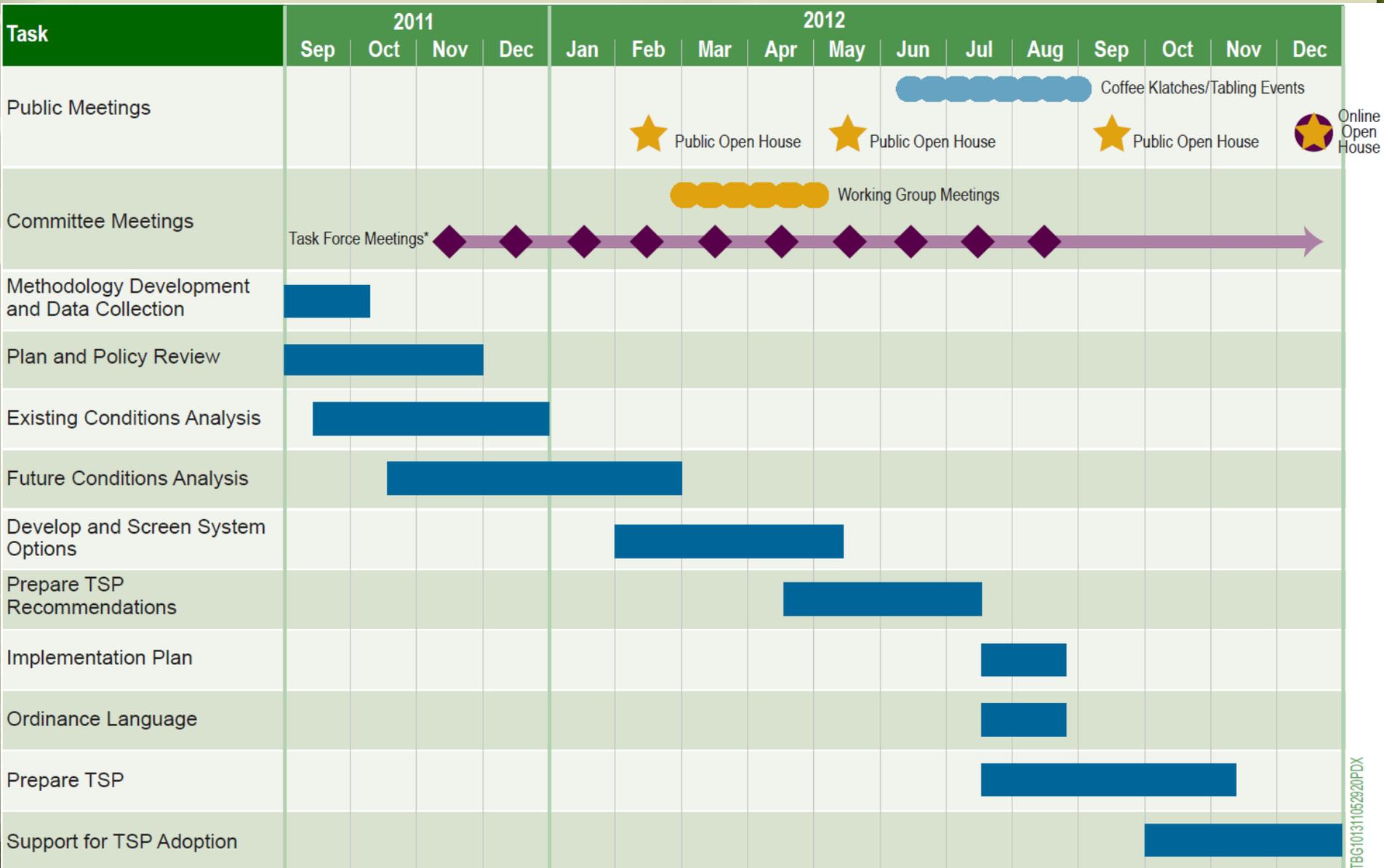
- Analyze “build”
- Interview stakeholders
- Refine recommendations
- Prepare costs
- Identify funding options
- Prioritize recommendations

STEP 4

Create and Adopt the Plan

- Draft plan
- Review with community
- Refine plan
- Present to Commission
- Present to Council
- Adopt plan

Tualatin TSP Schedule





City of Tualatin

Virtual Tour of Existing Conditions

Presentation to
Tualatin Transportation Task Force

December 15, 2011



What existing conditions we studied

- Land use
- Roadway system and conditions
- Traffic operations (congestion, etc.)
- Safety
- Bicycle System
- Pedestrian System
- Public Transit
- Freight rail, pipeline, waterway, airport

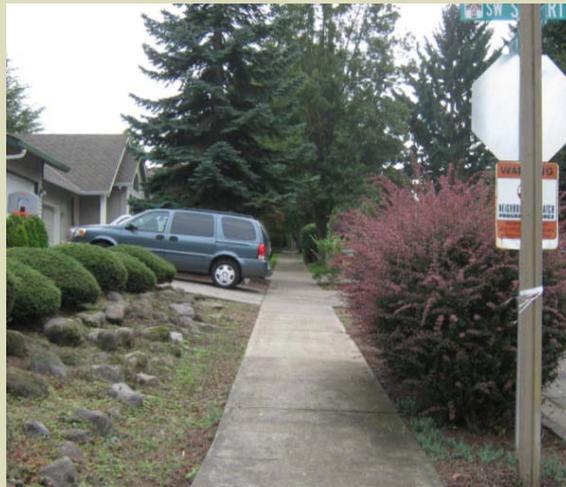
Why do we study existing conditions?

- Understand the current state of the transportation system in Tualatin
 - Opportunities
 - Deficiencies
- Baseline for analysis
- Required by state TSP guidelines

Land use

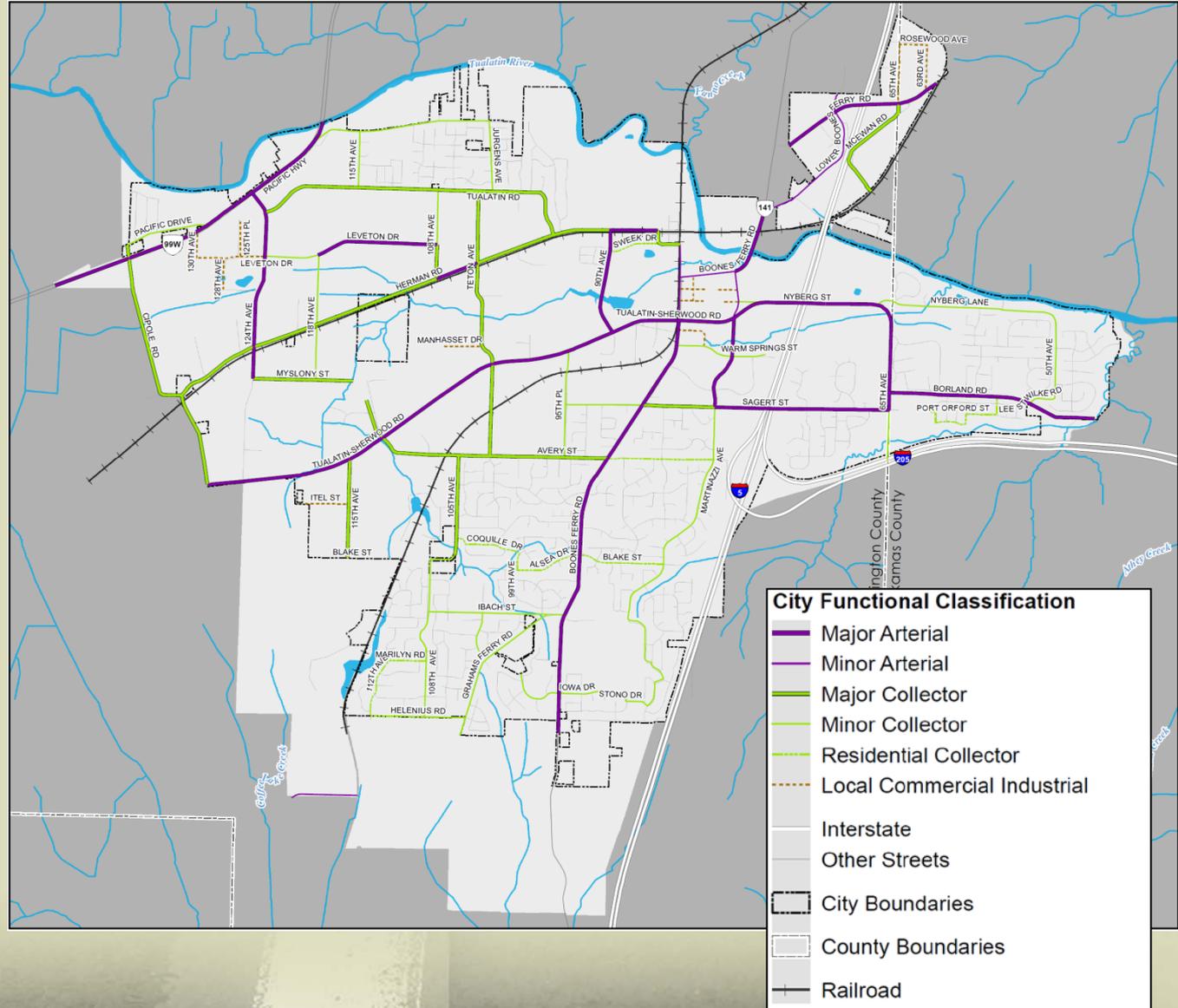
Land uses affect the transportation system

- Residential
- Employment
 - Manufacturing
 - Office
- Commercial



Roadway System and Conditions

- Roadway designations
- Compare to standards
- Intersection configuration

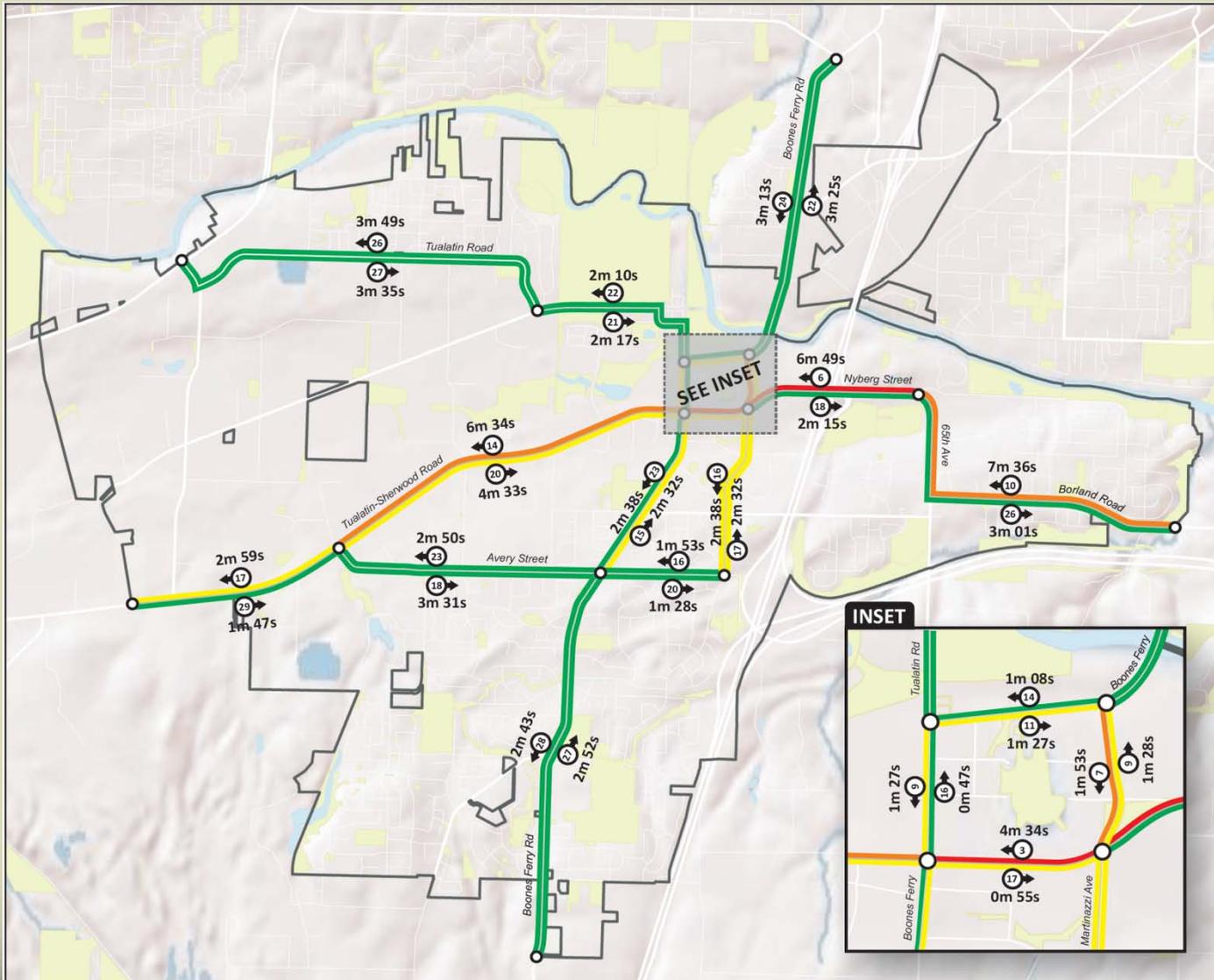


Traffic Operations

- Congested intersections and road segments
- Rush hour
- Truck percentages
- Travel speeds

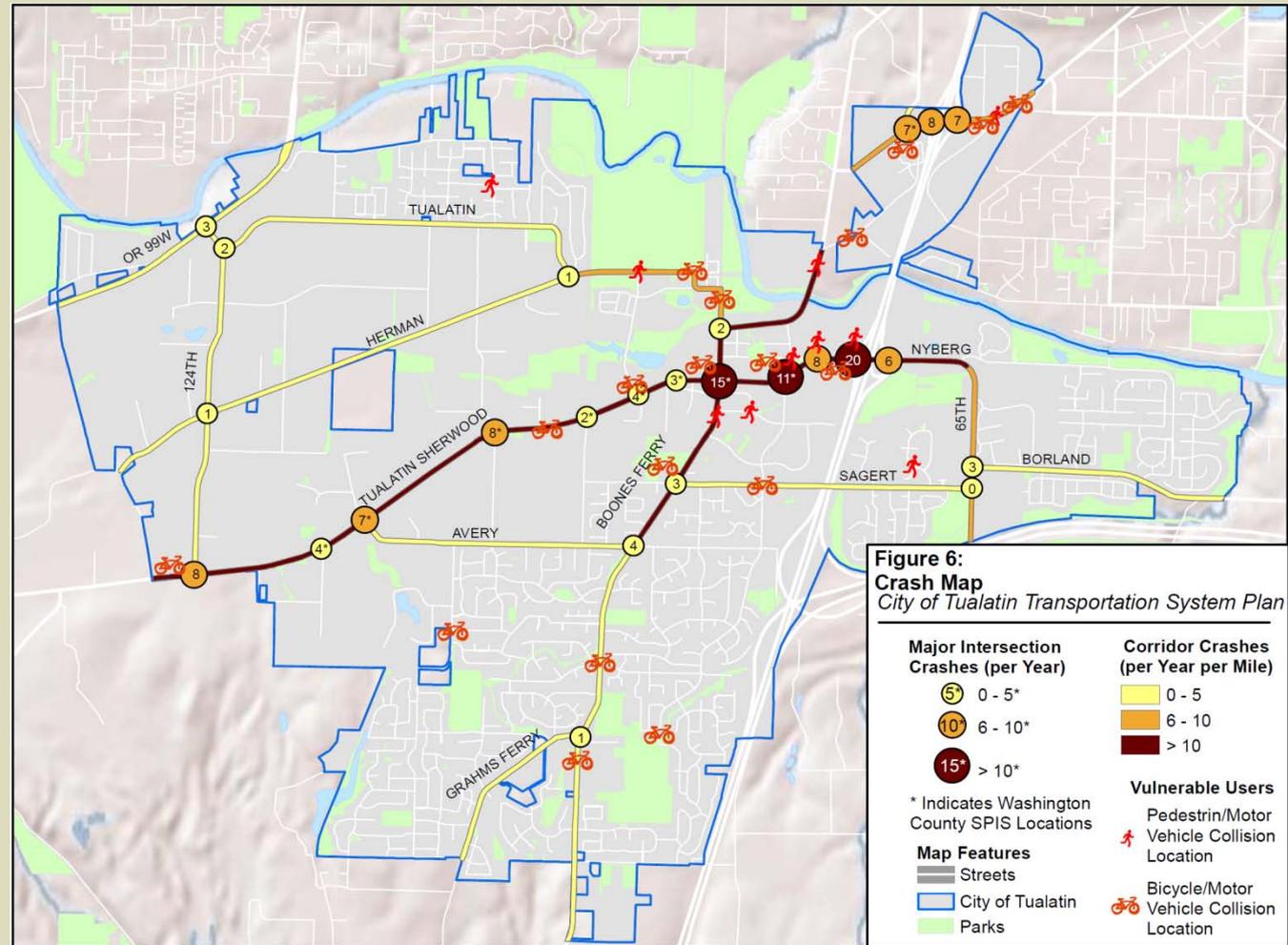


Travel time in Tualatin



Safety

- Crash locations
- Areas with multiple crashes



Safety Priority Index Sites (SPIS) compare crash rate to state or county averages

Bicycle Facilities

- Bicycling is an alternate to the vehicle
- Accommodates those who cannot or do not want to drive



Bicycle Needs

- Difficult left turns
- Narrow bike lanes
- Areas with low bike visibility
- Obstacles in bike lanes
- Gaps in the network



Pedestrian Facilities



- Everyone is a pedestrian
- Alternative for those who cannot or do not want to drive

Pedestrian Needs

- Sidewalk gaps
- Barriers on sidewalks
- Interconnected network of multi-use paths
- Safety



Public Transit

- 6 TriMet lines
- 1 SMART line
- 4 Park and Rides
- Commuter Rail
- Ridership - average daily passengers getting on and off:

-Line 96: 1190

-Line 76: 1080

-WES: 440

-Line 12: 130

-Lines 37 and 38: 50

-Line 36: 40



Freight Rail and Pipeline

Could potentially impact other transportation

- 2 freight rail lines
- 1 natural gas pipeline within the city
- 1 gasoline pipeline in the SW Concept Plan area



What we heard from you



TUALATIN TSP

Home About the Project Public Involvement Comments Español | Website Map | Font: A A+

Comment Map

The first step in updating the Transportation System Plan is assessing what we have. Use our interactive comment map below to share your perspective on Tualatin's transportation system. Click on the red transportation icons to see what others have said about places in Tualatin. You can agree or disagree with the comments or submit your own thoughts about a place.

Share this page: [f](#) [t](#) [g+](#) [p](#) [r](#)

[Submit a Comment](#) [Browse Comment List](#)



Map Layers [Comment Map](#)

Filter by transportation type...



City of Tualatin

Goals and Objectives

Tualatin TSP and Linking Tualatin

Presentation to
Tualatin Transportation Task Force
January 19, 2012

Tualatin TSP Goals



Goal Category	Goal
Access	Maintain and enhance the transportation system to reduce transit times, provide travel time reliability, and provide a functional and smooth transportation system
Safety	Improve safety for all users, all modes, all ages, and all abilities within the City of Tualatin
Vibrant Community	Allow for a variety of alternatives transportation choices for citizens of and visitors to Tualatin to support a high quality of life and the livability of the community

Tualatin TSP Goals (Continued)



Goal Category	Goal
Support Local Economy	Support local employment, local businesses and a prosperous community
Health/ Environment	Provide options for active transportation to improve the health of citizens in Tualatin and ensure transportation does not adversely impact public health or the environment

Tualatin TSP Goals (Continued)



Goal Category	Goal
Equity	Consider the distribution of benefits and impacts from transportation alternatives, and work towards fair access to transportation facilities for all users, all ages, and all abilities
Ability to be built	Promote alternatives that are able to be implemented because they have community and political support and are likely to be funded.

Linking Tualatin Goals

Goal Category	Goal
Community	Provide meaningful opportunities for citizens to be involved in the Linking Tualatin planning process, particularly those most directly affected by the outcomes.
Economy	Enhance transit connections for local employers and employees to strengthen Tualatin's economy.
Land Use	Develop land use plans for focus areas that support future use of transit as part of a multi-modal, convenient, safe, and well-connected transportation system.

Linking Tualatin Goals



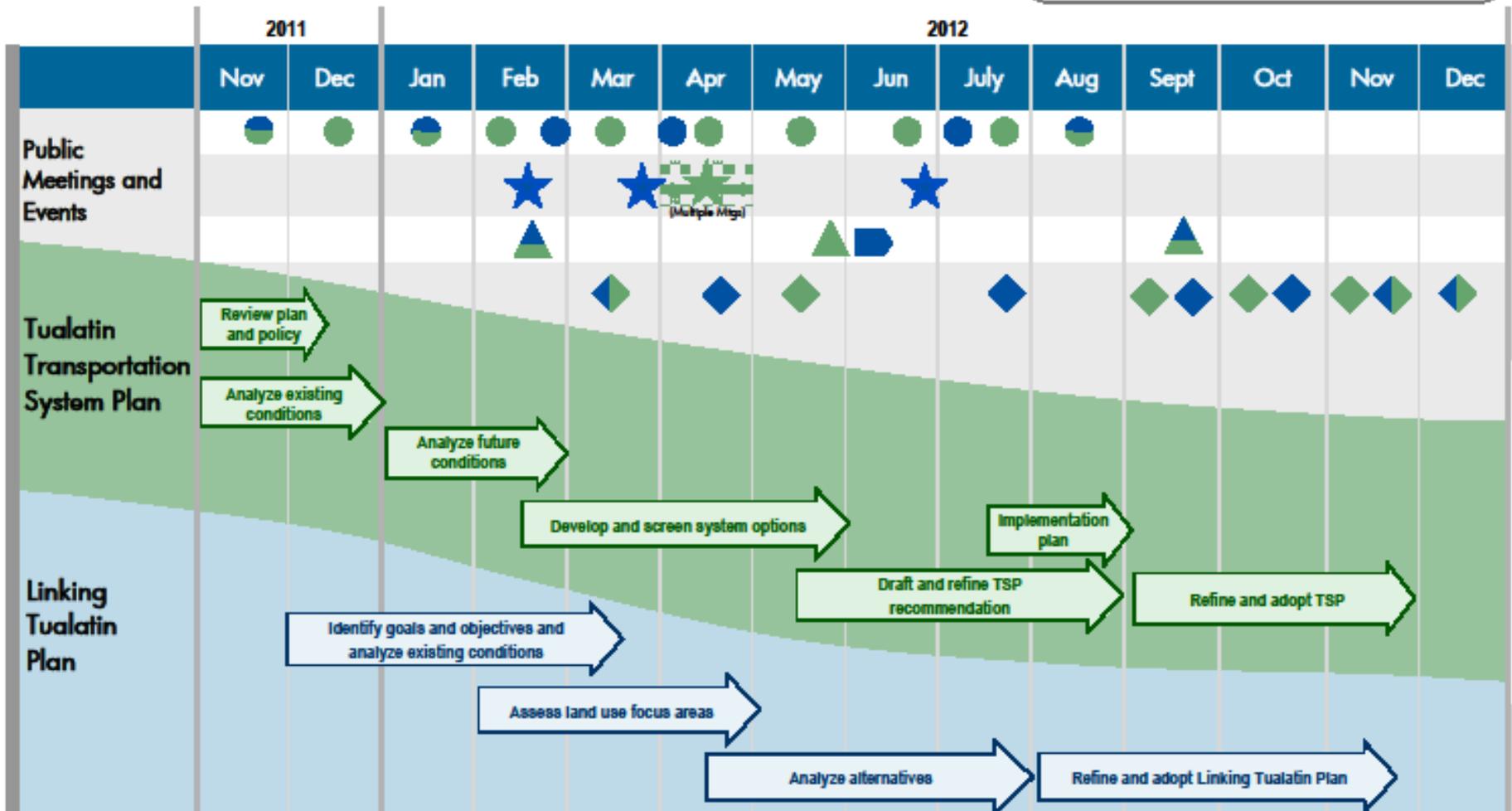
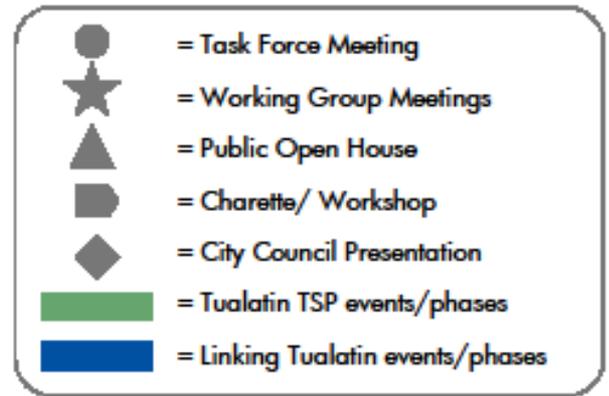
Goal Category	Goal
Transportation Choice and Mobility	Provide a full range of safe, efficient transportation options within transit focus areas, particularly linkages between transit and other modes of transportation, including bicycling, walking and driving.
Consistency and Coordination	Coordinate with regional partners to leverage regional resources, while building on and furthering local planning and other community objectives.
Implementation	Develop common sense, cost-effective and efficient tools and strategies to ensure implementation of project recommendations.

Transportation Task Force Schedule

This shows the schedule for two projects:

The Tualatin Transportation System Plan and the Linking Tualatin Plan.

Many public events and meetings are scheduled for the projects. Symbols in green represent the Tualatin TSP, and symbols in blue represent Linking Tualatin. Symbols that are both blue and green represent joint events for both projects.



Understanding Future Conditions



What is a Future Conditions Analysis?

The future conditions analysis for a transportation system plan helps identify future needs, opportunities, and constraints for circulation and transportation system connections for all transportation modes.

The analysis starts with an examination of existing conditions. Community values and opinions on the various modes of travel are gathered to help inform the vision of the future for transportation in the community, and a technical analysis of future population and employment growth assumptions are combined with anticipated future development to provide a picture of future travel demand.

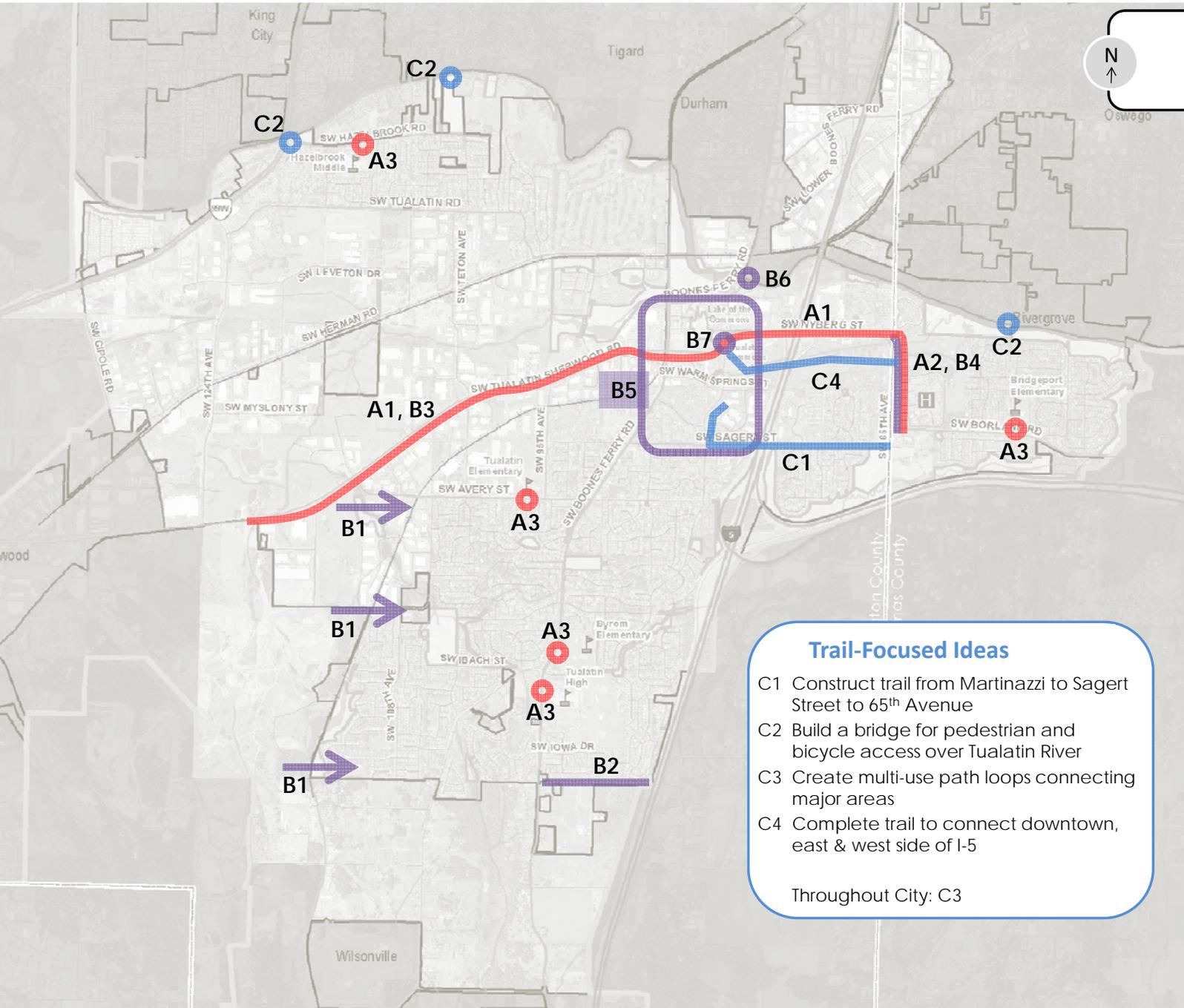
Typically, future conditions are forecasted for a planning horizon of 20 years and relate primarily to motor vehicles, however, conditions and connections for other modes (such as pedestrian, bicycle, and transit) are also included. Considering these other modes in addition to motor vehicles helps create a balanced transportation system that serves the entire community.

Why is a Future Conditions Analysis Important?

Future conditions analyses help identify areas that are underserved by the existing transportation network or areas that could be improved by better connections or enhanced environments for a particular mode. Another important element of the analysis is determining potential infrastructure improvements necessary to create a balanced multi-modal system that serves the community.

The TSP process will establish a transportation vision for the future, determine the priority of improvements, and identify funding sources based on the future conditions analysis and the areas identified for improvement.

Bicycle and Pedestrian Working Group



Safety-Focused Ideas

- A1 Add pedestrian-focused crossing treatments (such as HAWK treatments) at key crossings of Tualatin-Sherwood Road and Nyberg Street
- A2 Separate walking/bike area with plantings or barriers on 65th Avenue between Borland Road and Nyberg Lane
- A3 Focused safety improvements near schools at crossings

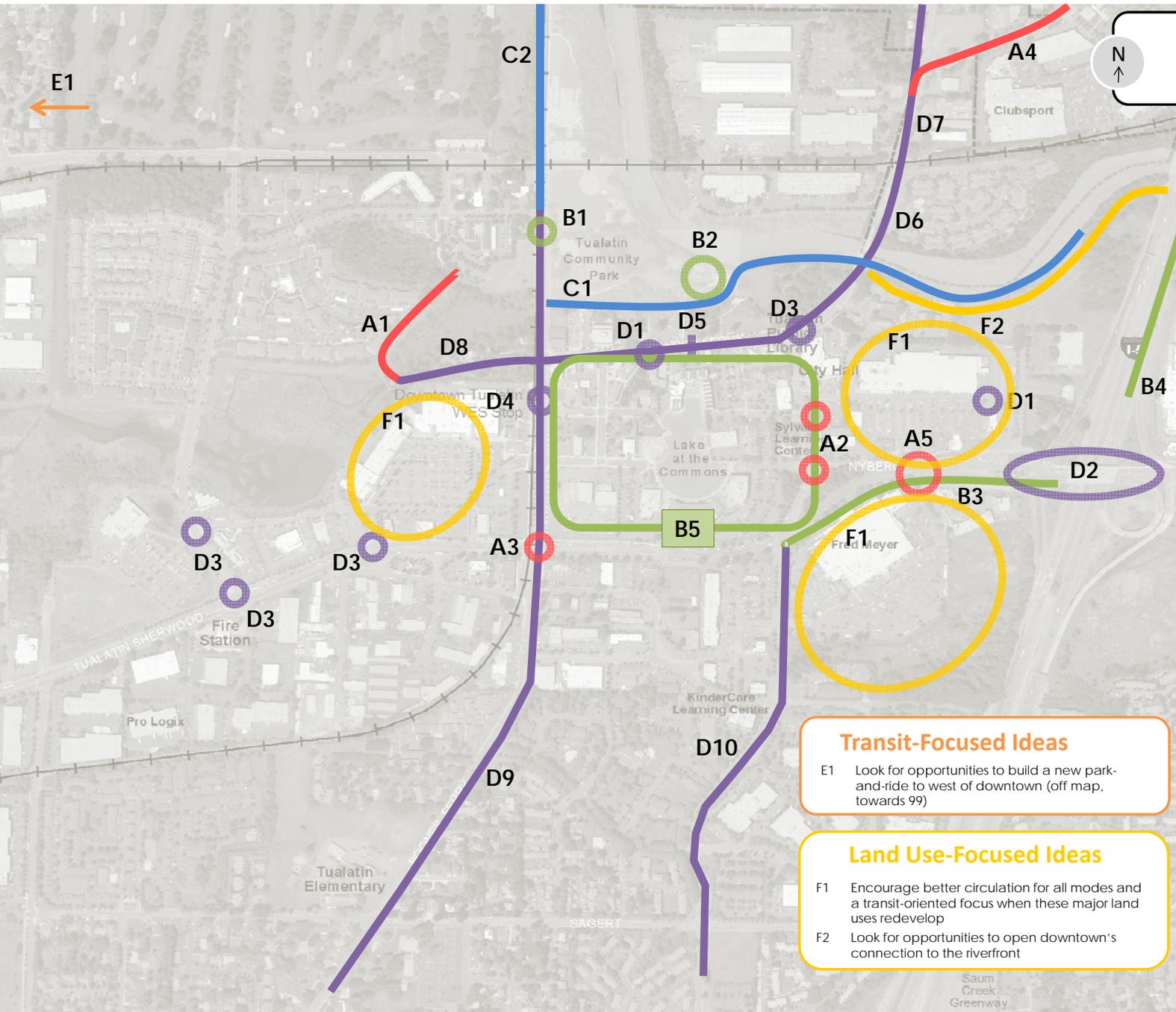
Facility-Focused Ideas

- B1 Connect Tonquin trail with neighborhoods to the east
- B2 Add sidewalks and bicycle lanes on Norwood Road
- B3 More focused improvements on Tualatin-Sherwood Road to make it more bicycle and pedestrian friendly
- B4 Add bicycle lane on 65th Avenue on one side near the hospital
- B5 Focused bicycle facility improvements in heart of downtown, including Martinazzi, Avenue, Boones Ferry Road, and Tualatin-Sherwood Road
- B6 Better accommodate pedestrians on the bridge
- B7 Build a raised intersection at Seneca and Nyberg (crossing Boones Ferry Road)

Trail-Focused Ideas

- C1 Construct trail from Martinazzi to Sagert Street to 65th Avenue
- C2 Build a bridge for pedestrian and bicycle access over Tualatin River
- C3 Create multi-use path loops connecting major areas
- C4 Complete trail to connect downtown, east & west side of I-5

Throughout City: C3



Downtown Working Group

Safety-Focused Ideas

- A1 Upgrade bridge surface and improve illumination along path
- A2 Consider raised intersections for pedestrians
- A3 Grade separated railroad crossing on Tualatin-Sherwood Road
- A4 Slower speeds near Bridgeport
- A5 Redesign Fred Meyer to Kmart intersection

Congestion-Focused Ideas

- B1 Reconfigure park entrance to right in/right out
- B2 Provide secondary exit from park, and provide additional parking
- B3 Add an eastbound lane on Tualatin-Sherwood Road from Martinazzi to I-5
- B4 Add capacity to I-5 northbound (between Tualatin and OR 217)
- B5 Create a one-way circulator loop around downtown

Connectivity-Focused Ideas

- C1 Build a trail that extends from Boones Ferry to the downtown core along river and extend to the greenway
- C2 Extend Boones Ferry Road to 85th /Hall

Bicycle/Pedestrian-Focused Ideas

- D1 Redesign pedestrian crossing
- D2 Upgrade Nyberg interchange to improve the crossing experience for bicyclists
- D3 Improve pedestrian crossings
- D4 Add pedestrian crossing
- D5 Consider a pedestrian skybridge that connects downtown retail businesses
- D6 Improve sidewalks and bicycle lane
- D7 Bike and pedestrian improvements near Bridgeport Village
- D8 Open crosswalk at Boones Ferry Road to existing boardwalk
- D9 Provide "Share the Road" signage and/or other visual cues to motorists to accommodate bicycles
- D10 Add bicycle lane or "Share the Road" signs

- ### Transit-Focused Ideas
- E1 Look for opportunities to build a new park-and-ride to west of downtown (off map, towards 99)

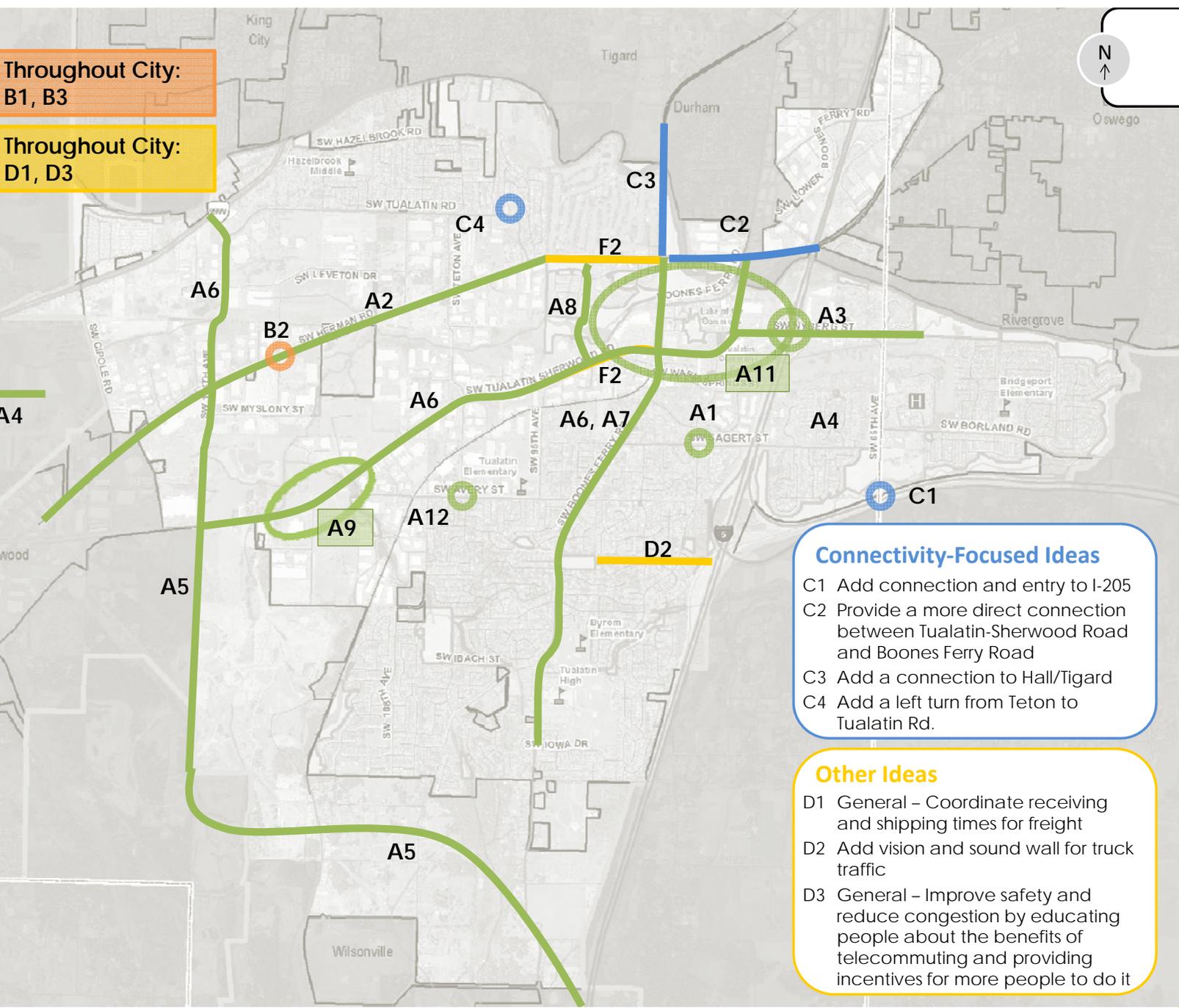
- ### Land Use-Focused Ideas
- F1 Encourage better circulation for all modes and a transit-oriented focus when these major land uses redevelop
 - F2 Look for opportunities to open downtown's connection to the riverfront

Industrial and Freight Working Group



Throughout City:
B1, B3

Throughout City:
D1, D3



Congestion-Focused Ideas

- A1 Signal, roundabout, or all-way stop at Sagert/ Martinazzi
- A2 Divert truck traffic from Tualatin-Sherwood Road to Herman Road
- A3 Reconsider the Nyberg interchange – consider an urban interchange, and an undercrossing along Nyberg to avoid signal and conflicts
- A4 Reconsider the connection between 99W and Tualatin-Sherwood Road (NOTE: This idea is in Sherwood)
- A5 Extend 124th and connect to I-5
- A6 Provide coordinated signal timing and access management along major arterials (Tualatin-Sherwood Road, Boones Ferry Road, and 124th Avenue)
- A7 Widen Boones Ferry through town from bridge to light at top of hill
- A8 Close 90th to 18 wheel trucks
- A9 Improvements to help mobility of through traffic
- A11 Create a loop road around central downtown with a turn radius that works for trucks
- A12 Improve turn radius at Avery and Teton

Connectivity-Focused Ideas

- C1 Add connection and entry to I-205
- C2 Provide a more direct connection between Tualatin-Sherwood Road and Boones Ferry Road
- C3 Add a connection to Hall/Tigard
- C4 Add a left turn from Teton to Tualatin Rd.

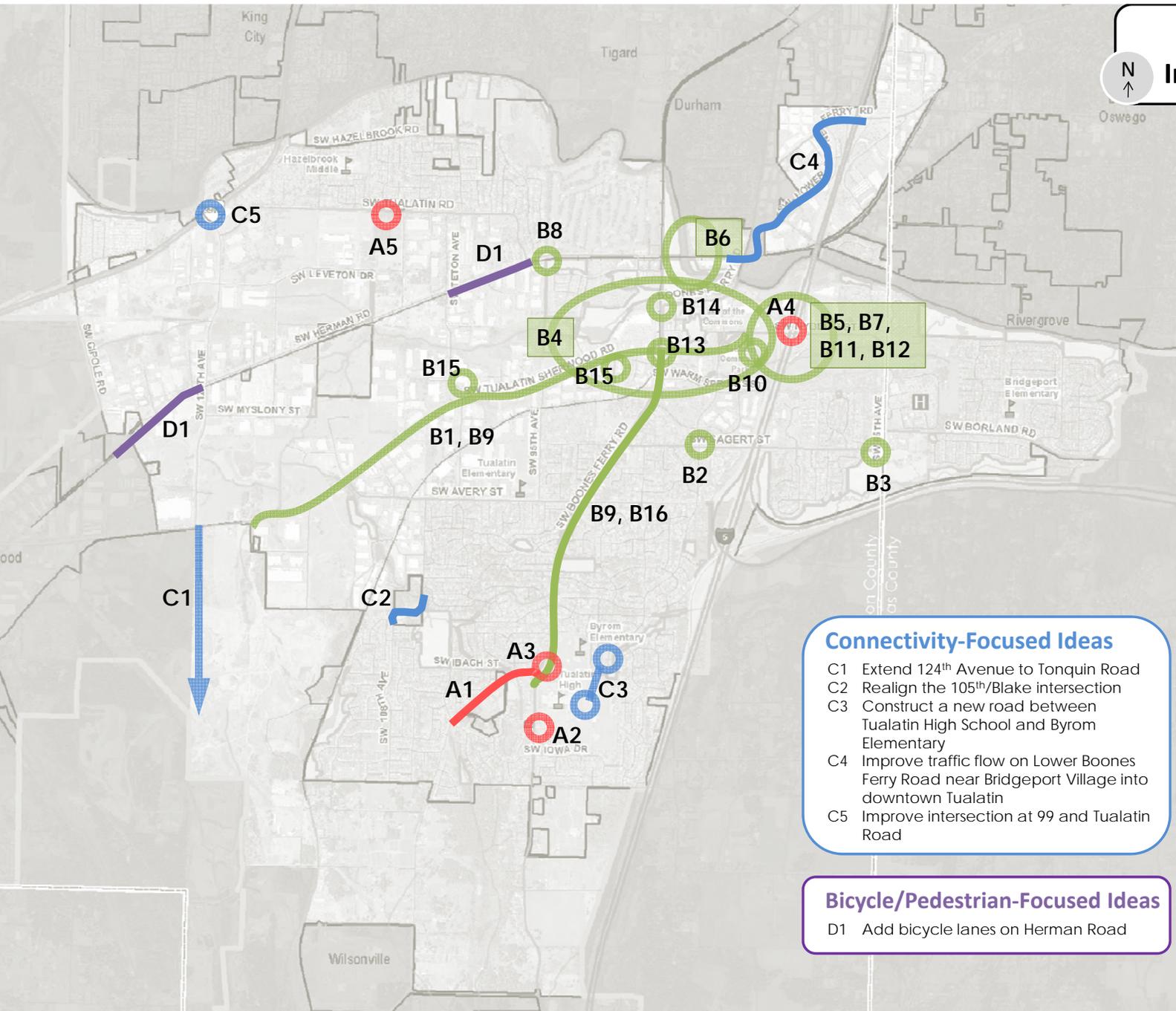
Other Ideas

- D1 General – Coordinate receiving and shipping times for freight
- D2 Add vision and sound wall for truck traffic
- D3 General – Improve safety and reduce congestion by educating people about the benefits of telecommuting and providing incentives for more people to do it

Transit-Focused Ideas

- B1 Add Saturday, Sunday and late evening transit shuttle service
- B2 Add rail station with easy offload and access for industry
- B3 Provide a local loop bus

Major Corridors and Intersections Working Group



Safety-Focused Ideas

- A1 Lower speeds, add guardrail and shoulders to this section of Grahams Ferry Road
- A2 Add traffic signal at Tualatin High School
- A3 Consistent speed zones for both Tualatin High School and Byrom Elementary School
- A4 Raise elevation of SB off-ramp to allow better view of traffic on Nyberg Road
- A5 Add traffic signal on Tualatin Road

Congestion-Focused Ideas

- B1 Widen Tualatin Sherwood Road
- B2 Signal, roundabout, or all-way stop at Sagert/ Martinazzi
- B3 Realign Sagert/Borland intersection
- B4 Consider a traffic loop in downtown (one way, right turn only)
- B5 Don't allow right turn on red at Nyberg Interchange
- B6 Rethink access in vicinity of Tualatin Community Park
- B7 Consider removing ramp signals at Nyberg interchange
- B8 Prohibit left turns out of 108th or remove trees in SW corner
- B9 Coordinate signal timing on Boones Ferry and Tualatin Sherwood Roads
- B10 Redesign the intersection at the Fred Meyer (from Nyberg Road)
- B11 Consider redesigning the Nyberg interchange into a full cloverleaf
- B12 Make 2 right lanes okay to make right turn from I-5 North onto Nyberg
- B13 Extend length of the NB left turn lane and the SB right turn lane on Boones Ferry/Tualatin Sherwood Road to reduce backup from WES train
- B14 Reconfigure Boones Ferry Road at Tualatin Road
- B15 Add a 4-way stop by 90th at Kaiser
- B16 Add bus pullouts on Boones Ferry Road

Connectivity-Focused Ideas

- C1 Extend 124th Avenue to Tonquin Road
- C2 Realign the 105th/Blake intersection
- C3 Construct a new road between Tualatin High School and Byrom Elementary
- C4 Improve traffic flow on Lower Boones Ferry Road near Bridgeport Village into downtown Tualatin
- C5 Improve intersection at 99 and Tualatin Road

Bicycle/Pedestrian-Focused Ideas

- D1 Add bicycle lanes on Herman Road

Neighborhood Livability Working Group

Safety-Focused Ideas

- A1 Explore treatments that discourage through and truck traffic along Tualatin Road while encouraging through and truck traffic along Herman Road
- A2 Improve lighting on Hazelbrook Road
- A3 Reroute school buses away from Tualatin Community Park and two railroad crossings
- A4 Add a roundabout at Boones Ferry Road and Norwood
- A5 Explore ways to make Boones Ferry Road more pedestrian-friendly, including the creation of one consistent speed limit

Congestion-Focused Ideas

- B1 Signal, roundabout, or all-way stop at Sagert/ Martinazzi
- B2 Add a dedicated right turn into Nyberg Woods
- B3 Realign Sagert/Borland intersection (potential roundabout)

Connectivity-Focused Ideas

- C1 Connect 124th Avenue to Tonquin Road
- C2 Balance the needs of neighborhood with local truck movement along 108th Avenue. Beautify 108th with improvements. Consider disallowing trucks
- C3 Balance the needs of neighborhood with local truck movement along Avery Street
- C4 Force all trips to stop before taking a right turn onto Boones Ferry Road

Transit-Focused Ideas

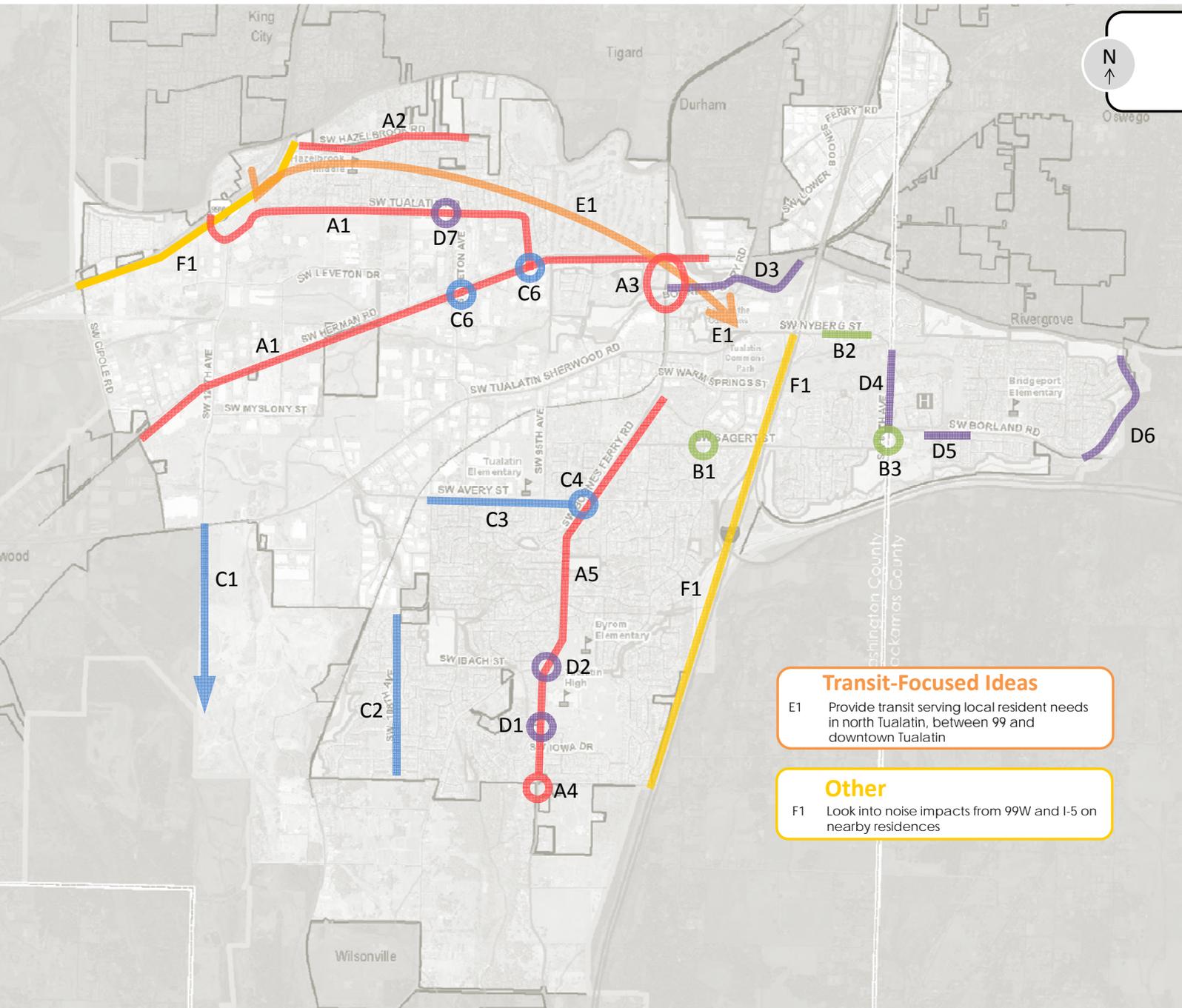
- E1 Provide transit serving local resident needs in north Tualatin, between 99 and downtown Tualatin

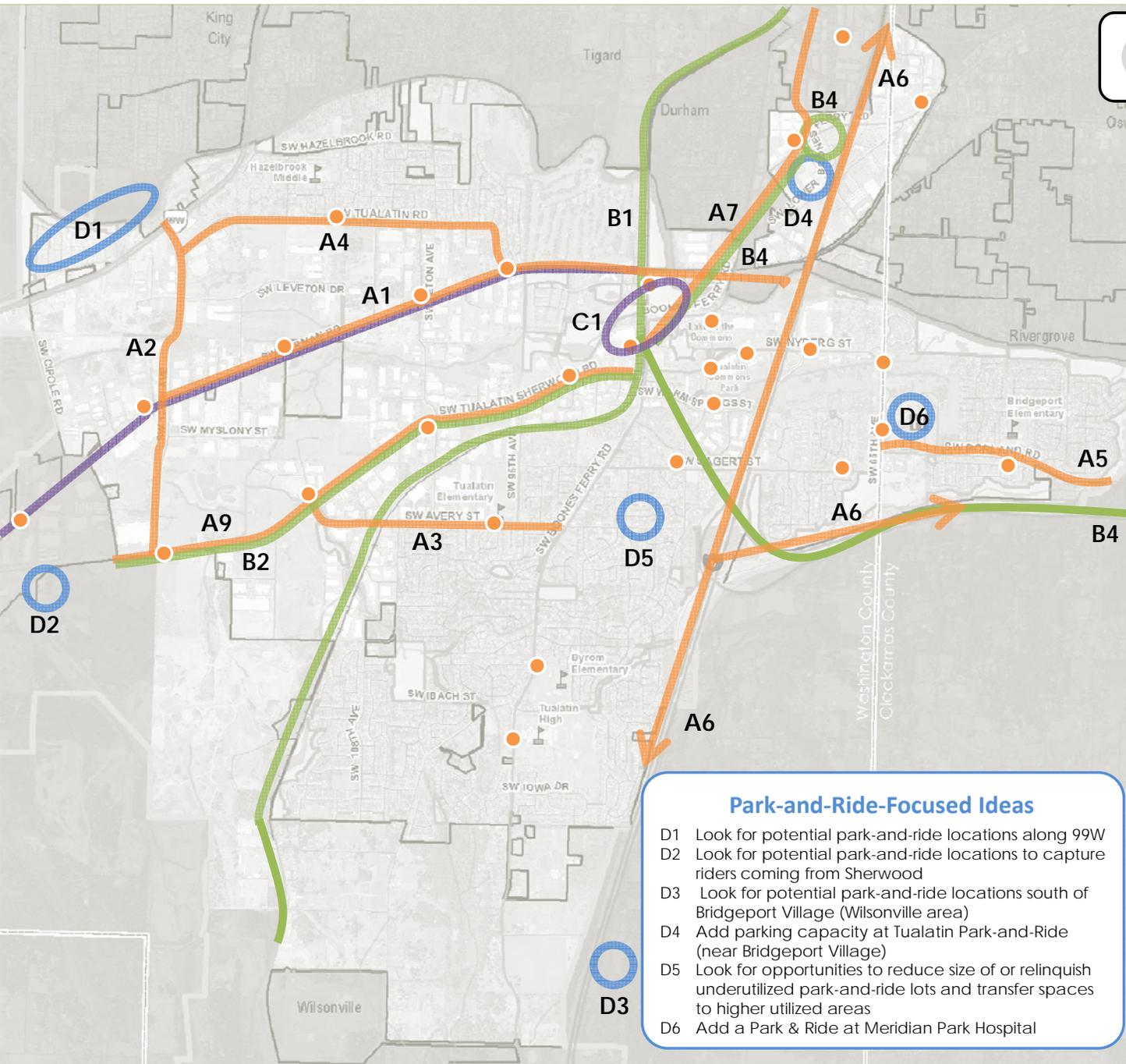
Other

- F1 Look into noise impacts from 99W and I-5 on nearby residences

Bicycle/Pedestrian-Focused Ideas

- D1 Consider a pedestrian overcrossing on Boones Ferry Road
- D2 Consider pedestrian islands on Boones Ferry Road, near Byrom Elementary and Tualatin High schools
- D3 Provide a multi use path along the river
- D4 Connect sidewalk on east side of 65th Avenue
- D5 Repair gap in sidewalk on the south side of Borland Road
- D6 Add multi-use path as part of Tualatin Trail
- D7 Provide focused pedestrian crossing improvements





Transit Working Group Results of Meeting #2

- ### Bus Service-Focused Ideas
- A1 Provide bus transit service on Herman Road
 - A2 Provide bus transit service on 124th Street
 - A3 Provide bus transit service on Avery Street
 - A4 Provide bus transit service on Tualatin Road between downtown and 99
 - A5 Extend #76 bus to Wankers via Food Pantry (might be every other bus or every third bus)
 - A6 Provide express bus service between Tualatin and downtown Portland, Airport, Clackamas, and Salem
 - A7 Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
 - A8 Provide a loop bus route around the city
 - A9 Add bus line from Yamhill Transit District to WES
 - A10 Create an on-call shuttle for industrial and manufacturing workers during the day
 - A11 General - use SMART model for local buses
 - A12 General - need extended service for all transit
 - A13 General - use more energy efficient buses
 - A14 Coordinate bus schedules with WES schedule
- Denotes potential bus stop locations that would serve major employers and activity centers in Tualatin
- Throughout City: A8, A10, A11, A12, A13, A14

- ### Rail Service-Focused Ideas
- B1 Eliminate freight rail trips during rush hours, to avoid interrupting bus and WES service
 - B2 Provide rail or high capacity bus transit service on Tualatin-Sherwood Road (towards Sherwood)
 - B3 Increase transit frequency (especially WES)
 - B4 Extend MAX from Bridgeport Village to Clackamas with an elevated pedestrian bridge to connect station and park-and-ride with shopping
 - B5 Decrease stop spacing on higher-volume routes
- Throughout City: B3, B5

- ### Park-and-Ride-Focused Ideas
- D1 Look for potential park-and-ride locations along 99W
 - D2 Look for potential park-and-ride locations to capture riders coming from Sherwood
 - D3 Look for potential park-and-ride locations south of Bridgeport Village (Wilsonville area)
 - D4 Add parking capacity at Tualatin Park-and-Ride (near Bridgeport Village)
 - D5 Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots and transfer spaces to higher utilized areas
 - D6 Add a Park & Ride at Meridian Park Hospital

- ### Land Use-Focused Ideas
- C1 Improve the WES station with a vision of its being a central focus of downtown Tualatin and its main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections



City of Tualatin

Project Screening Results

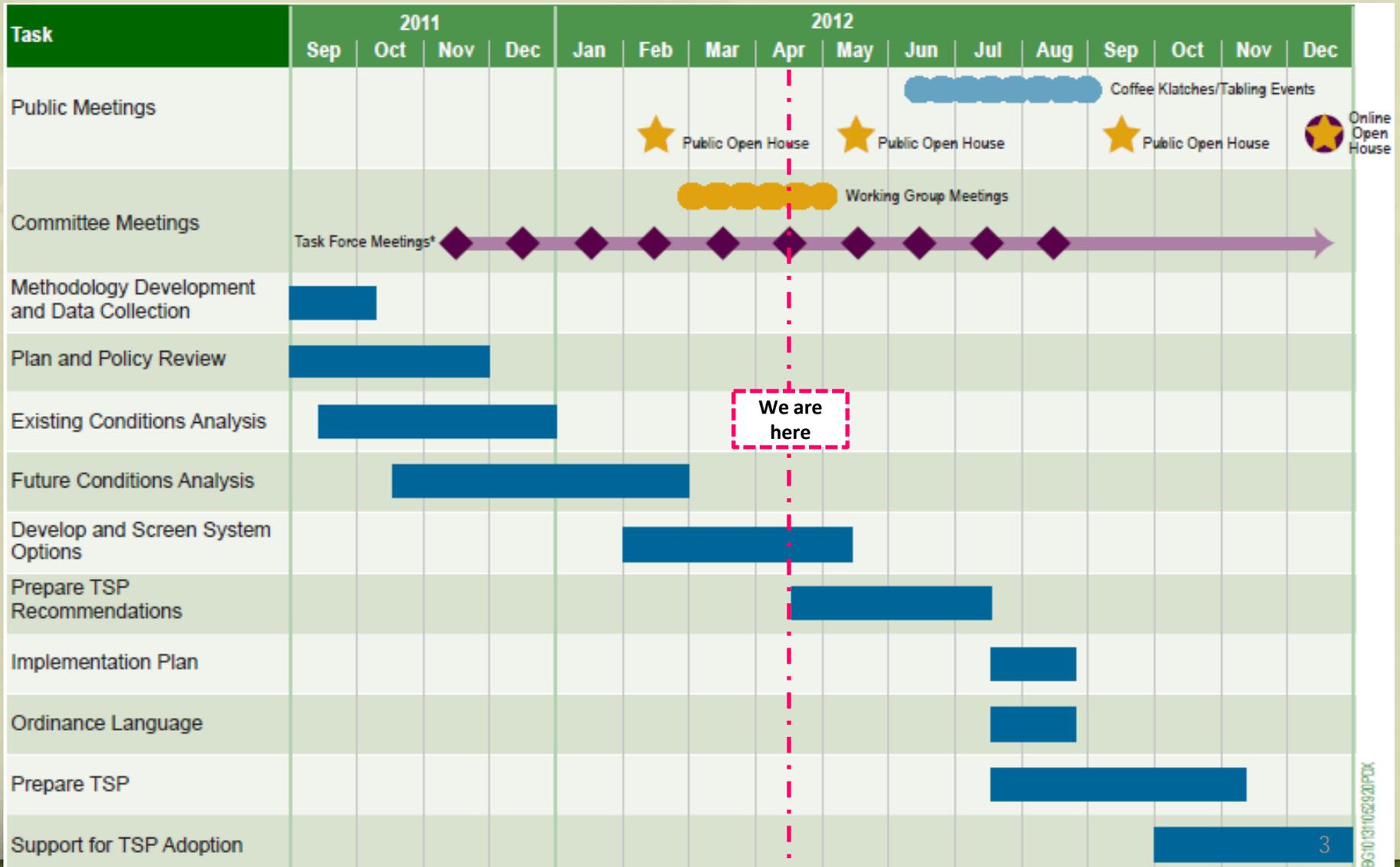
Tualatin TSP

Presentation to
Tualatin Transportation Task Force
April 19, 2012

Presentation Outline

- What is the Screening Process?
- Screening Results
 - Bicycle and Pedestrian
 - Downtown
 - Neighborhood Livability
 - Major Corridors and Intersections
 - Transit
 - Industrial and Freight
- Next Steps

Tualatin's TSP Timeline



What Progress Have we Made?

- Remember March's theme?
 - "Generating a long list of potential project ideas"
- By April 1, the City collected a total of **248** preliminary project ideas from:
 - The first round of working groups (Feb/March)
 - The first TSP open house (Feb)
 - Online comment map and website
 - You! At March 15th Task Force Workshop
 - Ideas from various small group discussions (CIO meetings, Allied Waste, Chamber of Commerce gathering, city staff)

From Long List, We Screen...

- Screening helps us:
 1. Form a feasible set of project ideas to move into evaluation
 2. Organize project ideas into different “bins”
 - Project ideas to be evaluated for the TSP
 - Project ideas to be forwarded to others:
 - Other agencies
 - Other departments within the City of Tualatin
 - Projects that do not address a need and/or are not feasible to construct

Tualatin's TSP Process

STEP 1

Identify Needs and Opportunities

Develop Goals and Objectives

Survey Existing Conditions

Forecast Future Conditions

** Public Involvement Activities Included*

STEP 2

Develop and Evaluate Solutions

Create a Long List of Potential Solutions

Screen/Evaluate How Ideas Help Meet Goals and Objectives

** Public Involvement Activities Included*

STEP 3

Make Recommendations

Prepare Draft Project Recommendations

Refine Project Recommendations

Prioritize Project Recommendations

** Public Involvement Activities Included*

STEP 4

Create and Adopt the Plan

Develop a Draft TSP

Adopt the Final TSP

** Public Involvement Activities Included*

We are here



What is a Feasible Idea?

- Our screening questions:
 1. Is the project **transportation related**, and does it address a known transportation deficiency or opportunity?
 2. Is it within the City? Is it **within the city's control** to implement?
 3. Is it **technically feasible** to build this project?*
 4. Is the idea **cost prohibitive**? Are there more cost effective ways of addressing the same need?

* We used basic engineering design requirements to assess technical feasibility. Projects were removed only if they were nowhere close to meeting design requirements or were thought to make the identified need *worse* than forecasted under the no build analysis.

The Screening Process

- Second round of working group meetings (March/April)
- Participants were asked to provide input on feasibility of project ideas
 - Red - not feasible
 - Yellow - not sure and/or have questions
 - Green - feasible - move forward into evaluation
- Comments recorded for all red cards
- Engineering team used working group notes to assess feasibility of project ideas



Screening Results

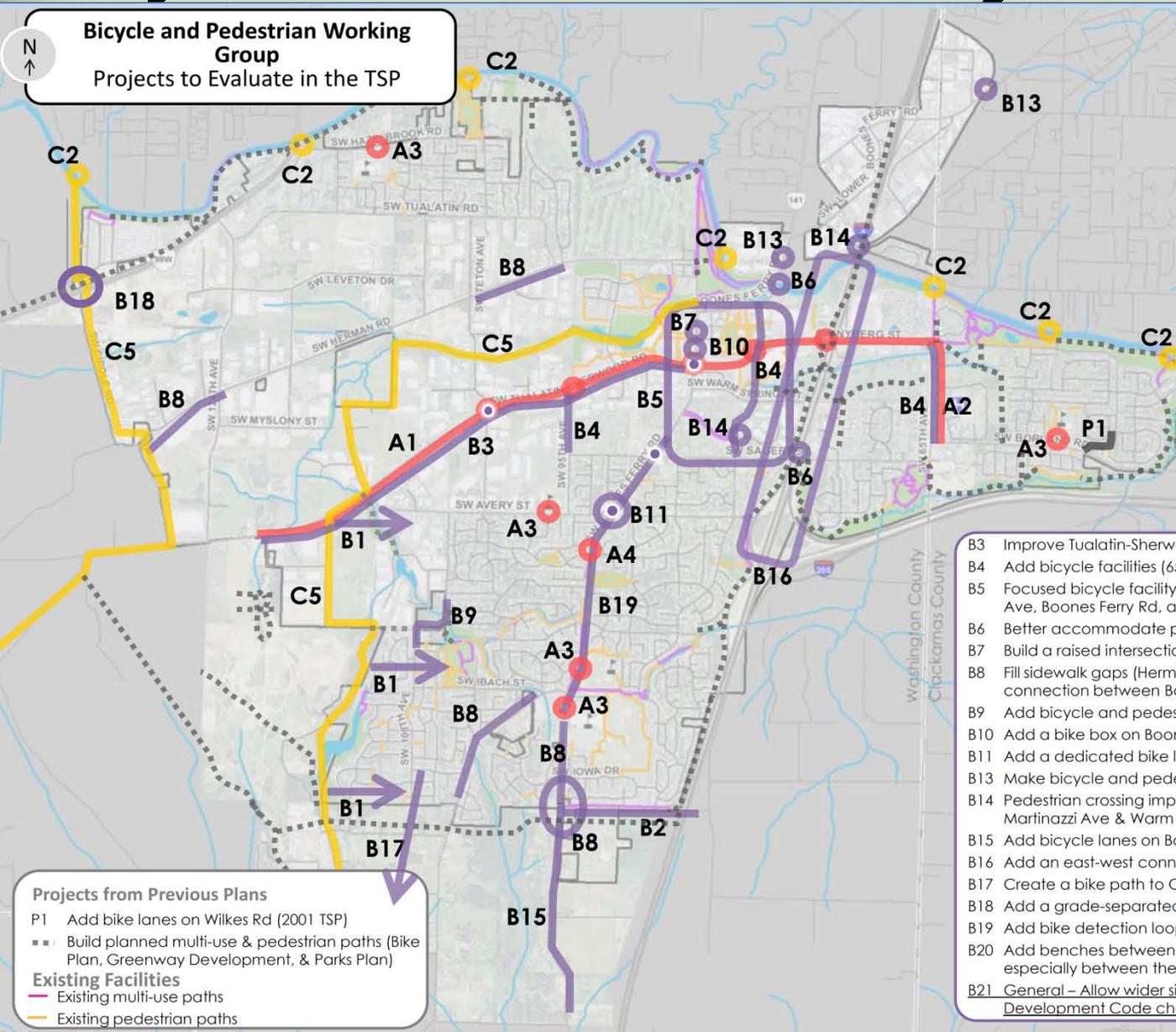
By Working Group
Topic Area



Bicycle/Pedestrian

Bicycle and Pedestrian - Projects to Evaluate

Bicycle and Pedestrian Working Group Projects to Evaluate in the TSP



Safety-Focused Ideas

- A1 Add pedestrian-focused crossing improvements at key crossings of Tualatin-Sherwood Rd & Nyberg St
- A2 Separate walking/bike area with plantings or barriers on 65th Ave between Borland Rd and Nyberg Ln including adding bicycle/pedestrian facilities on the bridge at 65th Ave
- A3 Improve visibility and safety near schools at crosswalks
- A4 Improve visibility at crosswalk at Siletz Dr & Boones Ferry Rd
- A6 General - Add wayfinding signs for Safe Routes to School

Trail-Focused Ideas

- C2 Build bridges for pedestrian and bicycle access over the Tualatin River
- C4 Create a system of bicycle boulevards (Bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)
- C5 Tonquin Trail

Facility-Focused Ideas

- B1 Connect Tonquin trail with neighborhoods
- B2 Add sidewalks & bicycle lanes on Norwood Rd
- B3 Improve Tualatin-Sherwood Rd to make it more bicycle and pedestrian friendly
- B4 Add bicycle facilities (65th Ave near the hospital, 95th Ave and Martinazzi Ave)
- B5 Focused bicycle facility improvements in heart of downtown, including Martinazzi Ave, Boones Ferry Rd, and Tualatin-Sherwood Rd
- B6 Better accommodate pedestrians on the bridges
- B7 Build a raised intersection at Seneca and Nyberg (crossing Boones Ferry Rd)
- B8 Fill sidewalk gaps (Herman Rd, Grahams Ferry Rd, Boones Ferry Rd, and the connection between Boones Ferry Rd and Norwood Rd)
- B9 Add bicycle and pedestrian facilities on 105th Ave, Blake St, 108th Ave
- B10 Add a bike box on Boones Ferry Rd near the Sweek House
- B11 Add a dedicated bike lane through intersection at Avery St & Boones Ferry Rd
- B13 Make bicycle and pedestrian facility improvements at railroad crossings
- B14 Pedestrian crossing improvements (Tualatin View Apartments, Boones Ferry Rd; Martinazzi Ave & Warm Springs St)
- B15 Add bicycle lanes on Boones Ferry Rd to Day Rd
- B16 Add an east-west connection across I-5
- B17 Create a bike path to Old Town Sherwood as this area develops
- B18 Add a grade-separated crossing over 99W
- B19 Add bike detection loops at major intersections (indicated by ●)
- B20 Add benches between residential and commercial areas throughout the city, especially between the Heritage Center and Haggens (not on map)
- B21 General - Allow wider sidewalks for strolling and outdoor cafes. (Potential Tualatin Development Code change)

Projects from Previous Plans

- P1 Add bike lanes on Wilkes Rd (2001 TSP)
- Build planned multi-use & pedestrian paths (Bike Plan, Greenway Development, & Parks Plan)

Existing Facilities

- Existing multi-use paths
- Existing pedestrian paths

Bicycle and Pedestrian - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A5	Improve lighting at Jurgens Rd and Hazelbrook Rd	1 (transportation related, addressing an identified need)	Forward to engineering
B1	Add a pedestrian overcrossing between the Community park and Tualatin Commons	1 (transportation related), 4 (cost)	Consider upon future development
C3	Add a pedestrian shortcut between Hazelbrook Rd and 99W	1 (addressing an identified need)	Consider if a future development occurs at this location



Bicycle/Pedestrian

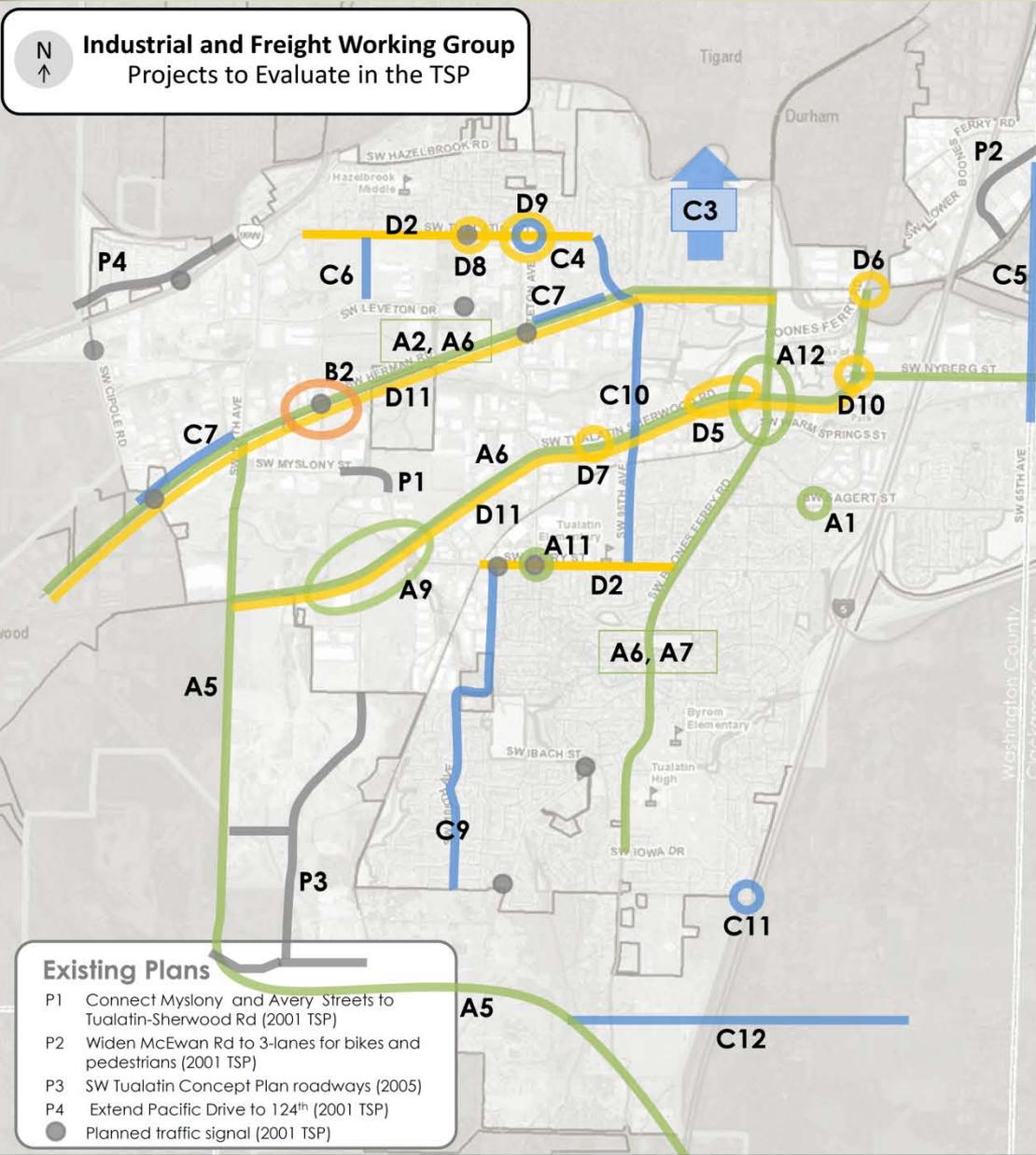
Discussion



Industrial and Freight

Industrial and Freight - Projects to Evaluate

Industrial and Freight Working Group Projects to Evaluate in the TSP



Congestion-Focused Ideas

- A1 Add a signal or roundabout at Sager St and Martinazzi Ave
- A2 Divert truck traffic from Tualatin Rd to Herman Rd
- A5 Extend 124th Ave and connect to I-5 south of Tualatin
- A6 Provide coordinated signal timing and access management along major arterials. Restrict trucks to right lane. Widen travel lanes.
- A7 Widen Boones Ferry Rd. Remove right turn light at Tualatin-Sherwood Rd. Remove right turn light in the northbound direction on Boones Ferry Rd.
- A9 Improvements to help mobility of through-traffic (Tualatin-Sherwood Rd)
- A11 Improve turn radius at Avery St and Teton Ave, look at congestion
- A12 Synchronize turn signals to/from Boones Ferry Rd to Tualatin-Sherwood Rd; coordinate with the train signal

Transit-Focused Ideas

- B1 General - Add Saturday, Sunday, late evening transit shuttle
- B2 Add rail station with easy offload and access for industry
- B3 General - Provide local loop bus

Connectivity-Focused Ideas

- C3 North-south connection to Hall Blvd. Look for ways to provide north-south connectivity over Tualatin River for vehicles
- C4 Add a left turn from Teton Ave to Tualatin Rd
- C5 Extend 65th Ave north
- C6 Improve 115th Ave
- C7 Improve cross-section on Herman Rd
- C9 Balance the needs of neighborhood with local truck movement along 108th/105th Aves. Consider removing trucks/adding truck info signs.
- C10 Extend 95th Ave north to Tualatin Rd
- C11 Add an interchange on I-5 at Norwood Rd
- C12 Create an east/west connection across I-5 (near Greenhill Rd)

Other Ideas

- D1 General - Coordinate freight receiving/shipping times
- D2 Add vision & sound walls; reduce cut-through traffic.
- D3 General - Improve safety and reduce congestion by education and incentivizing telecommuting
- D5 Add a lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Add traffic camera for red light violations.
- D6 Improve signs to direct traffic to correct street
- D7 Add traffic signal at 97th Ave and Tualatin-Sherwood Rd
- D8 Improve visibility, restrict left turns from 108th Ave onto Tualatin Rd
- D9 Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd
- D10 Improve Tualatin-Sherwood Rd/Martinazzi Ave signal timing/add a red light camera
- D11 Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd
- D12 General - Make "Truck Route" signs larger

Existing Plans

- P1 Connect Myslony and Avery Streets to Tualatin-Sherwood Rd (2001 TSP)
- P2 Widen McEwan Rd to 3-lanes for bikes and pedestrians (2001 TSP)
- P3 SW Tualatin Concept Plan roadways (2005)
- P4 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal (2001 TSP)

Industrial and Freight - Ideas Screened Out

ID	Project Idea	Based on what screening question?	Action to be taken
A3	Provide an undercrossing for Nyberg through traffic under I-5 to avoid signal/conflicts. Create an urban interchange	2 (ability to implement), 4 (cost)	None
A4	Reconsider the connection between 99W and Tualatin-Sherwood Rd (note: in Sherwood)	2 (ability to implement)	Forward to City of Sherwood
A8	Close 90th Ave to 18-wheel trucks	1 (addressing a transportation problem)	Reassess during review of functional classification plan
A10	Create a loop road around central downtown, with a turn radius that works for trucks	1 (addressing a transportation problem), 4 (cost)	None
B3	General – Provide bus from Clackamas MAX stop to WES for employees	1 (addressing a transportation problem)	Forward to TriMet

Industrial and Freight - Ideas Screened Out (cont'd)

ID	Project Idea	Based on what screening question?	Action to be taken
C1	Add connection and entry to I-205	3 (technical feasibility)	None
C2	Provide direct connection between Herman Rd & Boones Ferry Rd. Consider a tunnel	2 (ability to implement), 4 (cost)	None
C1	Add interchange at Norwood Road	3 (technical feasibility)	None
D4	Move industrial area to the SW area, change to multi-family residential, or buffer existing neighborhood better from industrial area	1 (transportation-related)	Forward to Planning



Industrial and Freight

Discussion

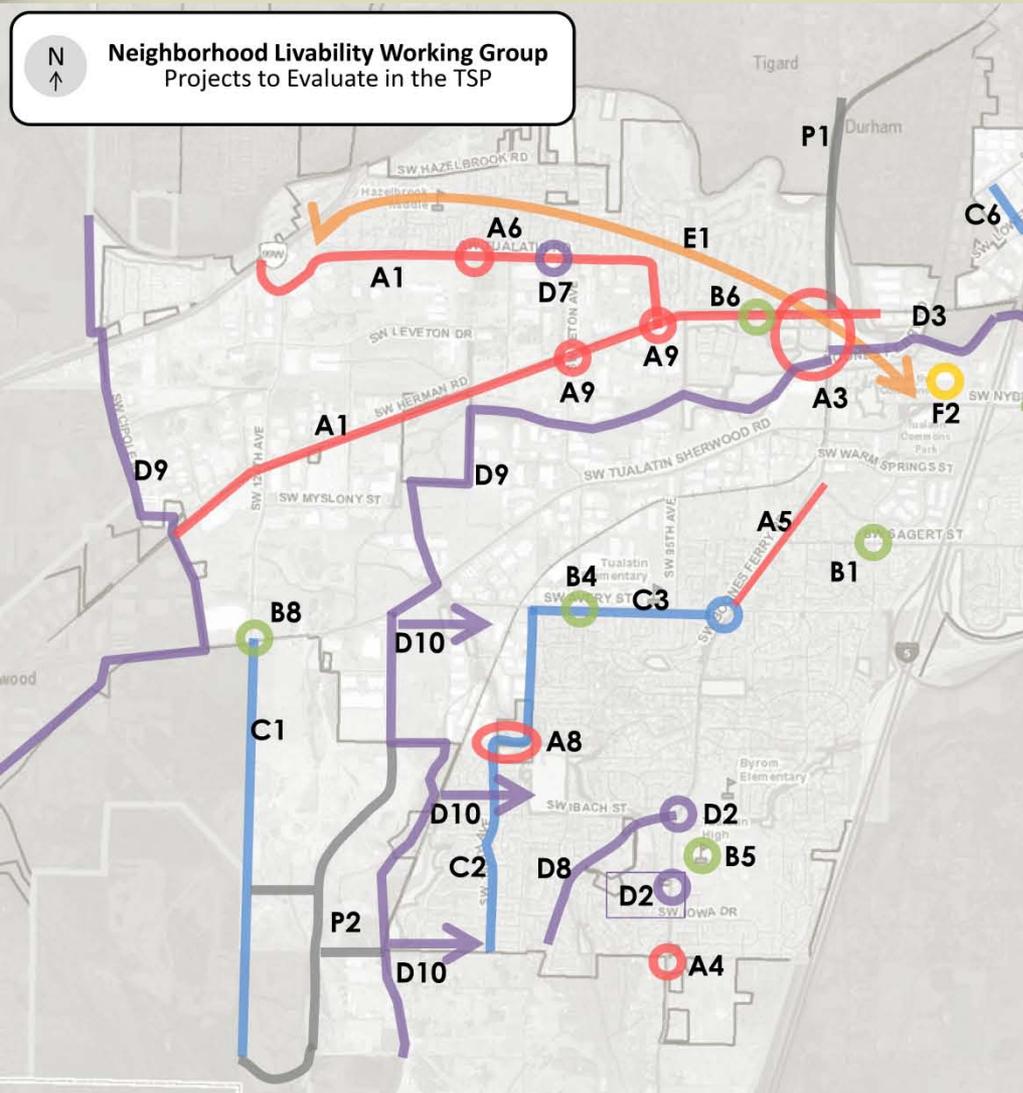


Neighborhood Livability

Neighborhoods - Projects to Evaluate



Neighborhood Livability Working Group Projects to Evaluate in the TSP



Safety-Focused Ideas

- A1 Discourage/restrict through & truck traffic along Tualatin Rd while encouraging a shift to Herman Rd & Leveton Rd. Make residential access along Tualatin Rd easier.
- A3 Reroute school buses away from Tualatin Community Park and two railroad crossings
- A4 Add a roundabout at Boones Ferry Rd & Norwood Rd
- A5 Explore ways to make Boones Ferry Rd more pedestrian-friendly, including the creation of one consistent speed limit, without widening
- A6 Improve intersection at 108th Ave and Tualatin Rd
- A8 Reduce speed, add sidewalks and bike lanes on Blake St curves. Possibly add trail through wooded area.
- A9 Eliminate free right turns

Congestion-Focused Ideas

- B1 Add a signal or roundabout at Sagert St and Martinazzi Ave
- B2 Add a dedicated right turn lane into Nyberg Woods Apartments
- B3 Realign Sagert St and Borland Rd intersection (roundabout or signal)
- B4 Improve intersection at Avery St and Teton Ave
- B5 Address congestion caused by high school
- B6 Adjust signal timing to reflect traffic needs
- B8 Add right turn lane from Tualatin-Sherwood Rd to northbound 124th Ave

Connectivity-Focused Ideas

- C1 Connect 124th Ave to Tonquin Rd
- C2 Balance neighborhood needs with trucks along 108th/105thAves. Consider disallowing trucks/truck info signs. Add traffic calming.
- C3 Balance the needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school
- C6 Create a street between Boones Ferry Rd and Bridgeport Rd

Bicycle/Pedestrian-Focused Ideas

- D2 Consider pedestrian islands on Boones Ferry Rd, near Byrom Elementary and Tualatin High schools
- D3 Provide a multi-use path along the river
- D4 Connect sidewalk on east side of 65th Ave
- D5 Repair gap in sidewalk on the south side of Borland Rd
- D6 Add multi-use path as part of Tualatin Trail
- D7 Provide focused pedestrian crossing improvements (may need signal)
- D8 Add bike facilities & continuous sidewalks; reduce speed limit
- D9 Build the Tonquin Trail
- D10 Provide neighborhood connections to Tonquin Trail
- D11 Connect to Tualatin Path
- D12 General – add benches around the city for pedestrians, especially between Heritage Center and Haggens
- D13 ~~General – Provide 3 loop walking paths that connect all Tualatin Neighborhoods. Create a system of bicycle boulevards (bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)~~

Transit-Focused Ideas

- E1 Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

Other Ideas

- F2 Consider changing “no right on red” sign. Remove northbound right turn light in Boones Ferry Rd

Existing Plans

- P1 Extend Boones Ferry Rd to Hall (from the 2001 TSP)
- P2 SW Tualatin Concept Plan roadways (2005)

Neighborhood Livability - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A2	Improve lighting on Hazelbrook Rd	1 (transportation-related)	Forward to Engineering
A7	Improve sight distance and reduce speeds at Boones Ferry Rd and Arapaho Rd	1 (does not address a transportation problem)	Forward to Engineering
A10	Require a stop before vehicles turn right onto Boones Ferry Rd between Mohawk St and Greenhill Lane	3 (technical feasibility)	None
B7	Add two right turns onto I-5 northbound from Nyberg St	2 (ability to implement)	Forward to ODOT
C4	Add I-5 Interchange with Norwood Rd	3 (technical feasibility)	None
C5	Limit Siletz to exit only at Boones Ferry Rd and 105 th Ave to minimize cut-through traffic.	1 (not included in TSP analysis)	Revisit upon completion of Boones Ferry Road analysis and recommendations
D1	Consider a pedestrian overcrossing on Boones Ferry Rd	4 (cost)	Assess more effective, lower cost solutions to pedestrian safety

Neighborhood Livability - Ideas Screened Out (Cont.)

ID	Project	Based on what screening question?	Action to be taken
F1	Consider ways to lessen noise from 99W and I-5 on nearby residences	1 (transportation related)	Forward to Engineering
F3	Intersection of Ibach/Grahams Ferry is confusing; rename road or better signs; need better lighting	1 (transportation related, addressing a transportation problem)	Forward to Engineering
F4	General – Add gateway signs to announce CIOs	1 (transportation related)	Forward to CIOs
F5	Move industrial area to the SW area (no direct truck route), change to multifamily residential, or buffer existing neighborhood better from industrial area	1 (transportation related)	Forward to Planning
F6	Create small, neighborhood commercial for residents to walk to	1 (transportation related)	Forward to Planning



Neighborhood Livability

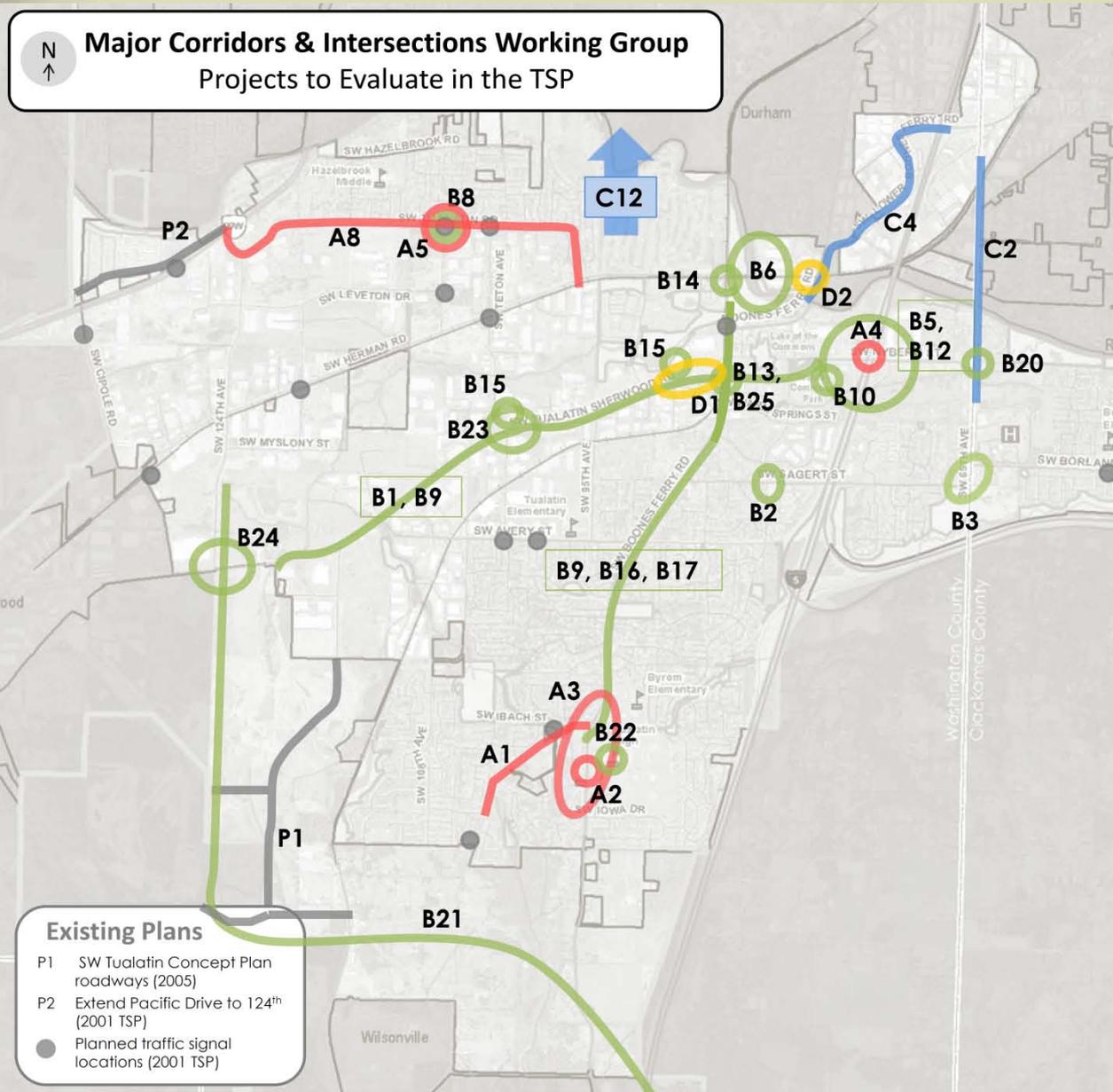
Discussion



Major Corridors and Intersections

Major Corridors - Projects to Evaluate

Major Corridors & Intersections Working Group Projects to Evaluate in the TSP



Existing Plans

- P1 SW Tualatin Concept Plan roadways (2005)
- P2 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal locations (2001 TSP)

Safety-Focused Ideas

- A1 Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd
- A2 Add traffic signal at Tualatin High School
- A3 Consistent speed zones for both Tualatin High School & Byrom Elementary School
- A4 Raise the southbound off-ramp to allow a better view of traffic on
Improve the sight distance at the I-5-Nyberg Rd interchange
- A5 Add traffic signal on Tualatin Rd at 108th Ave or on Teton Ave
- A6 General – consistent use of yellow turn signals on all traffic signals
- A8 Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd. Make residential access easier.

Congestion-Focused Ideas

- B1 Widen Tualatin-Sherwood Rd
- B2 Signal or roundabout at Sagert St and Martinazzi Ave
- B3 Realign Sagert St/Borland Rd intersection
- B5 Restrict right turn on red at Nyberg Interchange
- B6 Rethink access in vicinity of Tualatin Community Park
- B8 Prohibit left turns out of 108th Ave or remove trees in the southwest corner
- B9 Coordinate signal timing on Boones Ferry Rd and Tualatin-Sherwood Rd; widen Boones Ferry Rd
- B10 Redesign the intersection at the Fred Meyer (from Nyberg Rd)
- B12 Make two right turn lanes from I-5 north onto Nyberg Rd
- B13 Extend the northbound left turn lane and create a southbound right turn lane on Boones Ferry Rd at Tualatin-Sherwood Rd to reduce backup from WES train; add red light cameras
- B14 Reconfigure Boones Ferry Rd at Tualatin Rd
- B15 Add a 4-way stop by 90th Ave at Kaiser
- B16 Add bus pullouts on Boones Ferry Rd
- B17 Widen Boones Ferry Rd
- B20 Roundabout at Nyberg Rd/65th Ave; keep Nyberg Rd 2 lanes
- B21 Extend 124th Ave and connect to I-5 and Tonguin Rd
- B22 Address congestion caused by high school
- B23 Add a dedicated right turn lane on Teton Ave at Tualatin-Sherwood Rd
- B24 Add right turn lane on Tualatin-Sherwood Rd at 124th Ave

Connectivity-Focused Ideas

- C2 Extend 65th Ave north
- C4 Improve traffic flow on Lower Boones Ferry Rd near Bridgeport Village into downtown Tualatin
- C12 Extend Boones Ferry Rd to Hall Blvd Look for ways to provide north-south connectivity over Tualatin River for vehicles

Other Ideas

- D1 Add lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Install traffic camera for signal violations.
- D2 Better signs needed to direct traffic to correct street

Major Corridors - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A7	Improve sight distance and reduce speeds at Boones Ferry Rd and Arapaho Rd	1 (does not address a transportation problem)	Forward to Engineering
B4	Consider a traffic loop in downtown (one way, right turn only)	1 (addressing a transportation problem), 4 (cost)	Look at other options to address downtown circulation
B7	Consider removing ramp signals at Nyberg interchange	1 (does not address a transportation problem), 2 (Ability to Implement)	Look at other options to address congestion at Nyberg interchange
B1	Consider redesigning the Nyberg interchange into a full cloverleaf	2 (ability to implement), 4 (cost)	Look at other options to address congestion at Nyberg interchange
B1	Add a southbound left turn and right turn lane to Nyberg interchange	1 (does not address a transportation problem), 4 (cost)	Look at other options to address congestion at Nyberg interchange
B1	Restrict trucks to right lane, widen travel lanes	2 (ability to implement)	None

Major Corridors - Ideas Screened Out (cont'd)

ID	Project	Based on what screening question?	Action to be taken
B25	Limit access and grade separate the intersection of Tualatin-Sherwood Rd and Boones Ferry Rd	1 (addressing a transportation problem), 4 (cost)	None
C3	Construct a new road between Tualatin High School and Byrom Elementary School	1 (does not address a transportation problem)	Look at other options to address school congestion
C5	Improve intersection at 99W and Tualatin Rd	1 (does not address a transportation problem)	None
C6	Extend Tualatin Rd to Lower Boones Ferry Rd	3 (technical feasibility)	None
C8	Add on/off ramps from I-5 to Norwood Rd	3 (technical feasibility)	None
C9	Widen Sagert St to 2 lanes each way with pedestrian median	1 (does not address a transportation problem)	None

Major Corridors - Ideas Screened Out (cont'd)

ID	Project	Based on what screening question?	Action to be taken
C10	Extend Helenius Road (Grahams Ferry Rd to Norwood Rd)	3 (technical feasibility)	None
C11	Create street grid in Bridgeport	1 (does not address a transportation problem), 2 (ability to implement)	None
D3	Tualatin-Sherwood Rd/Martinazzi Ave – Adjust signal timing, add a red light camera	2 (ability to implement)	Forward to Washington County – potential project already underway
D4	Adjust signal Timing	2 (ability to implement)	Forward to Washington County – potential project already underway



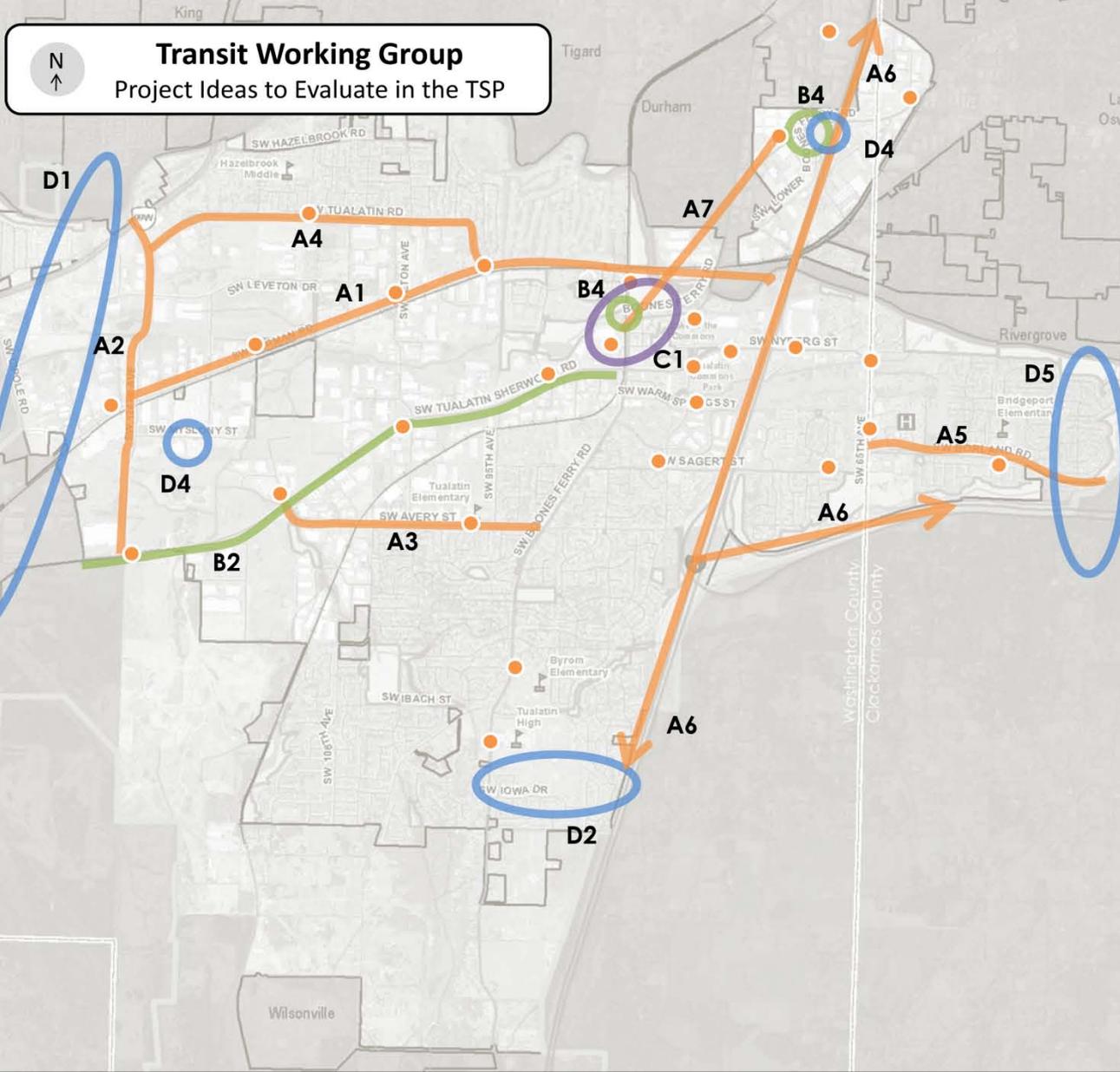
Major Corridors and Intersections

Discussion



Transit

Transit - Projects to Evaluate



Bus Service-Focused Ideas

- A1 Provide bus transit service on Herman Road
 - A2 Provide bus transit service on 124th Street
 - A3 Provide bus transit service on Avery Street
 - A4 Provide bus transit service on Tualatin Road between downtown and 99W
 - A5 Extend bus service to east Tualatin
 - A6 Improve bus service between Tualatin and Salem
 - A7 Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
 - A8 Provide a loop bus route around the city*
 - A10 Expand existing on-call shuttle and charge fares*
 - A12 General – need extended service hours for all transit*
 - A13 General – use more energy efficient buses*
 - A14 Coordinate bus schedules with WES schedule*
 - A16 Add stops on higher-volume routes*
- Potential bus stop locations connecting major employers and activity centers

*not shown on map

Rail Service-Focused Ideas

- B2 Provide rail or high capacity bus transit service on Tualatin-Sherwood Road (towards Sherwood)
- B4 Build elevated pedestrian bridge to connect park-and-ride with shopping at Bridgeport Village
- B10 General – Add more spaces for bicycles on WES trains*

Land Use-Focused Ideas

- C1 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Park-and-Ride-Focused Ideas

- D1 Look for potential park-and-ride locations in west Tualatin
- D2 Look for potential park-and-ride locations in south Tualatin
- D3 Add parking capacity at Tualatin Park-and-Ride (near Bridgeport Village)
- D4 Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots
- D5 Add a park-and-ride location in east Tualatin

Transit - Ideas Screened Out

ID	Project	Screening Question	Moving forward into evaluation?
A9	Add bus line from Yamhill Transit District to WES	2 (Ability to Implement)	Forward to Yamhill Transit District and TriMet
A11	General –leave TriMet service area	3 (Technical Feasibility)	Assess ability to improve transit service in Tualatin first, and then reconsider the need for this idea
A15	Provide transit service to Lake Oswego	1 (Addressing a need)	None
B1	Eliminate freight rail trips during rush hours, to avoid interrupting bus and WES service	2 (Ability to implement)	Participate in future regional discussions around increasing WES frequency (B3)
B3	Increase WES frequency	2 (Ability to implement)	Participate in future regional discussions around increasing WES frequency
B5	Extend WES to Salem	2 (Ability to implement)	Participate in future regional discussions on this topic

Transit - Ideas Screened Out (Cont.)

ID	Project	Screening Question	Moving forward into evaluation?
B6	Oregon Passenger Rail between Portland and Eugene	2 (Ability to implement)	Participate in future regional discussions on this topic
B7	SW corridor High Capacity Transit	2 (Ability to implement)	Participate in ongoing regional discussions on this topic
B8	Add a WES Station in south Tualatin	1 (Addressing a need)	Reconsider upon future buildout of Basalt Creek area
B9	General – Add more spaces for bicycles on WES trains	2 (Ability to implement)	Forward to TriMet
B11	Follow the existing rail line with High Capacity Transit	2 (Ability to implement)	Forward to Metro for ongoing SW Corridor and other regional transit discussions



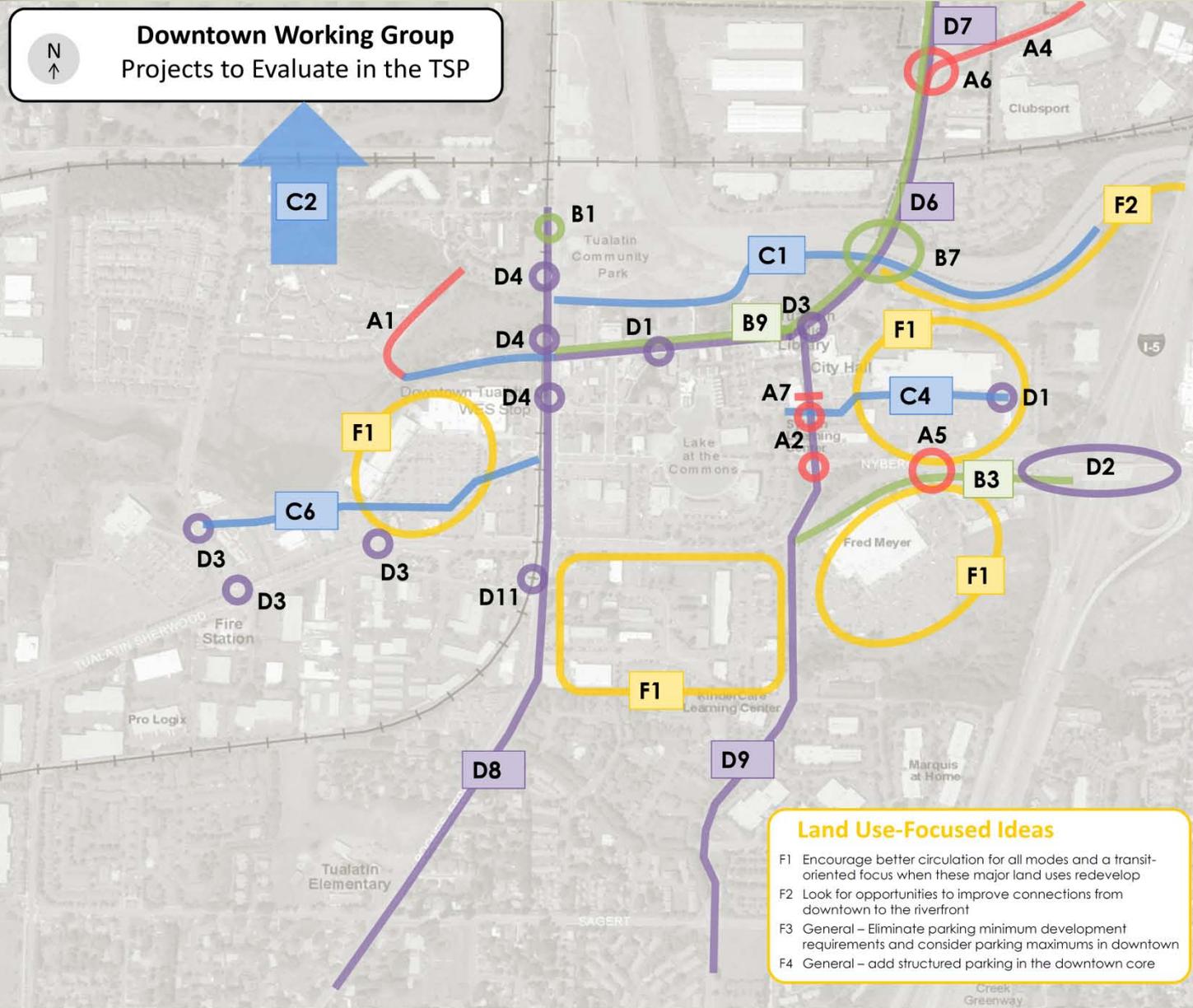
Transit

Discussion



Downtown

Downtown - Projects to Evaluate



- ### Safety-Focused Ideas
- A1 Upgrade bridge surface and improve illumination along path near Hedges Creek
 - A2 Consider raised intersections for pedestrians at Seneca St and Nyberg St
 - A4 Reduce speeds near Bridgeport Village
 - A5 Redesign Fred Meyer & Kmart intersection – upgrade the pedestrian connection
 - A6 Add a roundabout at Lower Boones Ferry Rd and Boones Ferry Rd
 - A7 Add a pedestrian island on Martinazzi Ave north of Seneca St

- ### Congestion-Focused Ideas
- B1 Improve circulation into and out of the park
 - B3 Add an eastbound lane on Tualatin-Sherwood Rd from Martinazzi Ave to I-5
 - B7 Replace/widen bridge on Boones Ferry Rd
 - B9 Widen Boones Ferry Rd to 5 lanes

- ### Connectivity-Focused Ideas
- C1 Build a trail from Boones Ferry Rd to the downtown core along the river to the Tualatin River Greenway
 - C2 Look for ways to provide north-south connectivity over Tualatin River for vehicles
 - C4 Create a grid system near the Kmart, connect to Seneca St
 - C5 General-improve street connectivity in downtown
 - C6 Create a public road between Boones Ferry Rd and SW 90th Ave

- ### Bicycle/Pedestrian-Focused Ideas
- D1 Redesign pedestrian crossing, consider flashing lights
 - D2 Upgrade Nyberg interchange to improve the crossing experience for bicyclists
 - D3 Optimize intersections to reduce conflicts between cars and pedestrians (Tualatin-Sherwood Rd & Martinazzi Ave and Boones Ferry Rd)
 - D4 Add pedestrian crossings along Boones Ferry Rd
 - D6 Improve sidewalks and bicycle lanes Boones Ferry Rd
 - D7 Improve bicycle and pedestrian facilities near Bridgeport Village
 - D8 Provide "Share the Road" signage and/or other visual cues to motorists to accommodate bicycles on Boones Ferry Rd
 - D9 Add bicycle lane or "Share the Road" signs on Martinazzi Ave
 - D10 General – coordinate traffic signal timing to accommodate pedestrians in downtown
 - D11 Focused pedestrian crossings

- ### Land Use-Focused Ideas
- F1 Encourage better circulation for all modes and a transit-oriented focus when these major land uses redevelop
 - F2 Look for opportunities to improve connections from downtown to the riverfront
 - F3 General – Eliminate parking minimum development requirements and consider parking maximums in downtown
 - F4 General – add structured parking in the downtown core

Downtown - Ideas Screened Out

ID	Project	Based on what screening question?	Action to be taken
A3	Add a grade separated railroad crossing on Tualatin-Sherwood Rd	1 (addressing a transportation problem), 4 (cost)	None
B2	Provide secondary exit from park, and provide additional parking	3 (technical feasibility)	Look at other options to improve circulation at park
B4	Add a travel lane on I-5 northbound (between Tualatin and OR 217)	2 (ability to implement)	Forward to ODOT
B5	Create a one-way circulator loop roadway around downtown	1 (addressing a transportation problem), 4 (cost)	Look at other options to address downtown circulation
B6	Reduce ambient noise along Boones Ferry Rd in downtown	1 (transportation-related)	None

Downtown - Projects to Screen (Cont.)

ID	Project	Based on what screening question?	Action to be taken
B8	Add HOV lanes on Tualatin-Sherwood Rd	2 (ability to implement), 3 (technical feasibility)	None
C3	Connect Nyberg Rd through the Commons	1 (addressing a transportation need)	Look at other options to address downtown circulation
C7	Extend Lower Boones Ferry Rd across Tualatin River	3 (technical feasibility)	None
D5	Create a pedestrian skybridge that connects downtown retail businesses and the park	1 (transportation-related), 4 (cost)	Consider upon future development



Downtown

Discussion

In Summary

- We started with **248** project ideas
- Of the **60** ideas proposed to be screened out...
 - 19 to be forwarded to other agencies or City departments
 - 6 to be reconsidered again in the future
 - 6 will be considered as part of regional conversations
 - 4 will be woven into other project ideas being evaluated

Next Steps

No.	Action	Timing
1.	Discuss results of TTF screening process with City Council	April 23
2.	Evaluate feasible project ideas	Late April through mid May
3.	Discuss evaluation results with Task Force	May 24
4.	Hold 3 rd round of working groups to develop preliminary recommendations	June 4 – June 14
5.	Discuss preliminary recommendations with Task Force	June 21
6.	Public outreach on preliminary recommendations	Late June through August

Next Steps

STEP 1

Identify Needs and Opportunities

Develop Goals and Objectives

Survey Existing Conditions

Forecast Future Conditions

** Public Involvement Activities Included*

Our Next Meeting will Focus on Evaluation Results

STEP 2

Develop and Evaluate Solutions

Create a Long List of Potential Solutions

Screen/Evaluate How Ideas Help Meet Goals and Objectives

** Public Involvement Activities Included*

Our June Meeting will Focus on Preliminary Recommendations

STEP 3

Make Recommendations

Prepare Draft Project Recommendations

Refine Project Recommendations

Prioritize Project Recommendations

** Public Involvement Activities Included*

STEP 4

Create and Adopt the Plan

Develop a Draft TSP

Adopt the Final TSP

** Public Involvement Activities Included*



Thank You

Tualatin Transportation System Plan, Preliminary Evaluation Results

PREPARED FOR: Tualatin Transportation Task Force

COPY TO: Kaaren Hofmann, City of Tualatin
Alice Rouyer, City of Tualatin
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Theresa Carr, CH2M HILL
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Kate Lyman, CH2M HILL
Alan Snook, DKS Associates

DATE: February 14, 2013

This memorandum summarizes the preliminary evaluation results of the Tualatin Transportation System Plan (TSP)'s feasible project ideas. It presents both the methodology used to perform the evaluation and the evaluation summary at a project goal level. Maps identifying the location of each project idea and next steps are also included.

The TSP's technical team reviewed each of the projects identified as feasible against a set of evaluation criteria. The evaluation criteria, nested into each project objective, and further nested within each project goal category, are quantitative or qualitative measures that help the team identify how well the project idea is at meeting the TSP's goals and objectives. These goals and objectives were created by the Transportation Task Force (TTF) and reviewed by the community, and accepted by City Council. There are seven goal categories:

1. Access/Mobility
2. Safety
3. Vibrant Community
4. Economy
5. Health/Environment
6. Equity
7. Ability to be Implemented

Ratings

Each project was evaluated against all evaluation criteria by one or more members of the project team, and reviewed by the project management team as a group. The scale used for the evaluation is as follows:

Evaluation Results Rating Scale

Rating	Description
●	The project idea addresses the criterion and/or makes substantial improvements in the criteria category
◐	The project idea partially addresses the criterion and/or makes some improvements in the criteria category
○	The project idea does not support the intent of and/or negatively impacts the criteria category
N/A	The project idea neither meets nor does not meet intent of criterion. The project idea has no effect, or criterion does not apply

The results of the preliminary evaluation are included by Working Group topic, which are:

- Bicycle and Pedestrian
- Downtown
- Industrial and Freight
- Major Corridors and Intersections
- Neighborhood Livability
- Transit

Scores for each individual project idea are included at the end of this memo. Cells highlighted in yellow indicate that the team recommends further analysis of this concept as part of a larger corridor or interchange assessment. Many project ideas spanned more than one topic area. Although concepts were reviewed only once, the evaluation results are reported under each Working Group topic area.

How will this Information be Used?

The focus of the May 24th TTF meeting will be to review the preliminary evaluation results. These will also be used as a basis for the third round of Working Group meetings, held in the first half of June. This next round of Working Group meetings will discuss the evaluations, discuss how well project ideas address identified needs and deficiencies, and prepare preliminary recommendations for the TSP. These project ideas will be organized into three categories:

1. What projects completely make sense and should become part of the TSP?
2. What projects do not make sense, and should not become a part of the TSP?
3. What projects need to be considered more, either in relation to different alternatives to address one problem, or in the context of how a corridor or segment operates as a whole.

The June 21 TTF meeting will review the developments from this third round of Working Group meetings, and preliminary recommendations will be forwarded to the community as a whole for review over the summer months. At this time the third category of ideas will be refined in more detail, with additional traffic or engineering analysis, and discussed with staff, reviewing agencies, and the community.



City of Tualatin

Preliminary Evaluation Results

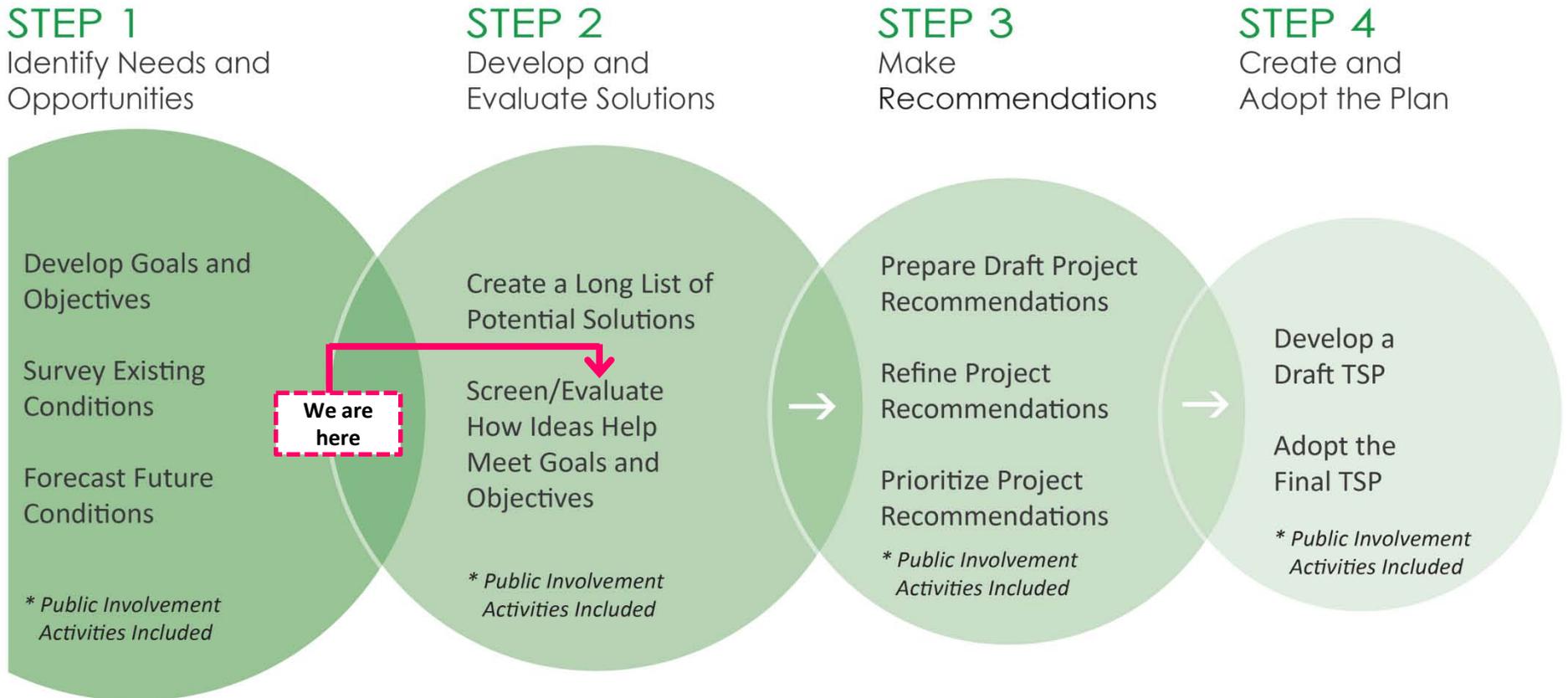
Tualatin TSP

Presentation to
Tualatin Transportation Task Force
May 24, 2012

Presentation Outline

- Overview of the Evaluation Process
- Highlights by Working Group Topic Area
 - Bicycle and Pedestrian
 - Downtown
 - Industrial and Freight
 - Major Corridors and Intersections
 - Neighborhood Livability
 - Transit
- Discussion
- Next Steps

Where We Are In the TSP Process



Progress Since our April 19th Meeting...

1. Discussed the project screening process with
 - ✓ City Council
 - ✓ Planning Commission
 - ✓ TPARK
2. Finalized our evaluation framework
3. Conducted a preliminary evaluation
4. Summarized the evaluation by criteria category

The Evaluation Process

- Reviews each feasible project idea against a set of evaluation criteria
- How well does the idea meet the goals and objectives of the TSP?

There are Seven Goal Categories

1. Access and Mobility
2. Safety
3. Vibrant Community
4. Economy
5. Health and the Environment
6. Equity
7. Ability to be Implemented

Our Evaluation Scale

Rating	Description
●	The idea addresses the criterion and/or makes substantial improvements in the criteria category
◐	The idea partially addresses the criterion and/or makes some improvements in the criteria category
○	The idea does not support the intent of and/or negatively impacts the criteria category
N/A	The criterion does not apply

How Will This Information Be Used?

- Preliminary review of evaluation results (tonight)
- Discussion of evaluation results (3rd round of working group meetings, early June)
- 3rd Round of Working Group meetings will also develop preliminary recommendations
 - What projects make sense, include in TSP?
 - What projects *don't* make sense, don't include in TSP?
 - What projects need additional analysis before we decide
- Preliminary recommendations discussion with Task Force (June 21st)
- Online open house on preliminary recommendations (July and August)

Areas for Additional Analysis

1. Tualatin-Sherwood Road Options
2. Nyberg Interchange Options
3. Boones Ferry Road Options
4. North to South Connectivity
5. Herman Road and Tualatin Road Options
6. Tualatin's Downtown Circulation



Evaluation Highlights

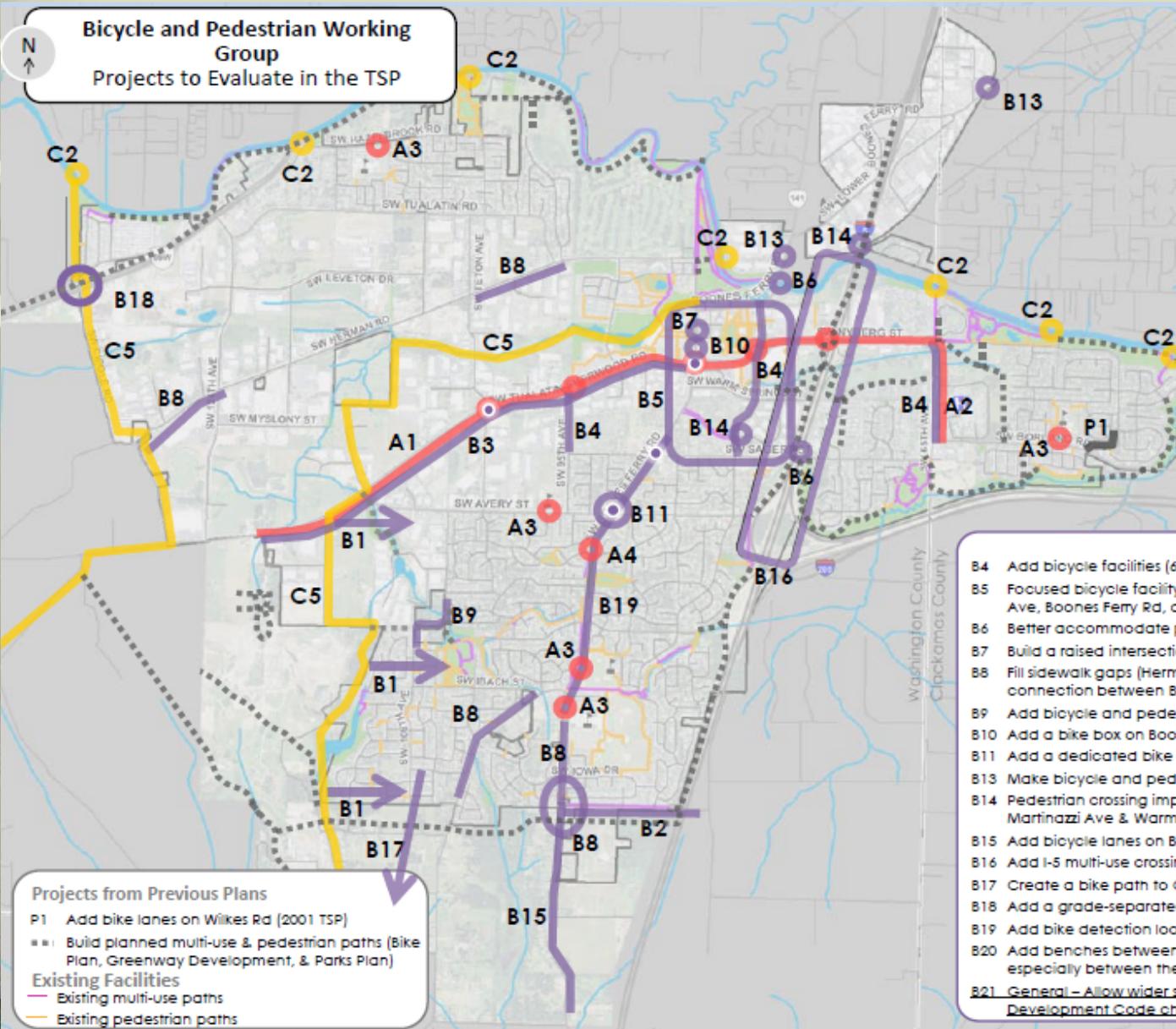
By Working Group
Topic Area



Bicycle/Pedestrian

Bicycle and Pedestrian

Bicycle and Pedestrian Working Group Projects to Evaluate in the TSP



Safety-Focused Ideas

- A1 Add pedestrian-focused crossing improvements at key crossings of Tualatin-Sherwood Rd & Nyberg St
- A2 Multi-use path between Borland Rd and Nyberg Ln
- A3 Improve visibility and safety near schools at crosswalks
- A4 Improve visibility at crosswalk at Siletz Dr & Boones Ferry Rd
- A6 General – Provide wayfinding signs for Safe Routes to School

Trail-Focused Ideas

- C2 Build bridges for pedestrian and bicycle access over the Tualatin River
- C4 Create a system of bicycle boulevards (Bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)
- C5 Tonquin Trail

Facility-Focused Ideas

- B1 Connect Tonquin trail with neighborhoods
- B2 Add sidewalks & bicycle lanes on Norwood Rd
- B3 Improve Tualatin-Sherwood Rd to make it more bicycle and pedestrian friendly
- B4 Add bicycle facilities (65th Ave near the hospital, 95th Ave and Martinazzi Ave)
- B5 Focused bicycle facility improvements in heart of downtown, including Martinazzi Ave, Boones Ferry Rd, and Tualatin-Sherwood Rd
- B6 Better accommodate pedestrians on the bridges
- B7 Build a raised intersection at Seneca and Nyberg (crossing Boones Ferry Rd)
- B8 Fill sidewalk gaps (Herman Rd, Grahams Ferry Rd, Boones Ferry Rd, and the connection between Boones Ferry Rd and Norwood Rd)
- B9 Add bicycle and pedestrian facilities on 105th Ave, Blake St, 108th Ave
- B10 Add a bike box on Boones Ferry Rd near the Sweek House
- B11 Add a dedicated bike lane through intersection at Avery St & Boones Ferry Rd
- B13 Make bicycle and pedestrian facility improvements at railroad crossings
- B14 Pedestrian crossing improvements (Tualatin View Apartments, Boones Ferry Rd; Martinazzi Ave & Warm Springs St)
- B15 Add bicycle lanes on Boones Ferry Rd to Day Rd
- B16 Add I-5 multi-use crossing – connect to existing multi-use paths
- B17 Create a bike path to Old Town Sherwood as this area develops
- B18 Add a grade-separated crossing over 99W
- B19 Add bike detection loops at major intersections (indicated by ●)
- B20 Add benches between residential and commercial areas throughout the city, especially between the Heritage Center and Haggens (not on map)
- B21 General – Allow wider sidewalks for strolling and outdoor cafes. (Potential Tualatin Development Code change)

Projects from Previous Plans

- P1 Add bike lanes on Wilkes Rd (2001 TSP)
- Build planned multi-use & pedestrian paths (Bike Plan, Greenway Development, & Parks Plan)

Existing Facilities

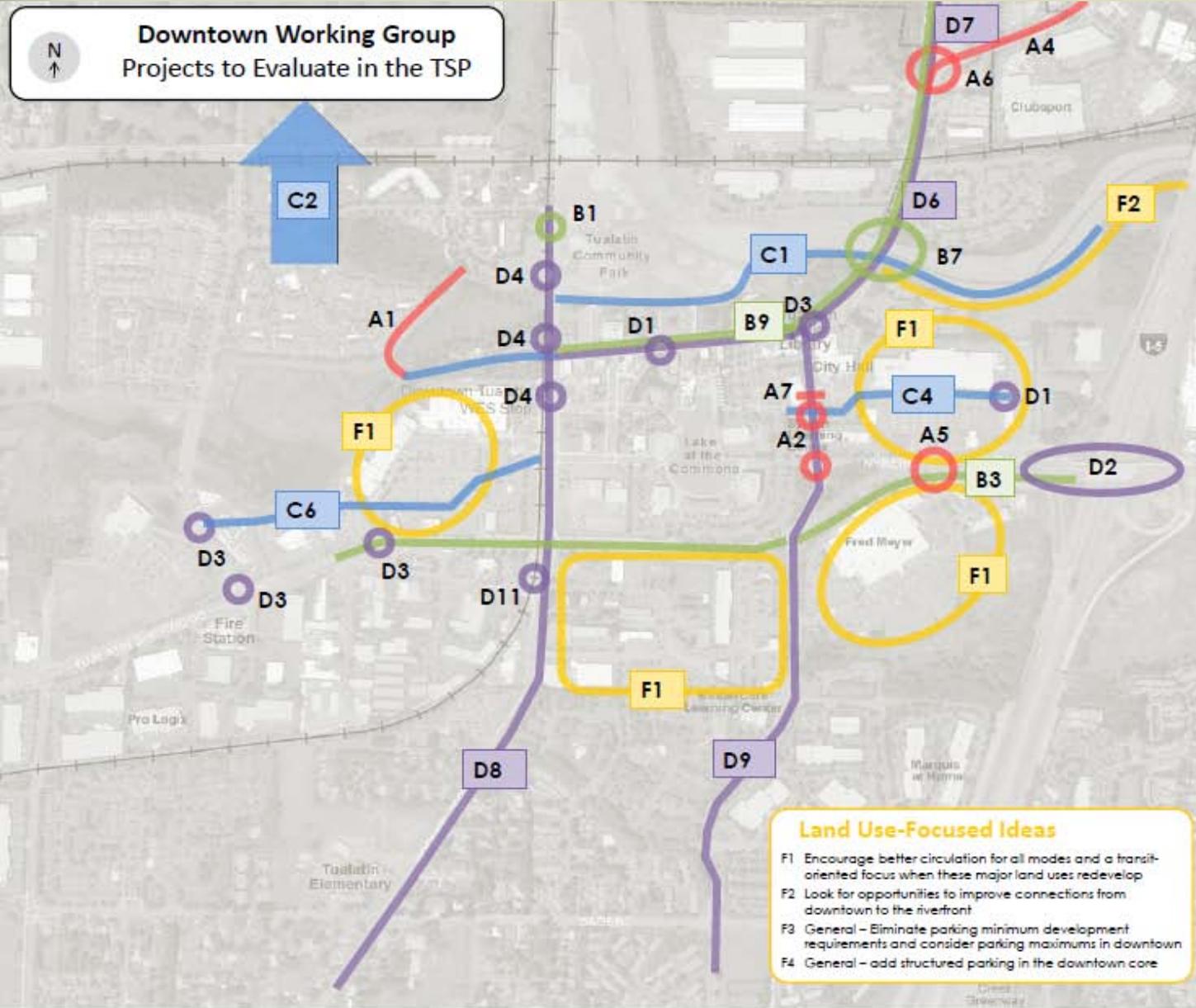
- Existing multi-use paths
- Existing pedestrian paths



Downtown

Downtown

**Downtown Working Group
Projects to Evaluate in the TSP**



- Safety-Focused Ideas**
- A1 Upgrade bridge surface and improve illumination along path near Hedges Creek
 - A2 Consider raised intersections for pedestrians at Seneca St and Nyberg St
 - A4 Reduce speeds near Bridgeport Village
 - A5 Redesign Fred Meyer & Kmart intersection – upgrade the pedestrian connection
 - A6 Add a roundabout at Lower Boones Ferry Rd and Boones Ferry Rd
 - A7 Add a pedestrian island on Martinazzi Ave north of Seneca St

- Congestion-Focused Ideas**
- B1 Improve circulation into and out of the park
 - B3 Add an eastbound lane on Tualatin-Sherwood Rd from Martinazzi Ave to I-5
 - B7 Replace/widen bridge on Boones Ferry Rd
 - B9 Widen Boones Ferry Rd to 5 lanes
 - B10 Widen Tualatin-Sherwood Rd through downtown

- Connectivity-Focused Ideas**
- C1 Build a trail from Boones Ferry Rd to the downtown core along the river to the Tualatin River Greenway
 - C2 Look for ways to provide north-south connectivity over Tualatin River for vehicles
 - C4 Create a grid system near the Kmart, connect to Seneca St
 - C5 General-improve street connectivity in downtown
 - C6 Create a public road between Boones Ferry Rd and SW 90th Ave

- Bicycle/Pedestrian-Focused Ideas**
- D1 Redesign pedestrian crossing, consider flashing lights
 - D2 Upgrade Nyberg interchange to improve the crossing experience for bicyclists
 - D3 Optimize intersections to reduce conflicts between cars and pedestrians (Tualatin-Sherwood Rd & Martinazzi Ave and Boones Ferry Rd)
 - D4 Add pedestrian crossings along Boones Ferry Rd
 - D6 Improve sidewalks and bicycle lanes Boones Ferry Rd
 - D7 Improve bicycle and pedestrian facilities near Bridgeport Village
 - D8 Provide signage and/or other visual cues to motorists to accommodate bicycles on Boones Ferry Rd
 - D9 Add bicycle lane or “Share the Road” signs on Martinazzi Ave
 - D10 General – coordinate traffic signal timing to accommodate pedestrians in downtown
 - D11 Focused pedestrian crossing on Boones Ferry Road at Tonka

- Land Use-Focused Ideas**
- F1 Encourage better circulation for all modes and a transit-oriented focus when these major land uses redevelop
 - F2 Look for opportunities to improve connections from downtown to the riverfront
 - F3 General – Eliminate parking minimum development requirements and consider parking maximums in downtown
 - F4 General – add structured parking in the downtown core



Industrial and Freight

Industrial and Freight

Existing Plans

- P1 Connect Myslony and Avery Streets to Tualatin-Sherwood Rd (2001 TSP)
- P2 Widen McEwan Rd to 3-lanes for bikes and pedestrians (2001 TSP)
- P3 SW Tualatin Concept Plan roadways (2005)
- P4 Extend Pacific Drive to 124th (2001 TSP)

Industrial and Freight Working Group Projects to Evaluate in the TSP

Congestion-Focused Ideas

- A1 Add a signal or roundabout at Sager St and Martinazzi Ave
- A2 Divert truck traffic from Tualatin Rd to Herman Rd
- A5 Extend 124th Ave and connect to I-5 south of Tualatin
- A6 Provide coordinated signal timing and access management along major arterials.
- A7 Remove northbound right turn light on Boones Ferry Rd
- A9 Improvements to help mobility of through-traffic (Tualatin-Sherwood Rd)
- A11 Improve turn radius at Avery St and Teton Ave, look at congestion
- A12 Synchronize turn signals to/from Boones Ferry Rd to Tualatin-Sherwood Rd; coordinate with the train signal
- A13 Widen Boones Ferry Rd through downtown

Transit-Focused Ideas

- B1 General - Add Saturday, Sunday, late evening transit shuttle
- B2 Add rail station with easy offload and access for industry
- B3 General - Provide local loop bus

Connectivity-Focused Ideas

- C3 Provide north-south vehicle connectivity over Tualatin River
- C4 Add a left turn from Teton Ave to Tualatin Rd
- C5 Extend 65th Ave north
- C6 Improve 115th Ave
- C7 Improve cross-section on Herman Rd
- C8 Add signal to Tualatin Rd and Boones Ferry Rd;
- C9 Consider removing trucks/adding truck info signs along 108th/105th Aves. .
- C10 Extend 95th Ave north to Tualatin Rd
- C12 Create an east/west connection across I-5 (near Greenhill Rd)
- C13 General- Provide travel options by improving connectivity in the roadway system
- C14 Widen Myslony St to standards – reduce on-street parking (AW Idea)*
- C15 Upgrade Cipole Rd to standards with sidewalks and bike lanes (AW Idea)
- C16 Improve Tonquin Rd between Oregon St and Waldo Way (AW Idea)
- C17 Improve circulation east of the Bridgeport/I-5 Interchange (AW Idea)

Other Ideas

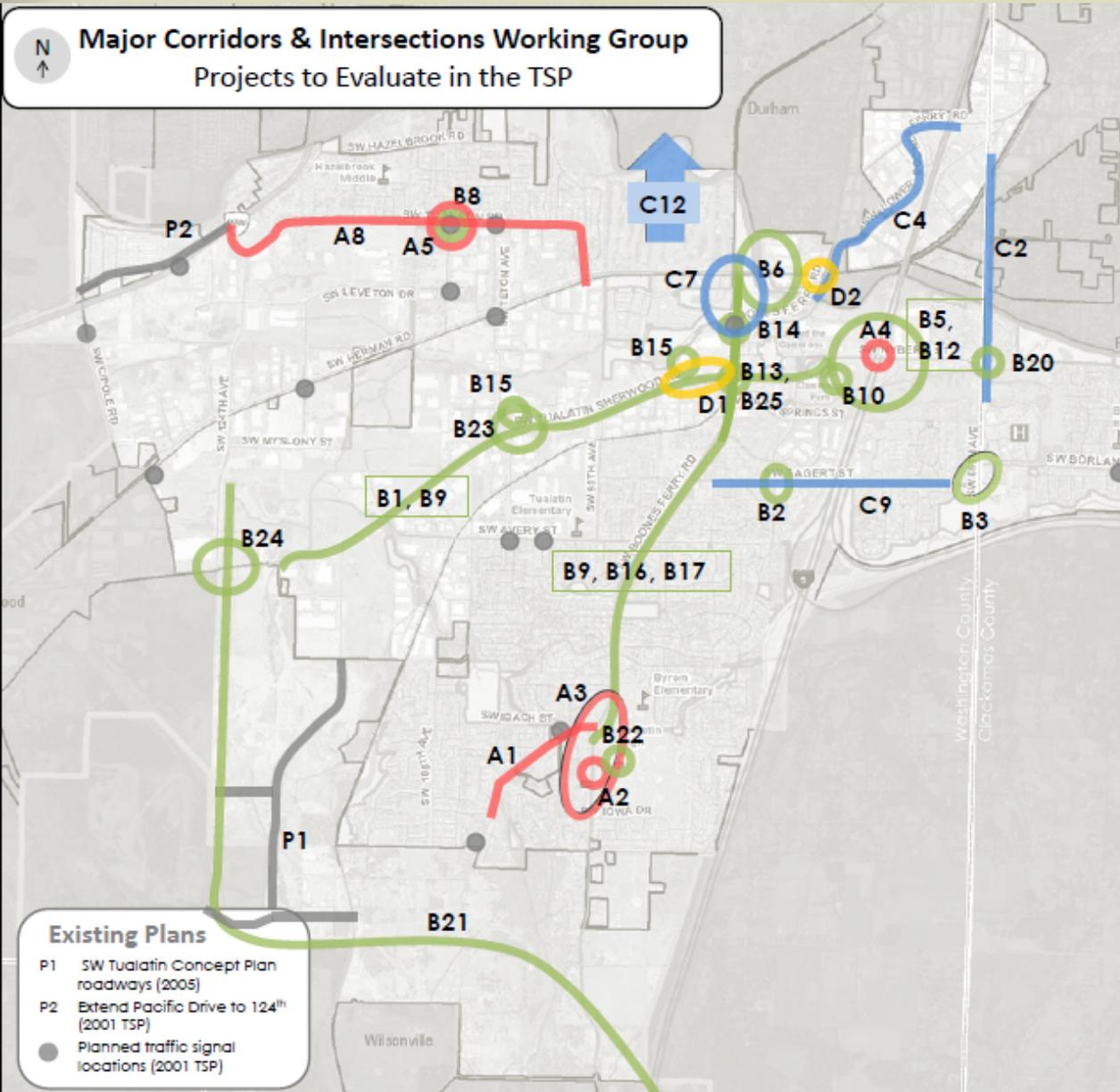
- D1 General – Coordinate freight receiving/shipping times
- D2 Add vision & sound walls; reduce cut-through traffic
- D3 General – Provide incentives to telecommute
- D5 Add a lane on Tualatin-Sherwood Rd to Fred Meyer, better I-5 lane signage. Add traffic camera for red light violations.
- D6 Improve signs to direct traffic to correct street
- D7 Add traffic signal at 97th Ave and Tualatin-Sherwood Rd
- D8 Improve visibility, restrict left turns, add signal on from 108th Ave onto Tualatin Rd
- D9 Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd
- D10 Improve Tualatin-Sherwood Rd/Martinazzi Ave signal timing/add a red light camera
- D11 Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd
- D12 General - Make "Truck Route" signs larger
- D13 Add traffic calming on Tualatin Rd
- D14 General - Add measures to reduce truck traffic on local and minor streets – including traffic calming
- D15 Improve turning radius from Herman Rd northbound onto 108th Ave (AW Idea)
- D16 Increase speed limit to 40 or 45 MPH on 124th Ave (AW Idea)
- D17 Reconfigure the intersection of 115th Ave and Tualatin-Sherwood Rd (AW Idea)
- D18 Improve turning radius from Tualatin-Sherwood Rd to Cipole Rd (AW Idea)
- D19 Improve northbound right and left turns onto Herman Rd (AW Idea)
- D20 Improve southbound left turns at 63rd Ave and Lower Boones Ferry Rd (AW Idea)
- D21 Improve southbound left turns from Jurgens and 106th Aves onto Tualatin Rd (AW Idea)
- D22 Improve 65th Ave south across I-205; widen and address dip in the roadway (AW Idea)
- D23 General – ensure that future roundabout designs can accommodate larger trucks (AW Idea)

* (AW Idea) indicates that this project was suggested through conversations with Allied Waste drivers



Major Corridors and Intersections

Major Corridors and Intersections



Major Corridors & Intersections Working Group
Projects to Evaluate in the TSP

Existing Plans

- P1 SW Tualatin Concept Plan roadways (2005)
- P2 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal locations (2001 TSP)

Safety-Focused Ideas

- A1 Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd
- A2 Add traffic signal at Tualatin High School
- A3 Consistent speed zones for both Tualatin High School & Byron Elementary School
- A4 Improve the sight distance at the I-5-Nyberg Rd interchange
- A5 Add traffic signal on Tualatin Rd at 108th Ave
- A6 General – consistent use of yellow turn signals on all traffic signals
- A8 Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd. Make residential access easier.

Congestion-Focused Ideas

- B1 Widen Tualatin-Sherwood Rd
- B2 Signal or roundabout at Sagert St and Martinazzi Ave
- B3 Realign Sagert St/Borland Rd intersection
- B5 Restrict right turn on red at Nyberg Interchange
- B6 Rethink access in vicinity of Tualatin Community Park
- B8 Prohibit left turns out of 108th Ave or remove trees in the southwest corner
- B9 Coordinate signal timing on Boones Ferry Rd and Tualatin-Sherwood Rd; widen Boones Ferry Rd
- B10 Redesign the intersection at the Fred Meyer (from Nyberg Rd)
- B12 Make two right turn lanes from I-5 north onto Nyberg Rd
- B13 Extend the northbound left turn lane and create a southbound right turn lane on Boones Ferry Rd at Tualatin-Sherwood Rd to reduce backup from WES train; add red light cameras
- B14 Reconfigure Boones Ferry Rd at Tualatin Rd
- B15 Add a 4-way stop by 90th Ave at Kaiser
- B16 Add bus pullouts on Boones Ferry Rd
- B17 Widen Boones Ferry Rd
- B20 Roundabout or signal intersection at Nyberg Rd/65th Ave; keep Nyberg Rd 2 lanes
- B21 Extend 124th Ave and connect to I-5 and Tonquin Rd
- B22 Address congestion caused by high school
- B23 Add a dedicated right turn lane on Teton Ave at Tualatin-Sherwood Rd
- B24 Add right turn lane on Tualatin-Sherwood Rd at 124th Ave

Connectivity-Focused Ideas

- C2 Extend 65th Ave north
- C4 Improve traffic flow on Lower Boones Ferry Rd near Bridgeport Village into downtown Tualatin
- C7 Revise connection between Tualatin Rd and Boones Ferry Rd near the railroad tracks
- C9 Widen Sagert to 2 lanes in each direction
- C12 Provide north-south connectivity over Tualatin River for vehicles

Other Ideas

- D1 Add lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Install traffic camera for signal violations.
- D2 Better signs needed to direct traffic to correct street



Neighborhood Livability

Neighborhood Livability

N
↑
Neighborhood Livability Working Group
Projects to Evaluate in the TSP

Safety-Focused Ideas

- A1 Discourage/restrict through & truck traffic along Tualatin Rd while encouraging a shift to Herman Rd & Leveton Rd. Make residential access along Tualatin Rd easier.
- A3 Reroute school buses away from Tualatin Community Park and two railroad crossings
- A4 Add a roundabout at Boones Ferry Rd & Norwood Rd
- A5 Make Boones Ferry Rd more pedestrian-friendly, including the creation of one consistent speed limit, without widening
- A6 Improve intersection at 108th Ave and Tualatin Rd
- A8 Reduce speed, possibly add trail through wooded area.
- A9 Eliminate free right turns

Congestion-Focused Ideas

- B1 Add a signal or roundabout at Sager St and Martinazzi Ave
- B2 Add a dedicated right turn lane into apartments near Nyberg Woods Shopping Center
- B3 Realign Sager St and Borland Rd intersection (roundabout or signal)
- B4 Improve intersection at Avery St and Teton Ave
- B5 Address congestion caused by high school
- B6 Adjust signal timing to reflect traffic needs
- B8 Add right turn lane from Tualatin-Sherwood Rd to northbound 124th Ave

Connectivity-Focused Ideas

- C1 Connect 124th Ave to Tonquin Rd
- C2 Consider removing trucks/adding truck info signs along 108th/105th Aves.
- C3 Balance the needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school
- C6 Create a street between Boones Ferry Rd and Bridgeport Rd
- C7 Extend 65th Avenue to the north

Bicycle/Pedestrian-Focused Ideas

- D2 Consider pedestrian islands on Boones Ferry Rd, near Byron Elementary and Tualatin High schools
- D3 Provide a multi-use path along the river
- D4 Connect sidewalk on east side of 65th Ave
- D5 Repair gap in sidewalk on the south side of Borland Rd
- D6 Add multi-use path as part of Tualatin Trail
- D7 Provide focused pedestrian crossing improvements (may need signal)
- D8 Add bike facilities & continuous sidewalks
- D9 Build the Tonquin Trail
- D10 Provide neighborhood connections to Tonquin Trail
- D11 Connect to Tualatin Path
- D12 General - add benches for walkers throughout the city
- D13 Create a system of bicycle boulevards (bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)

Transit-Focused Ideas

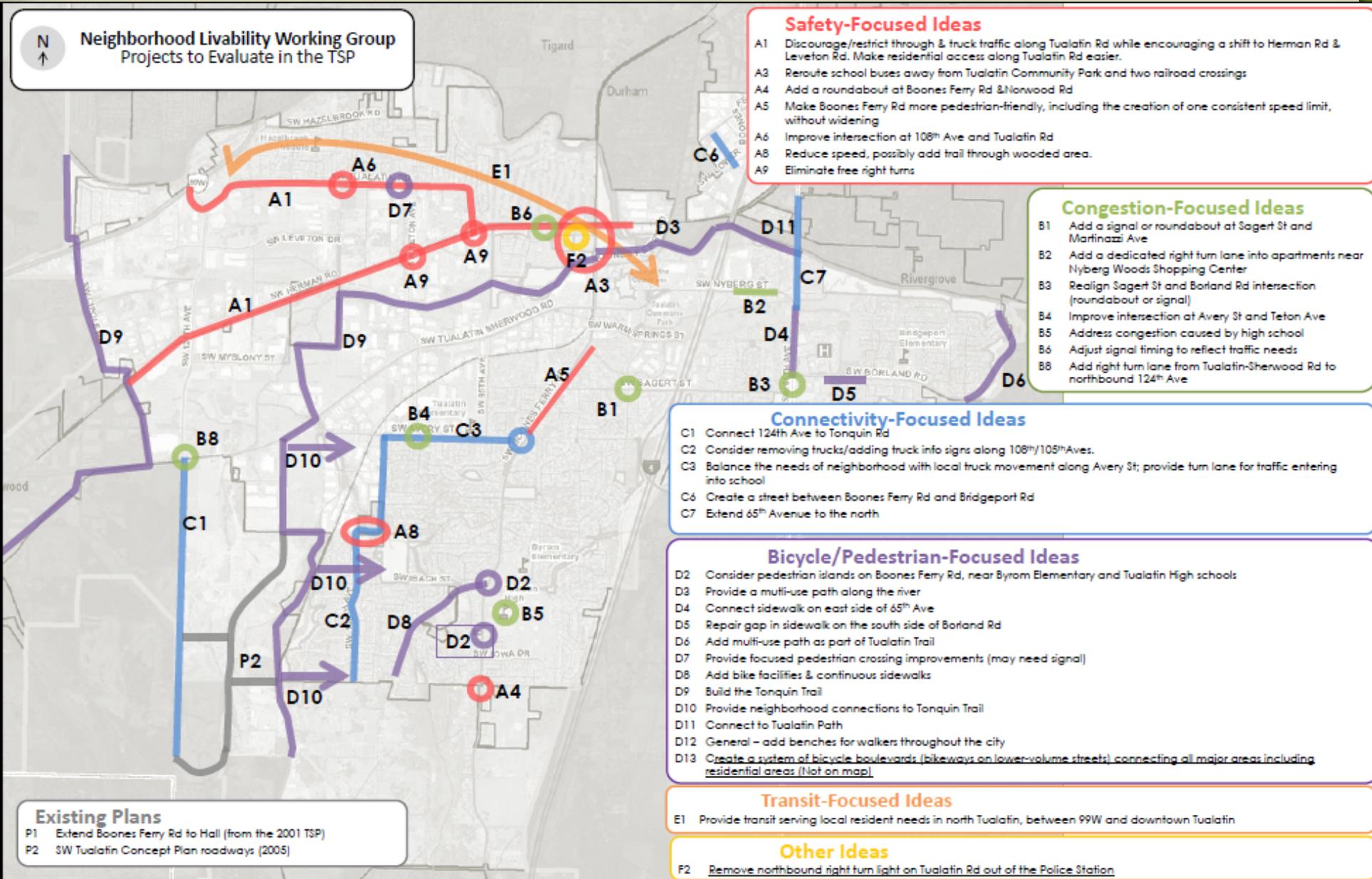
- E1 Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

Other Ideas

- F2 Remove northbound right turn light on Tualatin Rd out of the Police Station

Existing Plans

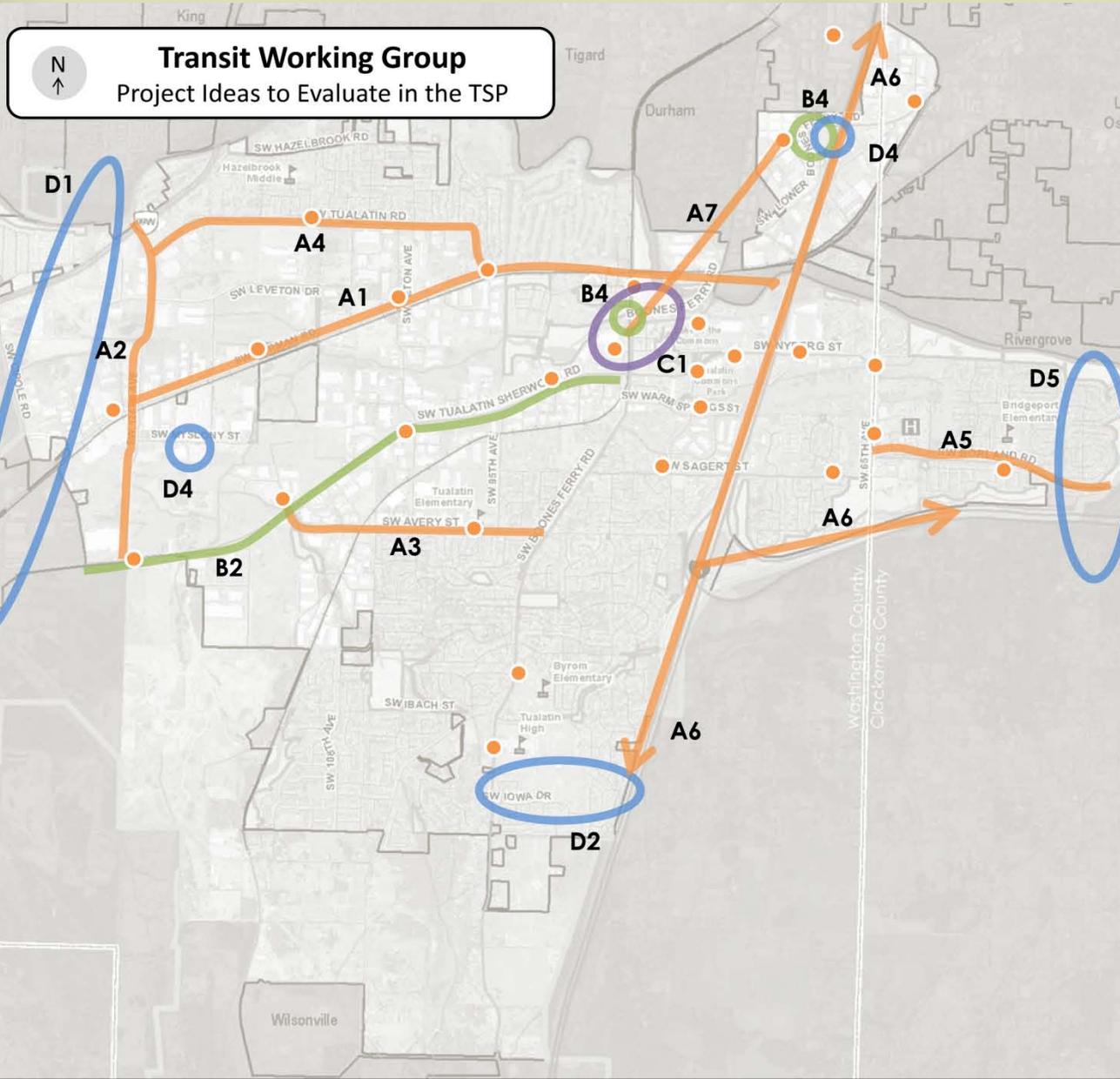
- P1 Extend Boones Ferry Rd to Hall (from the 2001 TSP)
- P2 SW Tualatin Concept Plan roadways (2005)





Transit

Transit - Projects to Evaluate



Bus Service-Focused Ideas

- A1 Provide bus transit service on Herman Road
 - A2 Provide bus transit service on 124th Street
 - A3 Provide bus transit service on Avery Street
 - A4 Provide bus transit service on Tualatin Road between downtown and 99W
 - A5 Extend bus service to east Tualatin
 - A6 Improve bus service between Tualatin and Salem
 - A7 Provide a shuttle or trolley service between Bridgport Village and Commons area, especially for weekend service
 - A8 Provide a loop bus route around the city*
 - A10 Expand existing on-call shuttle and charge fares*
 - A12 General – need extended service hours for all transit*
 - A13 General – use more energy efficient buses*
 - A14 Coordinate bus schedules with WES schedule*
 - A16 Add stops on higher-volume routes*
- Potential bus stop locations connecting major employers and activity centers

*not shown on map

Rail Service-Focused Ideas

- B2 Provide rail or high capacity bus transit service on Tualatin-Sherwood Road (towards Sherwood)
- B4 Build elevated pedestrian bridge to connect park-and-ride with shopping at Bridgport Village
- B10 General – Add more spaces for bicycles on WES trains*

Land Use-Focused Ideas

- C1 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Park-and-Ride-Focused Ideas

- D1 Look for potential park-and-ride locations in west Tualatin
- D2 Look for potential park-and-ride locations in south Tualatin
- D3 Add parking capacity at Tualatin Park-and-Ride (near Bridgport Village)
- D4 Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots
- D5 Add a park-and-ride location in east Tualatin

In Summary

- Preliminary review of evaluation results (tonight)
- Discussion of evaluation results (3rd round of working group meetings, early June)
- 3rd Round of Working Group meetings will also develop preliminary recommendations
 - What projects make sense, include in TSP?
 - What projects *don't* make sense, don't include in TSP?
 - What projects need additional analysis before we decide
- Preliminary recommendations discussion with Task Force (June 21st)
- Online open house on preliminary recommendations (July and August)

Third Round of Working Group Meetings

No.	Working Group	Date
1.	Downtown	June 4
2.	Transit	June 5
3.	Bicycle and Pedestrian	June 6
4.	Industrial and Freight	June 13 (lunchtime)
5.	Neighborhood Livability	June 13 (evening)
6.	Major Corridors	June 14

Next Steps

STEP 1

Identify Needs and Opportunities

Develop Goals and Objectives

Survey Existing Conditions

Forecast Future Conditions

** Public Involvement Activities Included*



STEP 2

Develop and Evaluate Solutions

Create a Long List of Potential Solutions

Screen/Evaluate How Ideas Help Meet Goals and Objectives

** Public Involvement Activities Included*



Our June Meeting will Focus on Preliminary Recommendations



STEP 3

Make Recommendations

Prepare Draft Project Recommendations

Refine Project Recommendations

Prioritize Project Recommendations

** Public Involvement Activities Included*



STEP 4

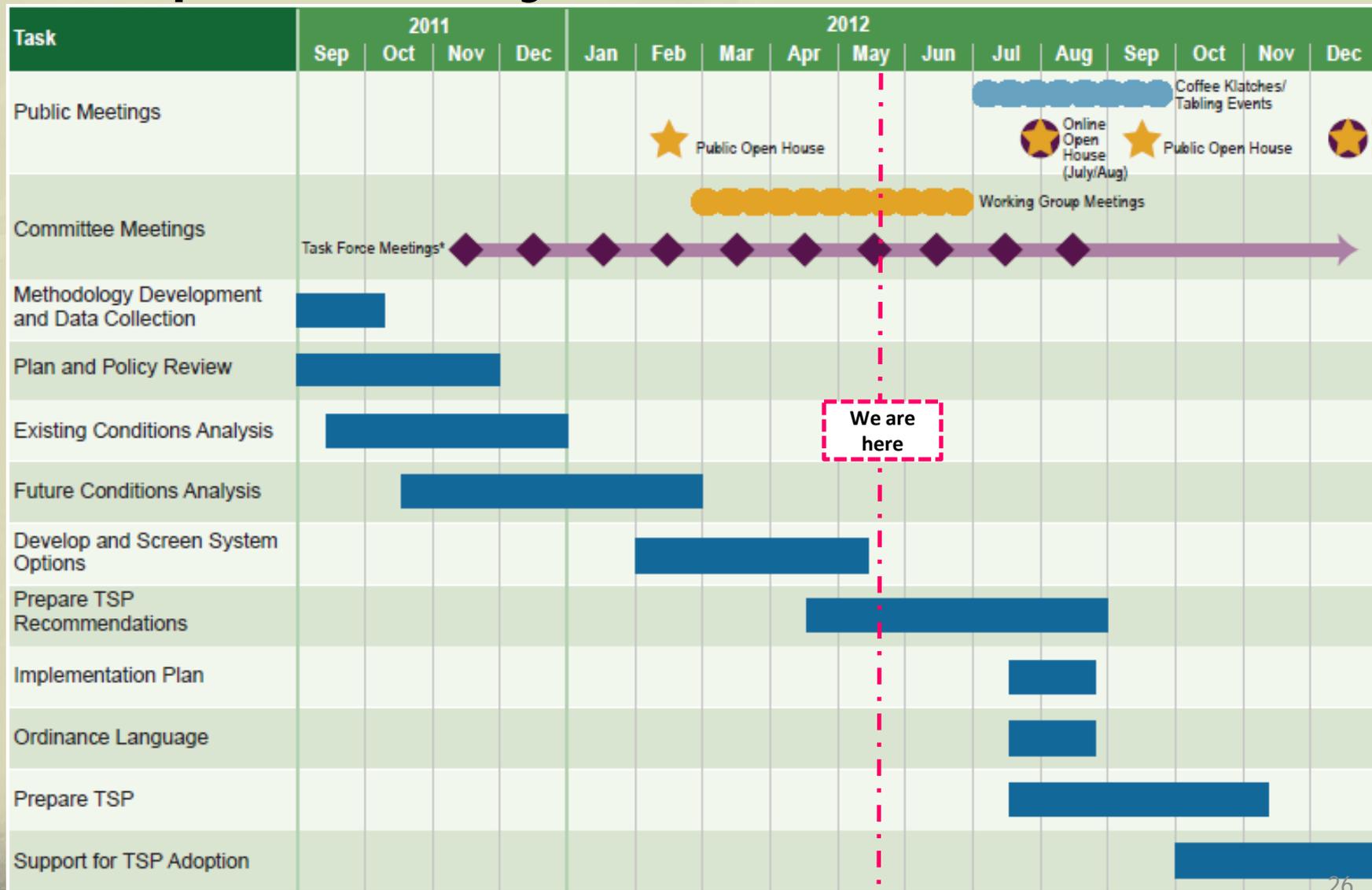
Create and Adopt the Plan

Develop a Draft TSP

Adopt the Final TSP

** Public Involvement Activities Included*

Transportation System Plan Timeline





Thank You

Tualatin TSP Goals and Objectives

As accepted by the Transportation Task Force at its February 2, 2012 meeting

With suggestions at and following Open House



Goal Category	Goal	Objective
Access and Mobility	Maintain and enhance the transportation system to reduce travel times, provide travel time reliability, provide a functional and smooth transportation system, and promote access for all users.	<p>Improve travel time reliability/ provide travel information for all modes including freight and transit</p> <p>Provide efficient and quick travel between point A and B</p> <p>Provide connectivity within the City between popular destinations and residential areas</p> <p>Accommodate future traffic, bicycle, pedestrian, and transit demand</p> <p>Reduce trip length and potential travel times for motor vehicles, freight, transit, bicycles, and walking</p> <p>Improve comfort and convenience of travel for all modes including bicycles, pedestrians, and transit users</p> <p>Increase access to key destinations for all modes</p>
Safety	Improve safety for all users, all modes, all ages, and all abilities within the City of Tualatin.	<p>Address known safety locations, including high crash locations for motor vehicles, bicycles, and pedestrians</p> <p>Address geometric deficiencies that could affect safety including intersection design, location and existence of facilities, and street design</p> <p>Ensure emergency vehicles are able to provide services throughout the City to support a safe community</p> <p>Provide a secure transportation system for all modes</p>
Vibrant Community	<p>Allow for a variety of alternative transportation choices for citizens of and visitors to Tualatin to support a high quality of life and the livability of the community.</p> <p>Produce a plan which respects and preserves neighborhood values and identity.</p>	<p>Create a variety of safe options for transportation needs including bicycling, pedestrians, transit, freight, and motor vehicles</p> <p>Provide complete streets that include universal access through pedestrian facilities, bicycle facilities and transit on some streets</p> <p>Support a livable community with family-friendly neighborhoods</p> <p>Maintain a small town feel</p>
Equity	Consider the distribution of benefits and impacts from potential transportation options, and work towards fair access to transportation facilities for all users, all ages, and all abilities.	<p>Promote a fair distribution of benefits and burdens on different populations within the City (i.e. low-income, transit dependant, minority, age groups) and different neighborhoods and employment areas within the City</p> <p>Consider access to transit for all users</p>

Goal Category	Goal	Objective
Economy	Support local employment, local businesses and a prosperous community while recognizing Tualatin’s role in the regional economy	<p>Support a vibrant City Center and community, accessible to all modes of transportation</p> <p>Support employment centers by providing transportation options to major employers</p> <p>Increase access to employment and commercial centers on foot, bike, or transit</p> <p>Consider positive and negative effects of alternatives on adjacent residential and business areas</p> <p>Accommodate freight movement</p> <p>Facilitate efficient access for goods, employees, and customers to and from commercial and industrial lands, including access to the regional transportation network.</p>
Health/Environment	Provide active transportation options to improve the health of citizens in Tualatin. Ensure transportation does not adversely impact public health or the environment.	<p>Provide active transportation options to area schools to reduce childhood obesity</p> <p>Promote active transportation modes to support a healthy public and children of all ages</p> <p>Provide interconnected networks for bicyclists and pedestrians throughout the City for all age groups</p> <p>Consider air quality effects of potential transportation solutions</p> <p>Protect park land and create an environmentally sustainable community</p> <p>Consider positive and negative effects of potential solutions on the natural environment (including wetlands and habitat areas)</p>
Ability to be Implemented	Promote potential options that are able to be implemented because they have community and political support and are likely to be funded.	<p>Promote fiscal responsibility and ensure that potential transportation system options are able to be funded given existing and anticipated future funding sources</p> <p>Evaluate for consistency with existing community, regional, and state goals and policies</p> <p>Strive for broad community and political support</p> <p>Optimize benefits over the life-cycle of the potential option</p> <p>Consider transportation options that make best use of the existing network</p> <p>Conduct the planning process with adequate input and feedback from citizens in each affected neighborhood</p>

Bicycle and Pedestrian Preliminary Project Evaluation

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Safety	A1	Add pedestrian crossing treatments at key locations on Tualatin-Sherwood and Nyberg	●	●	●	●	●	●	●
	A2	Multi-use path on 65th Ave between Borland and Nyberg	●	●	●	●	●	●	●
	A3	Improve visibility and safety near schools at crosswalks	●	●	●	○	●	●	●
	A4	Improve visibility at crosswalk at Siletz Dr and Boones Ferry Rd	○	●	○	○	●	●	●
	A6	Provide wayfinding for Safe Routes to School	●	●	●	●	●	○	●
Facility	B1	Add bike box on Boones Ferry Rd near the Sweek House	○	●	●	○	●	○	●
	B2	Add sidewalks and bicycle lanes on Norwood Rd	●	●	●	●	●	●	●
	B3	Improve Tualatin-Sherwood Rd for bicyclists and pedestrians	●	●	N/A	●	●	●	○
	B4	Add bicycle facilities near the hospital, 95th and Martinazzi	●	●	●	●	●	●	●
	B5	Improve bicycle facility treatments in downtown core	●	●	●	●	●	●	●
	B6	Better accommodate pedestrians on the bridges	●	●	●	●	●	●	○
	B7	Build a raised intersection at Seneca and Nyberg	○	○	●	○	●	●	○
	B8	Fill sidewalk gaps on Grahams Ferry, Boones Ferry, and Herman	●	●	●	N/A	●	●	●

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	
B9	Add bicycle and pedestrian facilities on 105th Ave, Blake St, and 108th Ave	◐	●	◐	◐	●	◐	◐	
B10	Connect Tonquin trail with neighborhoods	●	◐	◐	●	●	●	◐	
B11	Add dedicated bike lane through Avery and Boones Ferry intersection	◐	◐	N/A	N/A	◐	◐	◐	
B13	Improve bicycle and pedestrian treatments at railroad crossings	◐	●	N/A	N/A	●	◐	○	
B14	Improve pedestrian crossing along Boones Ferry Rd	◐	◐	●	●	◐	N/A	●	
B15	Add bicycle lanes on Boones Ferry Rd to Day Rd	◐	●	●	N/A	●	●	◐	
B16	Add I-5 multi-use crossing – connect to planned and existing multi-use paths	●	○	●	●	◐	◐	◐	
B17	Create a bike path to Old Town Sherwood as this area develops	●	●	◐	◐	◐	●	○	
B18	Add a grade-separated crossing over 99W	◐	●	○	○	◐	○	○	
B19	Add bike detection loops at major intersections	◐	N/A	◐	N/A	◐	◐	●	
B20	Add benches for walkers throughout the city	N/A	N/A	●	N/A	●	●	●	
B21	Allow wider sidewalks for strolling and outdoor cafes	N/A	◐	●	●	◐	N/A	◐	
Trail	C2	Build pedestrian and bicycle bridges over the Tualatin River	◐	●	●	◐	●	◐	○
	C4	Create a bicycle boulevard system connecting major areas	◐	●	◐	◐	●	●	◐
	C5	Build the Tonquin Trail	●	●	●	●	●	●	●

Downtown Preliminary Project Evaluation

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Safety	A1	Upgrade bridge surface and improve illumination along path in back of Haggens	◐	●	●	◐	●	◐	◐
	A2	Consider raised intersections on Martinazzi for pedestrian safety	○	◐	●	○	◐	●	◐
	A4	Reduce speeds near Bridgeport Village	○	●	○	○	◐	N/A	○
	A5a	Redesign Fred Meyer / Kmart intersection	◐	●	◐	●	◐	◐	◐
	A5b	Improve pedestrian crossing at Fred Meyer/Kmart intersection	●	●	◐	◐	◐	◐	◐
	A6	Add roundabout at Boones Ferry and Lower Boones Ferry Road	◐	○	○	◐	◐	◐	○
	A7	Add pedestrian island on Martinazzi Ave north of Seneca	○	◐	○	●	◐	◐	●
Congestion	B1	Improve circulation into and out of the Tualatin Community Park	●	◐	◐	●	●	●	◐
	B3	Add an eastbound lane on Tualatin-Sherwood Rd from Martinazzi to I-5	●	◐	○	●	○	◐	◐
	B7	Replace/widen Boones Ferry Road bridge over Tualatin River	●	●	◐	●	◐	●	◐
	B9	Widen Boones Ferry Rd	●	◐	◐	◐	○	◐	○
	B10	Widen Tualatin-Sherwood Rd through downtown	◐	◐	○	●	○	●	○
Connectivity	C1	Build a trail from Boones Ferry to downtown core along river and extend to the greenway	●	◐	◐	◐	●	◐	◐
	C2	Provide north-south connectivity over Tualatin River for vehicles	●	◐	◐	●	◐	◐	○
	C4	Create a grid system near the Kmart upon redevelopment with a connection to Seneca	●	◐	●	◐	●	◐	◐
	C5	Improve downtown core street connectivity	●	◐	●	○	●	◐	○

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
	C6	Create road connections between Boones Ferry Rd and SW 90th Ave	☐	○	N/A	☐	○	☐	○
Bicycle/Pedestrian	D1	Redesign pedestrian crossings, consider flashing lights in the downtown core	○	●	☐	○	☐	☐	☐
	D2	Upgrade Nyberg interchange to improve the crossing experience for bicyclists	●	●	☐	○	☐	☐	○
	D3	Optimize intersections to reduce car/pedestrian conflicts along Boones Ferry and Tualatin Sherwood Roads	☐	●	☐	○	☐	☐	☐
	D4	Add pedestrian crossing at the WES stop (Seneca)	○	○	☐	○	☐	☐	○
	D6	Improve sidewalks and bicycle lane at Boones Ferry to Lower Boones Ferry.	●	●	☐	☐	●	☐	☐
	D7	Bike and pedestrian treatments near Bridgeport Village	☐	☐	☐	☐	☐	○	☐
	D8	Provide signage and/or other visual cues to motorists to accommodate bicycles	☐	☐	☐	☐	●	☐	☐
	D9	Add bicycle lane or "Share the Road" signs	☐	☐	☐	☐	●	☐	☐
	D10	Coordinate traffic signal timing to accommodate pedestrians.	○	N/A	●	○	○	☐	○
	D11	Add focused pedestrian crossing over Boones Ferry Road at Tonka	○	☐	☐	○	☐	☐	○
	Land Use	F1	Encourage better multimodal circulation and transit-oriented redevelopment for major downtown uses	●	☐	●	☐	●	☐
F2		Look for opportunities to open downtown's connection to the riverfront	●	☐	●	☐	●	☐	☐
F3		Eliminate parking minimums, consider parking maximums	N/A	☐	○	○	N/A	N/A	○
F4		Add structured parking in downtown core	☐	N/A	○	N/A	N/A	N/A	☐

Industrial and Freight Preliminary Project Evaluation

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Congestion	A1	Add a signal or roundabout at Sagert/Martinazzi	●	◐	◐	●	◐	○	◐
	<u>A2</u>	Divert truck traffic from Tualatin Road to Herman Road	●	N/A	◐	◐	◐	◐	◐
	A5	Extend 124th Ave south	●	◐	◐	●	◐	●	◐
	A6	Provide coordinated signal timing and access management along major arterials	●	●	◐	◐	N/A	N/A	◐
	<u>A7</u>	Remove NB right turn light on Boones Ferry Road	◐	○	◐	◐	N/A	N/A	◐
	<u>A9</u>	Improvements to help mobility of through-traffic on Tualatin-Sherwood Rd	●	◐	◐	●	○	●	◐
	A11	Address congestion on Avery and Teton	●	●	N/A	◐	N/A	N/A	◐
	<u>A12</u>	Synchronize turn signals to/from Boones Ferry to Tualatin-Sherwood; coordinate with the train signal	●	N/A	◐	◐	N/A	N/A	◐
	<u>A13</u>	Widen Boones Ferry Rd through downtown	●	◐	◐	◐	○	◐	○
	Transit	B1	Expand service hours of chamber shuttle to nights and weekends	●	●	◐	●	◐	○
B2		Add rail station with easy offload and access for industry in the west part of town	●	N/A	●	◐	●	●	◐
B3		Provide local loop bus	◐	N/A	◐	◐	◐	●	◐
Connectivity	<u>C3</u>	Provide north-south vehicle connectivity over Tualatin River	●	◐	◐	●	◐	◐	○
	C4	Add a left turn from Teton Ave to Tualatin Rd	N/A	N/A	N/A	N/A	N/A	N/A	○
	C5	Extend 65th Ave north	●	●	◐	●	◐	◐	○

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Connectivity, Cont.	C6	Improve 115th Ave	●	◐	○	◐	◐	◐	◐
	C7	Improve cross-section on Herman Rd	●	●	○	●	●	◐	◐
	C8	Add signal to Tualatin and Boones Ferry intersection	●	●	N/A	◐	○	◐	○
	C9	Consider removing trucks/adding truck info signs along 108th/105th Aves	○	N/A	●	○	●	○	◐
	C10	Extend 95th Ave north to Tualatin Rd	●	◐	○	◐	○	○	○
	C12	Create an east/west connection across I-5 (near Greenhill Rd)	●	●	◐	◐	◐	◐	◐
	C13	Provide travel options by improving connectivity in the roadway system	◐	●	●	◐	◐	◐	◐
	C14	Widen Myslony St to standards - reduce on-street parking	◐	●	N/A	◐	N/A	◐	◐
	C15	Upgrade Cipole Rd to standards with sidewalks and bike lanes	◐	◐	●	●	◐	◐	◐
	C16	Improve Tonquin Rd between Oregon St and Waldo Way	◐	◐	N/A	◐	N/A	◐	◐
	C17	Improve circulation east of the Bridgeport/I-5 Interchange	◐	◐	◐	◐	◐	◐	◐
Other	D1	Coordinate freight receiving/ shipping times	●	●	●	◐	N/A	N/A	◐
	D2	Add vision and sound walls; reduce cut-through traffic	○	○	●	○	○	○	○
	D3	Provide incentives to telecommute	◐	◐	N/A	◐	◐	◐	◐
	D5	Add lane on Tualatin-Sherwood to Fred Meyer, better I-5 lane signage, add red light camera	●	◐	○	●	◐	N/A	◐
	D6	Improve signs to direct traffic to correct street	◐	N/A	N/A	N/A	N/A	N/A	○
	D7	Add traffic signal at 97th Ave and Tualatin-Sherwood Rd	◐	◐	◐	◐	◐	N/A	◐

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
<u>D8</u>	Improve visibility, add signal restrict left turns from 108th onto Tualatin	☐	☐	☐	○	☐	☐	☐
<u>D9</u>	Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd	☐	N/A	☐	☐	☐	☐	☐
D10	Improve Tualatin-Sherwood and Martinazzi signal timing	☐	N/A	N/A	☐	N/A	N/A	☐
<u>D11</u>	Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd	☐	N/A	N/A	☐	●	N/A	☐
D12	Make "Truck Route" signs larger	N/A	N/A	☐	☐	N/A	N/A	☐
<u>D13</u>	Add traffic calming on Tualatin Road	○	○	●	○	☐	●	☐
D14	Add measures to reduce truck traffic on local and minor streets	○	●	●	○	☐	●	☐
D15	Improve turning radius from Herman Rd northbound onto 108th Ave	☐	☐	N/A	☐	N/A	N/A	☐
D16	Increase speed limit to 40 or 45 MPH on 124th Ave	☐	N/A	N/A	☐	N/A	N/A	☐
D17	Reconfigure the intersection of 115th and Tualatin-Sherwood	☐	☐	N/A	☐	N/A	N/A	☐
D18	Improve turning radius from Tualatin-Sherwood to Cipole	☐	☐	N/A	☐	N/A	N/A	☐
D19	Improve NB right and left turns onto Herman	☐	☐	N/A	●	N/A	N/A	☐
D20	Improve southbound left turns at 63rd and Lower Boones Ferry	☐	☐	N/A	☐	N/A	N/A	☐
D21	Improve SB left turns from Jurgens and 106th onto Tualatin	☐	☐	N/A	☐	N/A	N/A	☐
D22	Improve 65th Ave south across I-205; widen and address dip in the roadway	☐	☐	N/A	☐	N/A	N/A	☐
D23	Ensure that future roundabout designs can accommodate larger trucks	☐	●	N/A	☐	N/A	N/A	☐

Other, Cont.

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PRELIMINARY

Major Corridors and Intersections Preliminary Project Evaluation

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Safety	A1	Reduce speeds, add guardrail and shoulders to section of Grahams Ferry	☐	●	●	N/A	☐	☐	☐
	A2	Add traffic signal at Tualatin HS	☐	☐	☐	N/A	☐	○	○
	A3	Consistent speed zones for Tualatin HS and Byrom Elementary	N/A	●	N/A	N/A	N/A	N/A	●
	A4	Improve sight distance at I-5 and Nyberg Rd interchange	N/A	●	N/A	☐	☐	☐	☐
	A5	Add traffic signal on Tualatin Rd at 108th	☐	☐	☐	☐	☐	☐	☐
	A6	Consistent use of yellow turn signals at traffic signals	☐	●	N/A	☐	N/A	N/A	●
	A8	Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman	●	☐	●	☐	☐	☐	○
	B1	Widen Tualatin-Sherwood Rd	●	☐	○	●	○	●	○
Congestion	B2	Signal or roundabout at Sagert and Martinazzi	●	☐	☐	●	☐	○	☐
	B3	Realign Sagert /Borland to one intersection	●	☐	○	○	○	○	○
	B5	Restrict right turn on red at Nyberg Interchange	○	●	N/A	○	☐	●	○
	B6	Rethink access in vicinity of Tualatin Community Park	☐	☐	●	N/A	☐	●	☐
	B8	Prohibit left turns out of 108th Ave or remove trees in the southwest corner	○	☐	○	☐	☐	○	☐
	B9	Coordinate signal timing on Boones Ferry	●	●	N/A	●	N/A	☐	●
	B10	Redesign Nyberg/Fred Meyer intersection and improve pedestrian crossing	☐	●	☐	●	☐	☐	☐
	B12	Make two right turn lanes from I-5 north onto Nyberg Rd	●	☐	N/A	☐	○	●	☐

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	
B13	Extend NB left turn and create SB right turn lane on Boones Ferry at Tualatin-Sherwood to reduce backup from WES train	●	◐	◐	●	◐	◐	◐	
B14	Reconfigure Boones Ferry at Tualatin	◐	◐	○	◐	○	◐	○	
B15	Add a 4-way stop by 90th Ave at Kaiser	○	◐	◐	○	◐	◐	◐	
B16	Add bus pullouts on Boones Ferry Rd	●	◐	○	◐	○	●	◐	
B17	Widen Boones Ferry at south end of City	●	◐	◐	◐	○	◐	○	
B20	Roundabout at Nyberg and 65 th intersection	◐	N/A	○	○	○	○	○	
B21	Extend 124th Ave to south	●	◐	◐	●	◐	●	◐	
B22	Address congestion caused by high school	◐	◐	◐	◐	◐	○	◐	
B23	Add a dedicated right turn lane on Teton at Tualatin-Sherwood	●	◐	N/A	◐	◐	◐	●	
B24	Add right turn lane on Tualatin-Sherwood at 124th	◐	◐	N/A	◐	◐	○	◐	
Connectivity	C2	Extend 65th Ave to the north	●	◐	○	●	○	◐	○
	C4	Improve traffic flow on Lower Boones Ferry Rd between Bridgeport Village and downtown	●	●	◐	●	◐	◐	◐
	C7	Revise connection between Tualatin and Boones Ferry near the railroad tracks	◐	◐	○	◐	○	◐	○
	C9	Widen Sagert to 2-lanes each way	●	●	○	●	○	○	○
	C12	Look for ways to provide north-south connectivity over Tualatin River for vehicles	●	◐	◐	◐	◐	◐	○
Other	D1	Add lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Install traffic camera for signal violations.	●	●	○	●	○	◐	◐
	D2	Better signs needed to direct traffic to correct street	N/A	N/A	N/A	N/A	N/A	N/A	○

Neighborhood Livability Preliminary Project Evaluation

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Safety	A1	Discourage through and truck traffic along Tualatin while encouraging through and truck traffic along Herman	●	◐	●	◐	◐	◐	○
	A3	Reroute school buses away from Tualatin Community Park and two railroad crossings	◐	●	◐	N/A	◐	◐	◐
	A4	Add roundabout at Boones Ferry and Norwood	◐	◐	○	○	○	◐	◐
	A5	Make Boones Ferry Rd more pedestrian-friendly	◐	●	●	◐	●	○	◐
	A6	Improve intersection at 108th and Tualatin	◐	◐	◐	◐	◐	◐	◐
	A8	Reduce speed, possibly add trail through wooded area	○	◐	●	○	◐	◐	◐
	A9	Eliminate free right turns on Herman at Teton and Tualatin	○	●	●	○	◐	◐	●
	B1	Add signal or roundabout at Sagert and Martinazzi	●	◐	◐	●	◐	○	◐
	B2	Add dedicated right turn lane into apartments near Nyberg Woods Shopping Center	◐	◐	◐	○	◐	◐	◐
Congestion	B3	Realign Sagert /Borland to one intersection	●	◐	○	○	○	○	○
	B4	Improve intersection at Avery and Teton	●	●	N/A	◐	N/A	N/A	◐
	B5	Address congestion caused by HS	◐	◐	◐	◐	◐	○	◐
	B6	Adjust signal timing to give priority to Tualatin Road through traffic.	●	◐	○	◐	○	○	◐
	B8	Add right turn lane on Tualatin-Sherwood at 124th	◐	◐	N/A	◐	◐	○	◐
	C1	Extend 124th to south	●	◐	◐	●	◐	●	◐
C2	Consider removing trucks/adding truck info signs along 108th/105th Aves	○	N/A	●	○	●	●	◐	

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Connectivity	C3	Balance neighborhood needs and trucks movement along Avery; provide turn lane for traffic entering school	●	◐	◐	◐	◐	◐	◐
	C6	Create a street between Boones Ferry and Bridgeport	●	◐	○	○	○	○	○
	C7	Extend 65th to the north	●	◐	○	●	○	◐	○
Bicycle/Pedestrian	D2	Add pedestrian islands on Boones Ferry, near Byrom Elementary and Tualatin HS	○	◐	◐	○	◐	◐	◐
	D3	Provide a multi-use path along the river	●	●	●	◐	●	●	◐
	D4	Connect sidewalk on east side of 65th	●	◐	●	●	◐	●	◐
	D5	Repair gap in sidewalk on south side of Borland	●	●	●	N/A	●	◐	●
	D6	Add multi-use path as part of Tualatin Trail	●	●	●	◐	●	◐	◐
	D7	Provide focused pedestrian crossing improvements along Tualatin Road	○	●	●	○	●	◐	◐
	D8	Add bike facilities and continuous sidewalks along Graham's Ferry	●	●	◐	N/A	◐	◐	◐
	D9	Build the Tonquin Trail	●	●	●	●	●	●	●
	D10	Connect Tonquin trail with neighborhoods	●	◐	◐	●	●	●	◐
	D11	Connect to Tualatin Path	●	◐	●	N/A	◐	◐	◐
	D12	Provide benches for walkers throughout city	N/A	N/A	●	N/A	●	●	●
	D13	Create a bicycle boulevard system connecting major areas	◐	●	◐	◐	●	●	◐
	Transit	E1	Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin	●	N/A	◐	◐	◐	◐
Other	F2	Remove NB right turn signal on Tualatin out of Police Station	○	○	N/A	N/A	N/A	N/A	◐

Transit Preliminary Project Evaluation

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Bus	A1	Provide bus transit service on Herman Road	●	N/A	●	◐	◐	●	◐
	A2	Provide bus transit service on 124th Street	●	N/A	●	◐	◐	●	◐
	A3	Provide bus transit service on Avery Street	●	N/A	●	◐	◐	●	◐
	A4	Provide bus transit service on Tualatin Road between downtown and 99W	●	N/A	●	◐	◐	●	◐
	A5	Extend bus service to east Tualatin	●	N/A	●	◐	◐	●	◐
	A6	Provide express bus service between Tualatin and Salem	●	N/A	◐	◐	◐	●	◐
	A7	Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service	●	N/A	●	●	◐	●	◐
	A8	Provide a loop bus route around the city	●	N/A	●	◐	◐	●	○
	A10	Create an on-call shuttle for industrial and manufacturing workers during the day – consider charging fares	◐	N/A	●	●	◐	●	◐
	A12	General –extend service hours for all transit	●	N/A	●	◐	◐	◐	○
	A13	General – use more energy efficient buses	N/A	N/A	N/A	N/A	●	N/A	○
	A14	Coordinate TriMet and SMART bus schedules with WES schedule	○	N/A	N/A	◐	◐	◐	◐
A16	Add stops on higher volume bus routes	○	N/A	●	N/A	◐	◐	○	
Rail	B1	Add more bicycle storage at the WES station	◐	N/A	N/A	N/A	N/A	N/A	○
	B2	Provide rail or high capacity bus transit service on Tualatin-Sherwood Road	●	N/A	◐	●	◐	●	◐

	ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented
Rail	B4	Build an elevated pedestrian bridge to connect the Tualatin park-and-ride with shopping at Bridgeport Village	☐	N/A	○	N/A	N/A	○	○
	C1	Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections	●	N/A	●	●	☐	●	☐
Park-and-Ride	D1	Look for potential park-and-ride locations in west Tualatin	☐	N/A	●	☐	●	●	☐
	D2	Look for potential park-and-ride locations in south Tualatin	☐	N/A	●	N/A	●	●	☐
	D3	Add parking capacity at Tualatin Park-and-Ride - Potential structure	☐	N/A	☐	●	○	●	☐
	D4	Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots and transfer spaces to higher utilized areas	☐	N/A	●	☐	☐	●	☐
	D5	Add a park-and-ride in east Tualatin	☐	N/A	●	N/A	●	●	☐



City of Tualatin
**Preliminary
Recommendations**

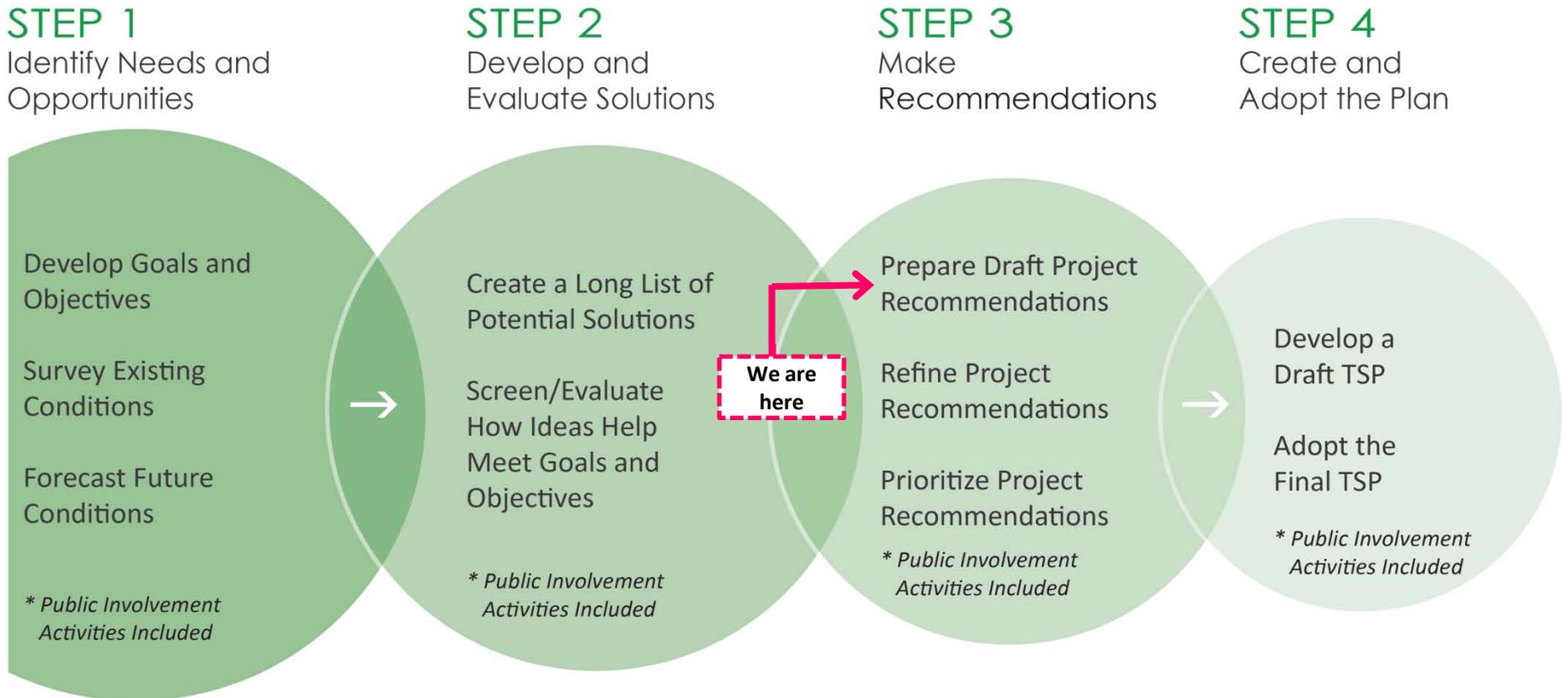
Tualatin TSP

Presentation to
Tualatin Transportation Task Force
June 21, 2012

Presentation Outline

- An Overview
- Discussion of Recommendations by Working Group Topic Area
 - Bicycle and Pedestrian
 - Downtown
 - Industrial and Freight
 - Major Corridors and Intersections
 - Neighborhood Livability
 - Transit
- Next Steps

Where We Are In the TSP Process



Progress Since our May 24th Meeting...

1. Discussed project evaluations with
 - ✓ Planning Commission
 - ✓ TPARK
 - ✓ Working Groups
2. Refined evaluations based on feedback
3. Prepared preliminary recommendations

Working Group Meetings, Round 3

No.	Working Group	Date	No. Attendees
1.	Downtown	June 4	16
2.	Transit	June 5	14
3.	Bicycle and Pedestrian	June 6	6
4.	Industrial and Freight	June 13 (lunchtime)	5
5.	Neighborhood Livability	June 13 (evening)	12
6.	Major Corridors	June 14	18

Structure of Working Group Meetings

- Present evaluation results (project by project) as a large group
- Discuss evaluation results in a small group format
- Provide feedback on recommended projects
 - ✓ **Green dots** = project provides greatest value to the community
 - ✓ **Red dots** = project should not be included in TSP

Organization of Recommendations

Description	Recommendation
What projects make sense to include in TSP?	Yes
What projects make some sense, but are not cost effective on their own?	Only with urban upgrade
What projects <i>don't</i> make sense, and shouldn't be included in TSP?	No
What projects need additional analysis before we decide	Refinement Topic Area <u>or</u> Needs Refinement

Your Role Tonight

1. Do you agree with these preliminary recommendations?
2. If not, why not?
3. What additional analysis does the technical team need to do?

Refinement Topic Areas

1. Tualatin-Sherwood Road Options
2. Nyberg Interchange Options
3. Boones Ferry Road Options
4. North to South Connectivity
5. Herman Road and Tualatin Road Options
6. Tualatin's Downtown Circulation



Preliminary Recommendations

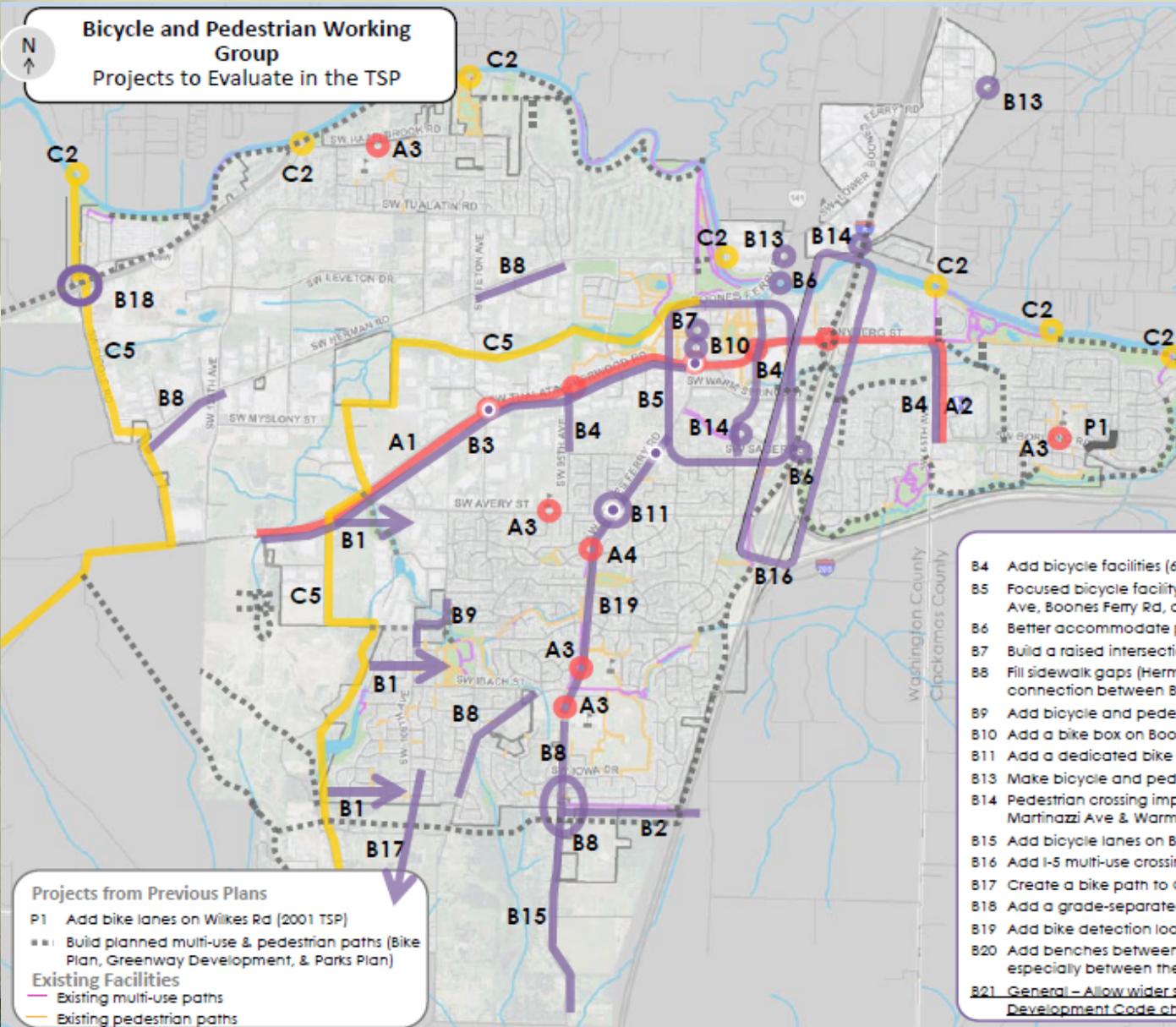
By Working Group
Topic Area



Bicycle/Pedestrian

Bicycle and Pedestrian

Bicycle and Pedestrian Working Group Projects to Evaluate in the TSP



Safety-Focused Ideas

- A1 Add pedestrian-focused crossing improvements at key crossings of Tualatin-Sherwood Rd & Nyberg St
- A2 Multi-use path between Borland Rd and Nyberg Ln
- A3 Improve visibility and safety near schools at crosswalks
- A4 Improve visibility at crosswalk at Siletz Dr & Boones Ferry Rd
- A6 General – Provide wayfinding signs for Safe Routes to School

Trail-Focused Ideas

- C2 Build bridges for pedestrian and bicycle access over the Tualatin River
- C4 Create a system of bicycle boulevards (Bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)
- C5 Tonquin Trail

Facility-Focused Ideas

- B1 Connect Tonquin trail with neighborhoods
- B2 Add sidewalks & bicycle lanes on Norwood Rd
- B3 Improve Tualatin-Sherwood Rd to make it more bicycle and pedestrian friendly
- B4 Add bicycle facilities (65th Ave near the hospital, 95th Ave and Martinazzi Ave)
- B5 Focused bicycle facility improvements in heart of downtown, including Martinazzi Ave, Boones Ferry Rd, and Tualatin-Sherwood Rd
- B6 Better accommodate pedestrians on the bridges
- B7 Build a raised intersection at Seneca and Nyberg (crossing Boones Ferry Rd)
- B8 Fill sidewalk gaps (Herman Rd, Grahams Ferry Rd, Boones Ferry Rd, and the connection between Boones Ferry Rd and Norwood Rd)
- B9 Add bicycle and pedestrian facilities on 105th Ave, Blake St, 108th Ave
- B10 Add a bike box on Boones Ferry Rd near the Sweek House
- B11 Add a dedicated bike lane through intersection at Avery St & Boones Ferry Rd
- B13 Make bicycle and pedestrian facility improvements at railroad crossings
- B14 Pedestrian crossing improvements (Tualatin View Apartments, Boones Ferry Rd; Martinazzi Ave & Warm Springs St)
- B15 Add bicycle lanes on Boones Ferry Rd to Day Rd
- B16 Add I-5 multi-use crossing – connect to existing multi-use paths
- B17 Create a bike path to Old Town Sherwood as this area develops
- B18 Add a grade-separated crossing over 99W
- B19 Add bike detection loops at major intersections (indicated by ●)
- B20 Add benches between residential and commercial areas throughout the city, especially between the Heritage Center and Haggens (not on map)
- B21 General – Allow wider sidewalks for strolling and outdoor cafes. (Potential Tualatin Development Code change)

Projects from Previous Plans

- P1 Add bike lanes on Wilkes Rd (2001 TSP)
- Build planned multi-use & pedestrian paths (Bike Plan, Greenway Development, & Parks Plan)

Existing Facilities

- Existing multi-use paths
- Existing pedestrian paths

Projects to Forward into the TSP

No.	Project Description
A1	Add ped crossing treatments at key locations on Tualatin-Sherwood, Nyberg
A2	Multi-use path on 65th Ave between Borland and Nyberg
A3	Improve visibility and safety near schools at crosswalks
A4	Improve visibility at crosswalk at Siletz Dr and Boones Ferry Rd
A6	Provide wayfinding for Safe Routes to School
B1	Connect Tonquin trail with neighborhoods
B8	Fill sidewalk gaps on Grahams Ferry, Boones Ferry, and Herman
B9	Add bicycle and pedestrian facilities on 15th Ave, Blake St, and 18th
B11	Add dedicated bike lane through Avery and Boones Ferry intersection
B13	Improve bicycle and pedestrian treatments at railroad crossings
B16	Add I-5 multi-use crossing – connect to planned, existing paths
B20	Add benches for walkers throughout the city
C4	Create a bicycle boulevard system connecting major areas
C5	Build the Tonquin Trail

Urban Upgrade Projects

No.	Project Description
B2	Add sidewalks and bicycle lanes on Norwood
B4	Add bicycle facilities near the hospital, 95th and Martinazzi
B6	Better accommodate pedestrians on the bridges
B15	Add bicycle lanes on Boones Ferry Rd to Day Rd

Projects NOT to Forward into the TSP

No.	Project Description
B3	Improve Tualatin-Sherwood Rd for bicyclists and pedestrians (Tonquin Trail serves as the recommendation instead)
B7	Build a raised intersection at Seneca and Nyberg
B10	Add bike box on Boones Ferry near Sweek House
B17	Create a bike path to Old Town Sherwood as this area develops
B18	Add a grade-separated crossing over 99W
B19	Add bike detection loops at major intersections

Projects for Further Refinement

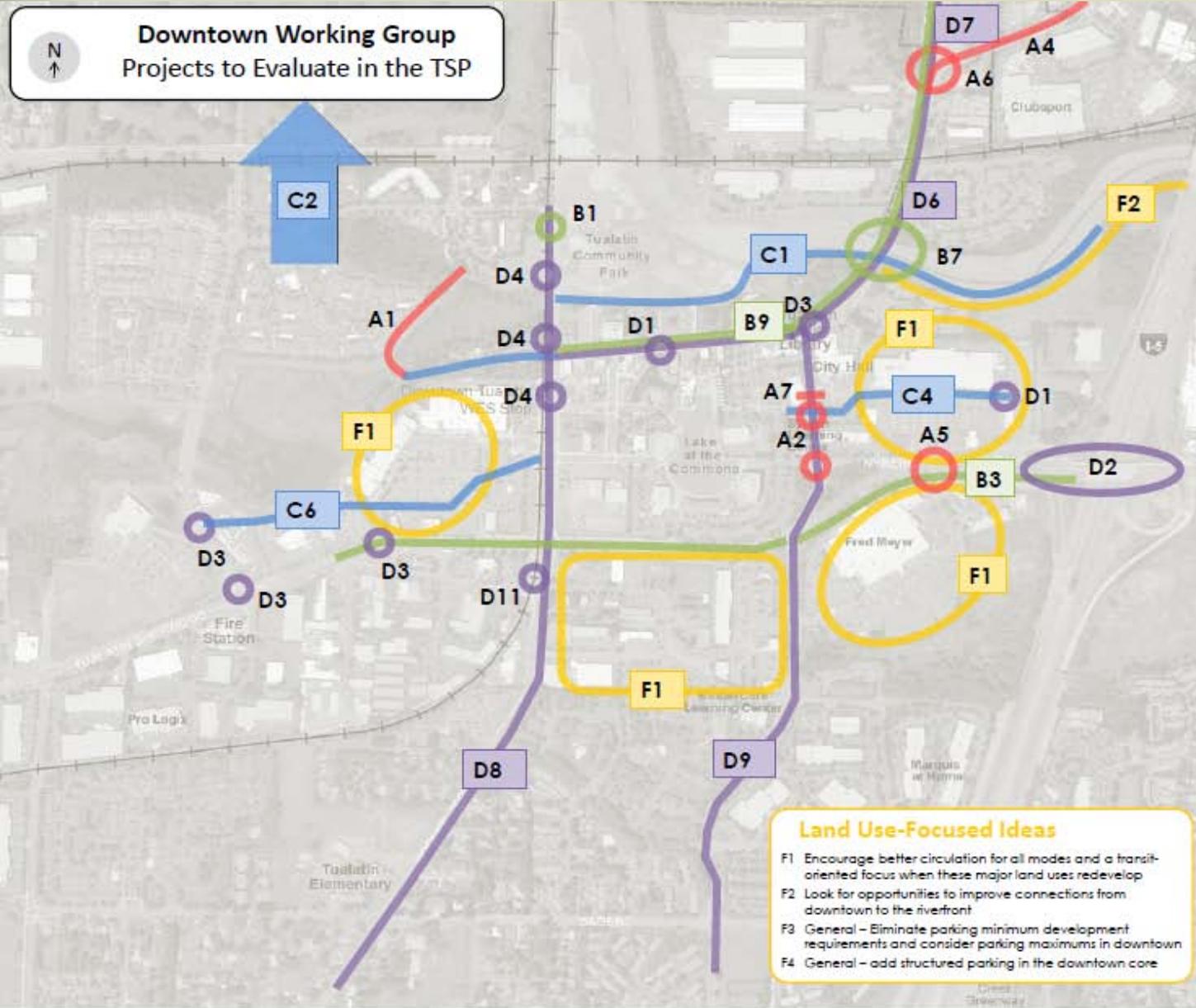
No.	Project Description	Refinement Topic Area
B5	Improve bicycle facility treatments in downtown core	Connectivity in Downtown
B14	Improve pedestrian crossing along Boones Ferry Rd	Boones Ferry Road
B21	Allow wider sidewalks for strolling and outdoor cafes	Connectivity in Downtown
C2	Build pedestrian and bicycle bridges over the Tualatin River	North/South Connectivity



Downtown

Downtown

**Downtown Working Group
Projects to Evaluate in the TSP**



- Safety-Focused Ideas**
- A1 Upgrade bridge surface and improve illumination along path near Hedges Creek
 - A2 Consider raised intersections for pedestrians at Seneca St and Nyberg St
 - A4 Reduce speeds near Bridgeport Village
 - A5 Redesign Fred Meyer & Kmart intersection – upgrade the pedestrian connection
 - A6 Add a roundabout at Lower Boones Ferry Rd and Boones Ferry Rd
 - A7 Add a pedestrian island on Martinazzi Ave north of Seneca St

- Congestion-Focused Ideas**
- B1 Improve circulation into and out of the park
 - B3 Add an eastbound lane on Tualatin-Sherwood Rd from Martinazzi Ave to I-5
 - B7 Replace/widen bridge on Boones Ferry Rd
 - B9 Widen Boones Ferry Rd to 5 lanes
 - B10 Widen Tualatin-Sherwood Rd through downtown

- Connectivity-Focused Ideas**
- C1 Build a trail from Boones Ferry Rd to the downtown core along the river to the Tualatin River Greenway
 - C2 Look for ways to provide north-south connectivity over Tualatin River for vehicles
 - C4 Create a grid system near the Kmart, connect to Seneca St
 - C5 General-improve street connectivity in downtown
 - C6 Create a public road between Boones Ferry Rd and SW 90th Ave

- Bicycle/Pedestrian-Focused Ideas**
- D1 Redesign pedestrian crossing, consider flashing lights
 - D2 Upgrade Nyberg interchange to improve the crossing experience for bicyclists
 - D3 Optimize intersections to reduce conflicts between cars and pedestrians (Tualatin-Sherwood Rd & Martinazzi Ave and Boones Ferry Rd)
 - D4 Add pedestrian crossings along Boones Ferry Rd
 - D6 Improve sidewalks and bicycle lanes Boones Ferry Rd
 - D7 Improve bicycle and pedestrian facilities near Bridgeport Village
 - D8 Provide signage and/or other visual cues to motorists to accommodate bicycles on Boones Ferry Rd
 - D9 Add bicycle lane or “Share the Road” signs on Martinazzi Ave
 - D10 General – coordinate traffic signal timing to accommodate pedestrians in downtown
 - D11 Focused pedestrian crossing on Boones Ferry Road at Tonka

- Land Use-Focused Ideas**
- F1 Encourage better circulation for all modes and a transit-oriented focus when these major land uses redevelop
 - F2 Look for opportunities to improve connections from downtown to the riverfront
 - F3 General – Eliminate parking minimum development requirements and consider parking maximums in downtown
 - F4 General – add structured parking in the downtown core

Projects to Forward into the TSP

No.	Project Description
A1	Upgrade bridge surface, improve illumination along path in back of Haggens
A5	Redesign Fred Meyer to Kmart intersection (including pedestrian crossing)
B1	Rethink access between Tualatin Road and Tualatin Community Park
B3	Add eastbound lane on Tualatin-Sherwood from Martinazzi to I-5
B7	Replace/widen Boones Ferry Road bridge over Tualatin River
C1	Build trail along river from Boones Ferry to downtown, extend to greenway
C4	Create grid system near Kmart upon redevelopment, connect to Seneca
D2	Upgrade Nyberg interchange for bicyclist safety
D6	Improve sidewalks and bicycle lane at Boones Ferry to Lower Boones Ferry
D7	Bike and pedestrian treatments near Bridgeport Village
D8	Provide signage to accommodate bicycles on Boones Ferry
D9	Add bicycle lane on Martinazzi north of Warm Springs
F1	Encourage multimodal circulation and transit-oriented redevelopment
F2	Look for opportunities to open downtown's connection to the riverfront
F4	Add structured parking in the downtown core

Projects NOT to Forward into the TSP

No.	Project Description
A2	Consider raised intersections on Martinazzi
A4	Reduce speeds near Bridgeport Village
A7	Add pedestrian island on Martinazzi Ave north of Seneca
C6	Create road connections between Boones Ferry Rd and SW 90th Ave
D4	Add pedestrian crossing at the WES stop (Seneca)
D10	Coordinate traffic signal timing to accommodate pedestrians
D11	Add focused pedestrian crossing over Boones Ferry Road at Tonka
F3	Eliminate parking minimum development requirements and consider parking maximums

Projects for Further Refinement

No.	Project Description	Refinement Topic Area
A6	Add roundabout at Boones Ferry and Lower Boones Ferry Road	Boones Ferry Road
B9	Widen Boones Ferry Rd	Boones Ferry Road
B10	Widen Tualatin-Sherwood Rd	Tualatin Sherwood Road
C2	Provide north-south connectivity over Tualatin River for vehicles	North/South Connectivity
C5	Improve downtown core street connectivity	Connectivity in Downtown
D1	Redesign pedestrian crossings, consider flashing lights	Connectivity in Downtown
D3	Optimize intersections to reduce conflicts along Boones Ferry and Tualatin Sherwood Roads	Boones Ferry Road, Tualatin Sherwood Road



Industrial and Freight

Industrial and Freight

Existing Plans

- P1 Connect Myslony and Avery Streets to Tualatin-Sherwood Rd (2001 TSP)
- P2 Widen McEwan Rd to 3-lanes for bikes and pedestrians (2001 TSP)
- P3 SW Tualatin Concept Plan roadways (2005)
- P4 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal (2001 TSP)

Industrial and Freight Working Group Projects to Evaluate in the TSP

Congestion-Focused Ideas

- A1 Add a signal or roundabout at Sagerst St and Martinazzi Ave
- A2 Divert truck traffic from Tualatin Rd to Herman Rd
- A5 Extend 124th Ave and connect to I-5 south of Tualatin
- A6 Provide coordinated signal timing and access management along major arterials.
- A7 Remove northbound right turn light on Boones Ferry Rd
- A9 Improvements to help mobility of through-traffic (Tualatin-Sherwood Rd)
- A11 Improve turn radius at Avery St and Teton Ave, look at congestion
- A12 Synchronize turn signals to/from Boones Ferry Rd to Tualatin-Sherwood Rd; coordinate with the train signal
- A13 Widen Boones Ferry Rd through downtown

Transit-Focused Ideas

- B1 General - Add Saturday, Sunday, late evening transit shuttle
- B2 Add rail station with easy offload and access for industry
- B3 General - Provide local loop bus

Connectivity-Focused Ideas

- C3 Provide north-south vehicle connectivity over Tualatin River
- C4 Add a right turn from Teton Ave to Tualatin-Sherwood Rd
- C5 Extend 65th Ave north
- C6 Improve 115th Ave
- C7 Improve cross-section on Herman Rd
- C8 Add signal to Tualatin Rd and Boones Ferry Rd;
- C9 Consider removing trucks/adding truck info signs along 108th/105th Aves. .
- C10 Extend 95th Ave north to Tualatin Rd
- C12 Create an east/west connection across I-5 (near Greenhill Rd)
- C13 General- Provide travel options by improving connectivity in the roadways system
- C14 Widen Myslony St to standards - reduce on-street parking (AW Idea)*
- C15 Upgrade Cipole Rd to standards with sidewalks and bike lanes (AW Idea)
- C16 Improve Tonquin Rd between Oregon St and Waldo Way (AW Idea)
- C17 Improve circulation east of the Bridgeport/I-5 Interchange (AW Idea)

Other Ideas

- D1 General - Coordinate freight receiving/shipping times
- D2 Add vision & sound walls; reduce cut-through traffic
- D3 General - Provide incentives to telecommute
- D5 Add a lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage. Add traffic camera for red light violations.
- D6 Improve signs to direct traffic to correct street
- D7 Add traffic signal at 97th Ave and Tualatin-Sherwood Rd
- D8 Improve visibility, restrict left turns, add signal on from 108th Ave onto Tualatin Rd
- D9 Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd
- D10 Improve Tualatin-Sherwood Rd/Martinazzi Ave signal timing/add a red light camera
- D11 Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd
- D12 General - Make "Truck Route" signs larger
- D13 Add traffic calming on Tualatin Rd
- D14 General - Add measures to reduce truck traffic on local and minor streets - including traffic calming
- D15 Improve turning radius from Herman Rd northbound onto 108th Ave (AW Idea)
- D16 Increase speed limit to 40 or 45 MPH on 124th Ave (AW Idea)
- D17 Reconfigure the intersection of 115th Ave and Tualatin-Sherwood Rd (AW Idea)
- D18 Improve turning radius from Tualatin-Sherwood Rd to Cipole Rd (AW Idea)
- D19 Improve northbound right and left turns onto Herman Rd (AW Idea)
- D20 Improve southbound left turns at 63rd Ave and Lower Boones Ferry Rd (AW Idea)
- D21 Improve southbound left turns from Jurgens and 106th Aves onto Tualatin Rd (AW Idea)
- D22 Improve 65th Ave south across I-205; widen and address dip in the roadway (AW Idea)
- D23 General - ensure that future roundabout designs can accommodate larger trucks (AW Idea)

* (AW Idea) indicates that this project was suggested through conversations with Allied Waste drivers

Projects to Forward into the TSP (1 of 2)

No.	Project Description
A1	Add a signal or roundabout at Sagert/ Martinazzi
A5	Extend 124th Ave to the south
A6	Provide coordinated signal timing and access management along major arterials
A11	Address congestion on Avery and Teton
A12	Synchronize turn signals to/from Boones Ferry to Tualatin-Sherwood; coordinate with the train signal
B1	Expand shuttle for industrial and manufacturing workers during the day – consider charging fares
B3	Provide a loop bus route serving local residents
C5	Extend 65th Ave north
C9	Consider removing trucks/adding truck info signs along 108th/105th Aves
C12	Create an east/west connection across I-5 (near Greenhill Rd)

Projects to Forward into the TSP (2 of 2)

No.	Project Description
D1	Coordinate freight receiving/ shipping times
D3	Provide incentives to telecommute
D5	Add eastbound lane on Tualatin-Sherwood from Martinazzi to I-5
D11	Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd
D14	Add measures to reduce truck traffic on local and minor collectors
D22	Improve 65th Ave south across I-205; widen and address dip in the roadway
D23	Ensure that future roundabout designs can accommodate larger trucks

Urban Upgrade Projects

No.	Project Description
C14	Widen Myslony St to standards - reduce on-street parking
C15	Upgrade Cipole Rd to standards with sidewalks and bike lanes
C16	Improve Tonquin Rd between Oregon St and Waldo Way

Projects NOT to Forward into the TSP

No.	Project Description
A7	Remove NB right turn light on Boones Ferry
C4	Add a left turn from Teton to Tualatin Rd
C6	Improve 115th Ave
C8	Add signal to Tualatin and Boones Ferry intersection
C10	Extend 95th Ave north to Tualatin Rd
C13	Provide travel options by improving connectivity in the roadway system
D2	Add vision and sound walls; reduce cut-through traffic
D6	Improve signs to direct traffic to correct street
D10	Improve Tualatin-Sherwood and Martinazzi signal timing
D12	Make “Truck Route” signs larger
D16	Increase speed limit to 40 or 45 MPH on 124th Ave
D20	Improve southbound left turns at 63rd and Lower Boones Ferry

Projects for Further Refinement (1 of 2)

No.	Project Description	Refinement Topic Area
B2	Add rail station with easy offload and access for industry in the west part of town	Stand Alone
C17	Improve circulation east of the Bridgeport/ I-5 Interchange	Stand Alone
A2	Discourage through and truck traffic along Tualatin while encouraging through and truck traffic along Herman	Herman and Tualatin Options
A9	Improvements to help mobility of through-traffic on Tualatin-Sherwood Rd	Tualatin Sherwood Road
A13	Widen Boones Ferry Rd through downtown	Boones Ferry Road, North/South Connectivity
C3	Provide north-south vehicle connectivity over Tualatin River	North/South Connectivity
C7	Improve cross-section on Herman Rd	Herman and Tualatin Options
D7	Add traffic signal at 97th Ave and Tualatin-Sherwood	Tualatin Sherwood Road

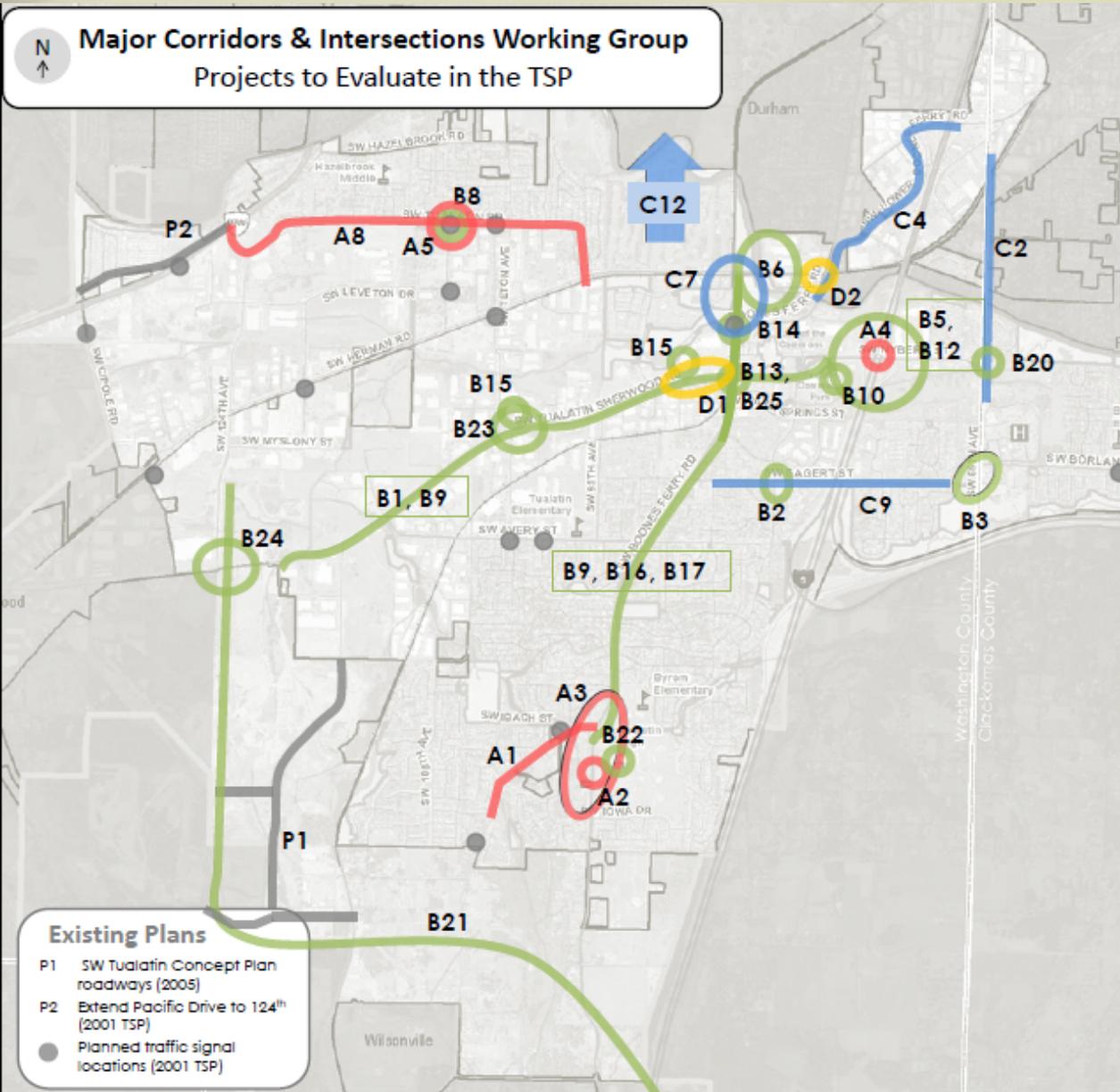
Projects for Further Refinement (2 of 2)

No.	Project Description	Refinement Topic Area
D8	Improve visibility, add signal restrict left turns from 108th onto Tualatin	Herman and Tualatin Options
D9	Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd	Herman and Tualatin Options
D13	Add traffic calming on Tualatin Road	Herman and Tualatin Options
D15	Improve turning radius from Herman Rd northbound onto 108th Ave	Herman and Tualatin Options
D17	Reconfigure the intersection of 115th and Tualatin-Sherwood	Tualatin Sherwood Road
D18	Improve turning radius from Tualatin-Sherwood to Cipole	Tualatin Sherwood Road
D19	Improve NB right and left turns onto Herman	Herman and Tualatin Options
D21	Improve SB left turns from Jurgens and 106th onto Tualatin	Herman and Tualatin Options



Major Corridors and Intersections

Major Corridors and Intersections



Major Corridors & Intersections Working Group
Projects to Evaluate in the TSP

Existing Plans

- P1 SW Tualatin Concept Plan roadways (2005)
- P2 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal locations (2001 TSP)

Safety-Focused Ideas

- A1 Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd
- A2 Add traffic signal at Tualatin High School
- A3 Consistent speed zones for both Tualatin High School & Byron Elementary School
- A4 Improve the sight distance at the I-5-Nyberg Rd interchange
- A5 Add traffic signal on Tualatin Rd at 108th Ave
- A6 General – consistent use of yellow turn signals on all traffic signals
- A8 Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd. Make residential access easier.

Congestion-Focused Ideas

- B1 Widen Tualatin-Sherwood Rd
- B2 Signal or roundabout at Sagert St and Martinazzi Ave
- B3 Realign Sagert St/Borland Rd intersection
- B5 Restrict right turn on red at Nyberg Interchange
- B6 Rethink access in vicinity of Tualatin Community Park
- B8 Prohibit left turns out of 108th Ave or remove trees in the southwest corner
- B9 Coordinate signal timing on Boones Ferry Rd and Tualatin-Sherwood Rd; widen Boones Ferry Rd
- B10 Redesign the intersection at the Fred Meyer (from Nyberg Rd)
- B12 Make two right turn lanes from I-5 north onto Nyberg Rd
- B13 Extend the northbound left turn lane and create a southbound right turn lane on Boones Ferry Rd at Tualatin-Sherwood Rd to reduce backup from WES train; add red light cameras
- B14 Reconfigure Boones Ferry Rd at Tualatin Rd
- B15 Add a 4-way stop by 90th Ave at Kaiser
- B16 Add bus pullouts on Boones Ferry Rd
- B17 Widen Boones Ferry Rd
- B20 Roundabout or signal intersection at Nyberg Rd/65th Ave; keep Nyberg Rd 2 lanes
- B21 Extend 124th Ave and connect to I-5 and Tonquin Rd
- B22 Address congestion caused by high school
- B23 Add a dedicated right turn lane on Teton Ave at Tualatin-Sherwood Rd
- B24 Add right turn lane on Tualatin-Sherwood Rd at 124th Ave

Connectivity-Focused Ideas

- C2 Extend 65th Ave north
- C4 Improve traffic flow on Lower Boones Ferry Rd near Bridgeport Village into downtown Tualatin
- C7 Revise connection between Tualatin Rd and Boones Ferry Rd near the railroad tracks
- C9 Widen Sagert to 2 lanes in each direction
- C12 Provide north-south connectivity over Tualatin River for vehicles

Other Ideas

- D1 Add lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Install traffic camera for signal violations.
- D2 Better signs needed to direct traffic to correct street

Projects to Forward into the TSP

No.	Project Description
A1	Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd
A3	Consistent speed zones for Tualatin High School and Byrom Elementary School
A6	Consistent use of yellow turn signals at traffic signals
B2	Signal or roundabout at Sagert and Martinazzi
B6	Rethink access between Tualatin Road and Tualatin Community Park
B8	Prohibit left turns out of 108th Ave <u>or</u> remove trees in the southwest corner
B9	Coordinate signal timing on Boones Ferry Rd
B10	Redesign Nyberg/Fred Meyer intersection and improve pedestrian crossing
B16	Add bus pullouts on Boones Ferry Rd
B21	Extend 124th Ave to south
B23	Add a dedicated right turn lane on Teton at Tualatin-Sherwood
C2	Extend 65th Ave to the north
C4	Improve traffic flow on Lower Boones Ferry between Bridgeport and downtown
D1	Add eastbound lane on Tualatin-Sherwood from Martinazzi to I-5

Projects NOT to Forward into the TSP

No.	Project Description
A2	Add traffic signal at Tualatin High School
B3	Realign Sagert /Borland to one intersection
B14	Reconfigure Boones Ferry at Tualatin Road
B15	Add a 4-way stop by 90th Ave at Kaiser
B20	Roundabout or signal at Nyberg and 65 th intersection
B22	Address congestion caused by high school
C7	Revise connection between Tualatin and Boones Ferry near the railroad tracks
C9	Widen Sagert to 2-lanes each way
D2	Better signs needed to direct traffic to correct street

Projects for Further Refinement

No.	Project Description	Refinement Topic Area
A4	Improve sight distance at I-5 and Nyberg Rd interchange	Nyberg Interchange
A5	Add traffic signal on Tualatin Rd at 108th	Herman and Tualatin Options
A8	Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd	Herman and Tualatin Options
B1	Widen Tualatin-Sherwood Rd	Tualatin Sherwood Road
B5	Restrict right turn on red at Nyberg Interchange	Nyberg Interchange
B12	Make two right turn lanes from I-5 north onto Nyberg Rd	Nyberg Interchange
B13	Extend NB left turn and create a SB right turn lane on Boones Ferry at Tualatin-Sherwood to reduce backup from WES train	North/South Connectivity
B17	Widen Boones Ferry Rd at the south end of the City	Boones Ferry Road
B24	Add right turn lane on Tualatin-Sherwood at 124th	Tualatin Sherwood Road
C12	Look for ways to provide north-south connectivity over Tualatin River for vehicles	North/South Connectivity



Neighborhood Livability

Neighborhood Livability

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Neighborhood Livability Working Group
Projects to Evaluate in the TSP

Safety-Focused Ideas

- A1 Discourage/restrict through & truck traffic along Tualatin Rd while encouraging a shift to Herman Rd & Leveton Rd. Make residential access along Tualatin Rd easier.
- A3 Reroute school buses away from Tualatin Community Park and two railroad crossings
- A4 Add a roundabout at Boones Ferry Rd & Norwood Rd
- A5 Make Boones Ferry Rd more pedestrian-friendly, including the creation of one consistent speed limit, without widening
- A6 Improve intersection at 108th Ave and Tualatin Rd
- A8 Reduce speed, possibly add trail through wooded area.
- A9 Eliminate free right turns

Congestion-Focused Ideas

- B1 Add a signal or roundabout at Sager St and Martinazzi Ave
- B2 Add a dedicated right turn lane into apartments near Nyberg Woods Shopping Center
- B3 Realign Sager St and Borland Rd intersection (roundabout or signal)
- B4 Improve intersection at Avery St and Teton Ave
- B5 Address congestion caused by high school
- B6 Adjust signal timing to reflect traffic needs
- B8 Add right turn lane from Tualatin-Sherwood Rd to northbound 124th Ave

Connectivity-Focused Ideas

- C1 Connect 124th Ave to Tonquin Rd
- C2 Consider removing trucks/adding truck info signs along 108th/105thAves.
- C3 Balance the needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school
- C6 Create a street between Boones Ferry Rd and Bridgeport Rd
- C7 Extend 65th Avenue to the north

Bicycle/Pedestrian-Focused Ideas

- D2 Consider pedestrian islands on Boones Ferry Rd, near Byron Elementary and Tualatin High schools
- D3 Provide a multi-use path along the river
- D4 Connect sidewalk on east side of 65th Ave
- D5 Repair gap in sidewalk on the south side of Borland Rd
- D6 Add multi-use path as part of Tualatin Trail
- D7 Provide focused pedestrian crossing improvements (may need signal)
- D8 Add bike facilities & continuous sidewalks
- D9 Build the Tonquin Trail
- D10 Provide neighborhood connections to Tonquin Trail
- D11 Connect to Tualatin Path
- D12 General - add benches for walkers throughout the city
- D13 Create a system of bicycle boulevards (bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)

Transit-Focused Ideas

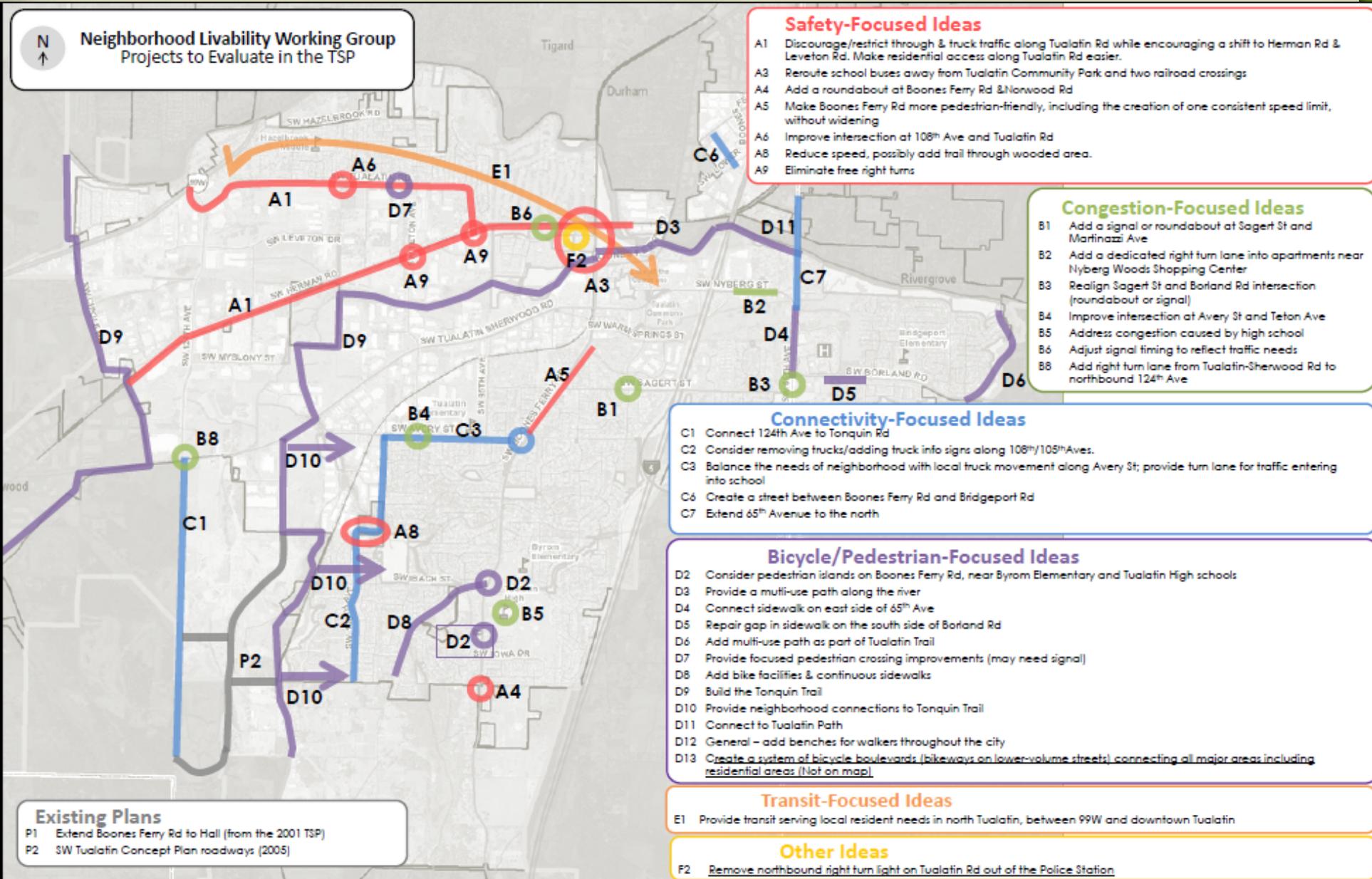
- E1 Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

Other Ideas

- F2 Remove northbound right turn light on Tualatin Rd out of the Police Station

Existing Plans

- P1 Extend Boones Ferry Rd to Hall (from the 2001 TSP)
- P2 SW Tualatin Concept Plan roadways (2005)



Projects to Forward into the TSP (1 of 2)

No.	Project Description
A3	Reroute school buses away from Tualatin Community Park and railroad crossings
A8	Reduce speed, possibly add trail through wooded area
B1	Add signal or roundabout at Sagert and Martinazzi
B4	Improve intersection at Avery and Teton
C1	Extend 124th Ave to south
C2	Consider removing trucks/adding truck info signs along 108th/105th Aves
C3	Balance needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school
C7	Extend 65th Ave to the north
D3	Provide a multi-use path along the river
D4	Multi-use path on 65th Ave between Borland and Nyberg
D5	Repair sidewalk gap on south side of Borland

Projects to Forward into the TSP (2 of 2)

No.	Project Description
D6	Add multi-use path as part of Tualatin Trail
D9	Build the Tonquin Trail
D10	Connect Tonquin trail with neighborhoods
D11	Connect to Tualatin Path
D12	Add benches for walkers throughout city
D13	Create a bicycle boulevard system connecting major areas
E1	Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

Projects NOT to Forward into the TSP

No.	Project Description
D8	Add bike facilities and continuous sidewalks along Graham's Ferry Road (only as part of an urban upgrade)
B3	Realign Sagert /Borland to one intersection
B5	Address congestion caused by high school
C6	Create a street between Boones Ferry Rd and Bridgeport Rd
F2	Remove right turn light in the northbound direction on Tualatin Rd out of the Police Station

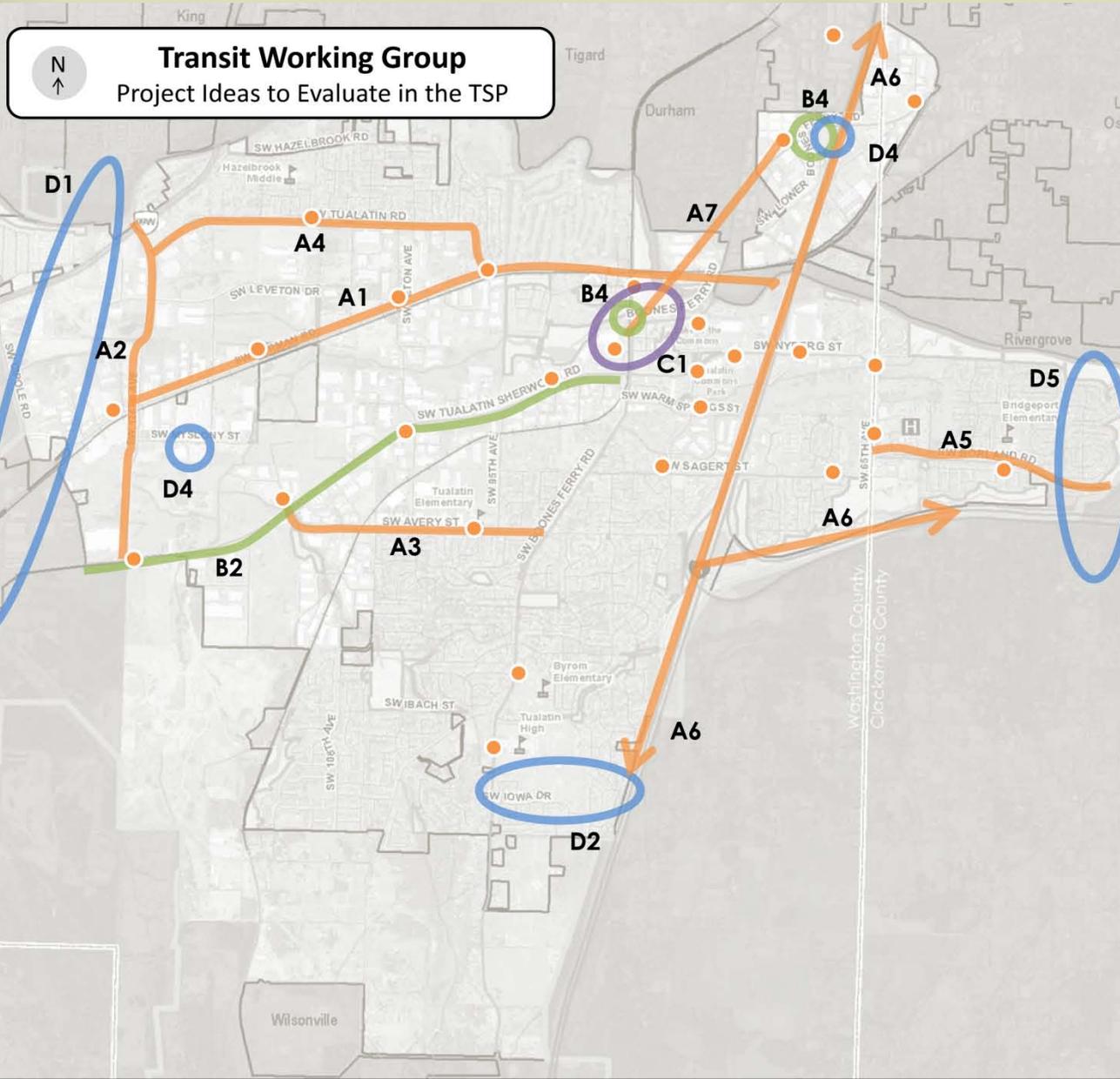
Projects for Further Refinement

No.	Project Description	Refinement Topic Area
A1	Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd	Herman and Tualatin Options
A4	Add a roundabout at Boones Ferry and Norwood	Boones Ferry Road
A5	Make Boones Ferry Rd more pedestrian-friendly	Boones Ferry Road
A6	Improve intersection at 108th and Tualatin	Herman and Tualatin Options
A9	Eliminate free right turns – on Herman Rd at Teton Ave and Tualatin Rd	Herman and Tualatin Options
B2	Add a dedicated right turn lane into apartments near Nyberg Woods Shopping Center	Nyberg Interchange
B6	Adjust signal timing to give priority to Tualatin Road through traffic	Tualatin Sherwood Road
B8	Add right turn lane on Tualatin-Sherwood at 124th	Tualatin Sherwood Road
D2	Add pedestrian islands on Boones Ferry, near Byrom ES and Tualatin HS	Boones Ferry Road
D7	Provide focused pedestrian crossing improvements along Tualatin Road	Herman and Tualatin Options



Transit

Transit - Projects to Evaluate



Bus Service-Focused Ideas

- A1 Provide bus transit service on Herman Road
 - A2 Provide bus transit service on 124th Street
 - A3 Provide bus transit service on Avery Street
 - A4 Provide bus transit service on Tualatin Road between downtown and 99W
 - A5 Extend bus service to east Tualatin
 - A6 Improve bus service between Tualatin and Salem
 - A7 Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
 - A8 Provide a loop bus route around the city*
 - A10 Expand existing on-call shuttle and charge fares*
 - A12 General – need extended service hours for all transit*
 - A13 General – use more energy efficient buses*
 - A14 Coordinate bus schedules with WES schedule*
 - A16 Add stops on higher-volume routes*
- Potential bus stop locations connecting major employers and activity centers

*not shown on map

Rail Service-Focused Ideas

- B2 Provide rail or high capacity bus transit service on Tualatin-Sherwood Road (towards Sherwood)
- B4 Build elevated pedestrian bridge to connect park-and-ride with shopping at Bridgeport Village
- B10 General – Add more spaces for bicycles on WES trains*

Land Use-Focused Ideas

- C1 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Park-and-Ride-Focused Ideas

- D1 Look for potential park-and-ride locations in west Tualatin
- D2 Look for potential park-and-ride locations in south Tualatin
- D3 Add parking capacity at Tualatin Park-and-Ride (near Bridgeport Village)
- D4 Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots
- D5 Add a park-and-ride location in east Tualatin

Projects to Forward into the TSP

No.	Project Description
A2	Provide bus transit service on 124th Street
A3	Provide bus transit service on Avery Street
A5	Extend bus service to east Tualatin
A7	Explore a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
A8	Provide a loop bus route serving local residents
A10	Expand shuttle for industrial and manufacturing workers during the day – consider charging fares
A12	General – need extended service for all transit
B2	Provide high capacity transit service on Tualatin-Sherwood Road
C1	Make the WES station a central focus of downtown and the main transit center.
D1	Look for potential park-and-ride locations in west Tualatin
D2	Look for potential park-and-ride locations in south Tualatin
D3	Add parking capacity at Tualatin Park-and-Ride - Potential structure

Projects NOT to Forward into the TSP

No.	Project Description
A6	Provide express bus service between Tualatin and Salem
A13	General – use more energy efficient buses
A14	Coordinate bus schedules with WES schedule
A16	Add stops on higher volume routes
B1	Add more bicycle storage at the WES station
B4	Build an elevated pedestrian bridge to connect the Tualatin park-and-ride with shopping
D4	Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots and transfer spaces to higher utilized areas
D5	Add a park-and-ride in east Tualatin

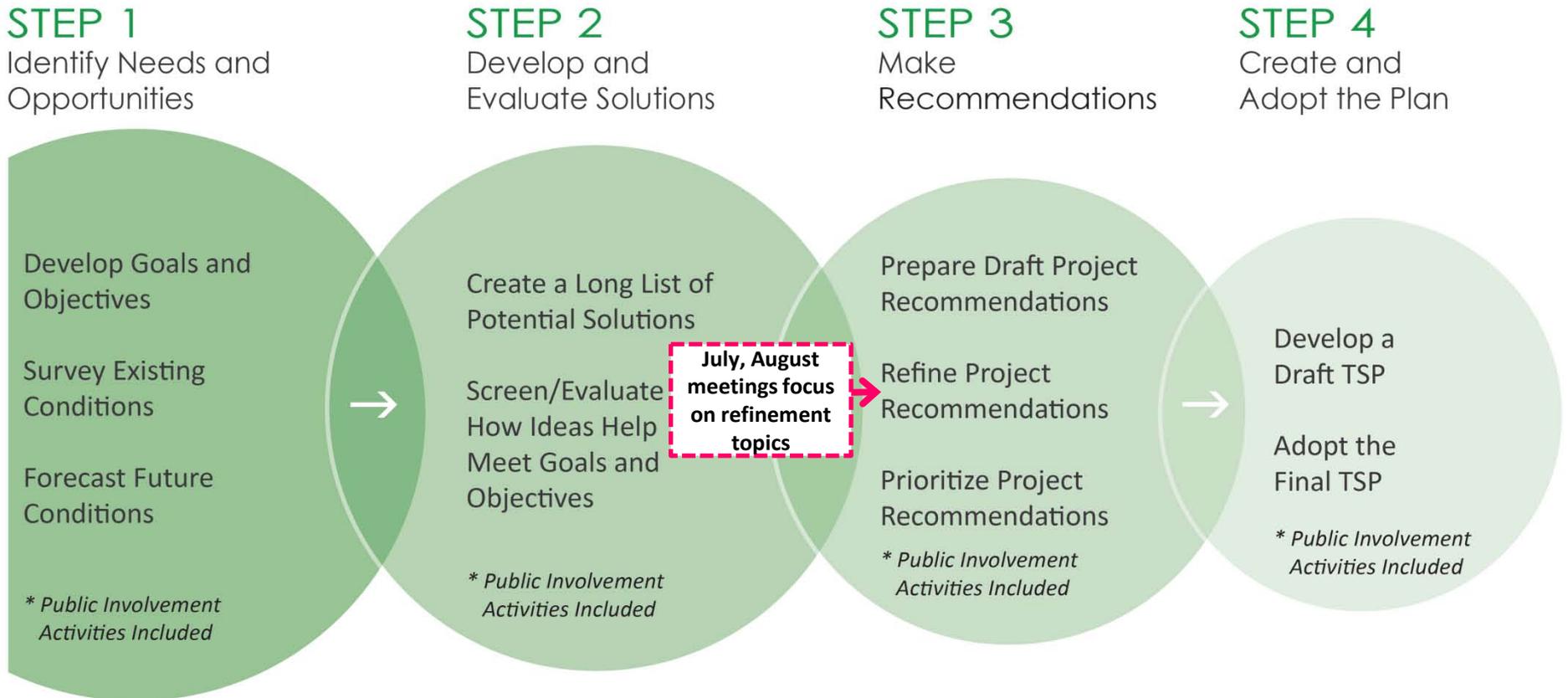
Projects for Further Refinement

No.	Project Description	Refinement Topic Area
A1	Provide bus transit service on Herman Road	Herman and Tualatin Options
A4	Provide bus transit service on Tualatin Road between downtown and 99W	

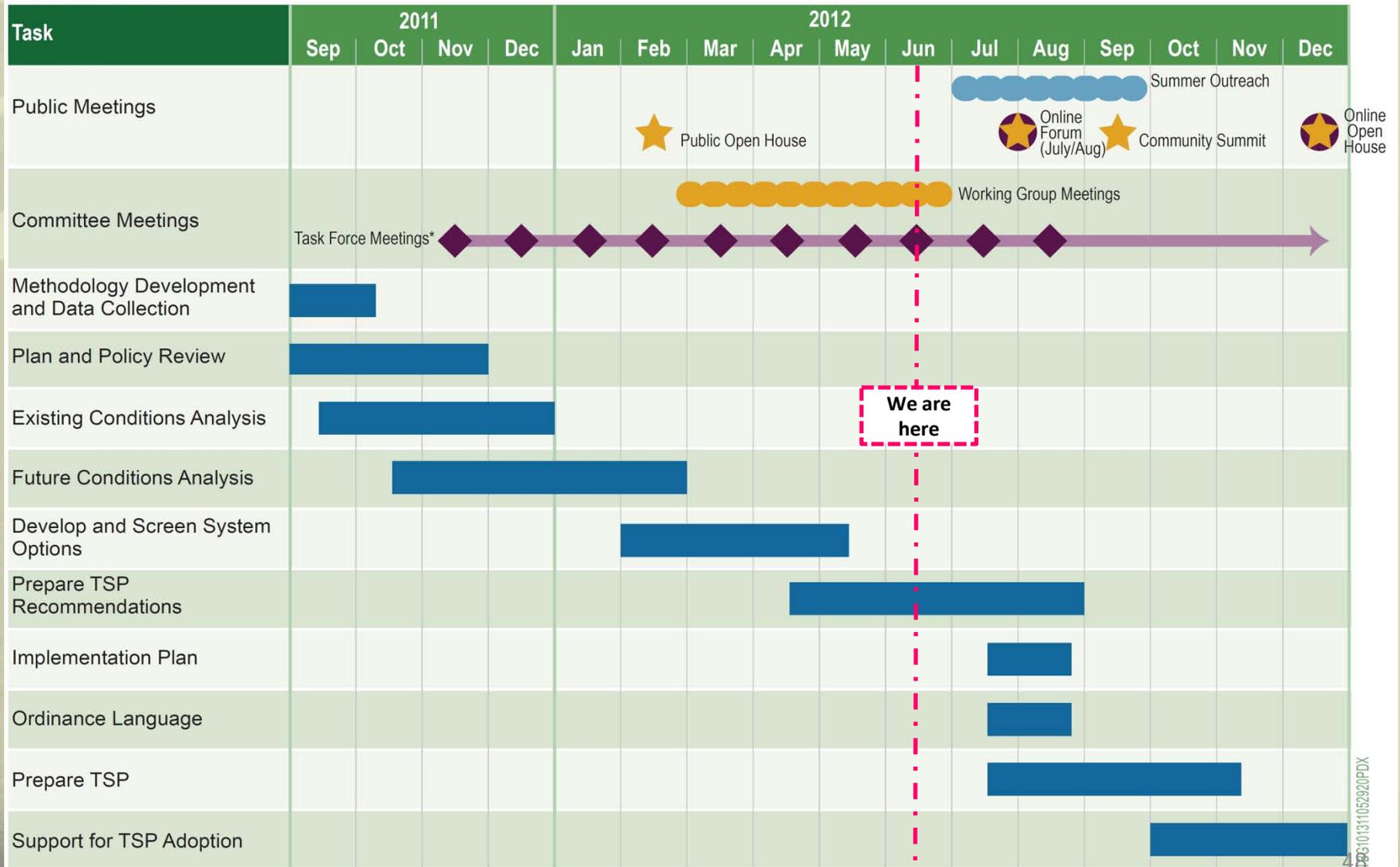
What Happens Next?

- Online forum goes live July 1st
- Technical team reviews six refinement areas
 - Organize discrete project ideas into packages
 - Up to three alternatives per refinement area
 - Traffic (local and city-wide)
 - Geometric constraints and right of way
 - Cost
 - Environmental and policy effects
- July and August TTF meetings review/discuss findings
 - What are the benefits?
 - What are the impacts?
 - What are we willing to accept?
- Transportation Community Summit in September (draft date September 20th)

Next Two Meetings



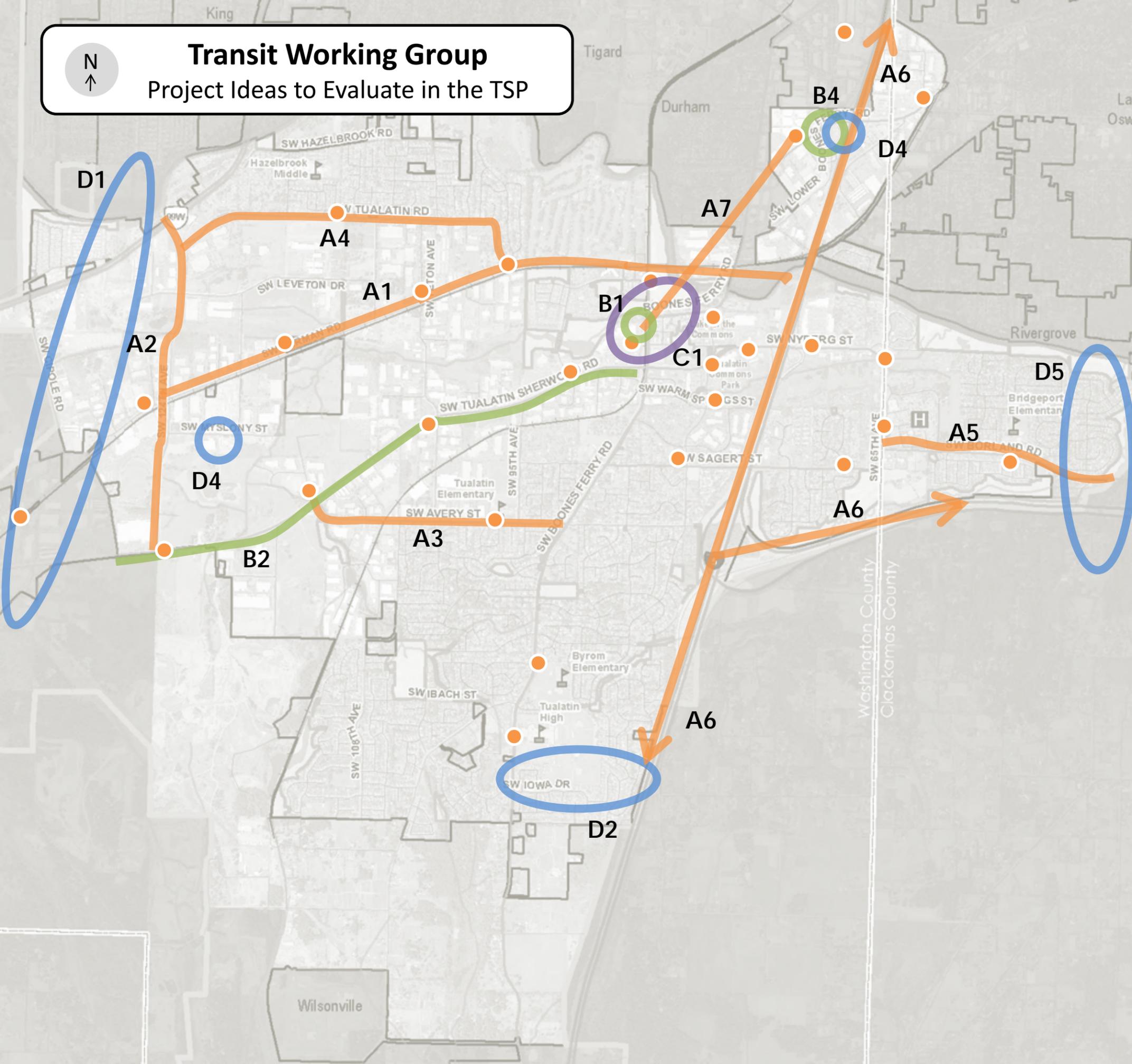
Transportation System Plan Timeline





Questions

Transit Working Group
Project Ideas to Evaluate in the TSP



Bus Service-Focused Ideas

- A1 Provide bus transit service on Herman Road
 - A2 Provide bus transit service on 124th Avenue
 - A3 Provide bus transit service on Avery Street
 - A4 Provide bus transit service on Tualatin Road between downtown and 99W
 - A5 Extend bus service to east Tualatin
 - A6 Provide express service between Tualatin and Salem
 - A7 Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
 - A8 Provide a loop bus route around the city*
 - A10 Expand existing on-call shuttle and charge fares*
 - A12 General – extend service hours for all transit*
 - A13 General – use more energy efficient buses*
 - A14 Coordinate TriMet and SMART bus schedules with WES schedule*
 - A16 Add stops on higher-volume bus routes*
- Potential bus stop locations connecting major employers and activity centers

*not shown on map

Rail Service-Focused Ideas

- B1 Add more bicycle storage at the WES Station
- B2 Provide rail or high capacity bus transit service on Tualatin-Sherwood Road (towards Sherwood)
- B4 Build elevated pedestrian bridge to connect park-and-ride with shopping at Bridgeport Village
- B10 General – Add bicycle storage at the WES Station*

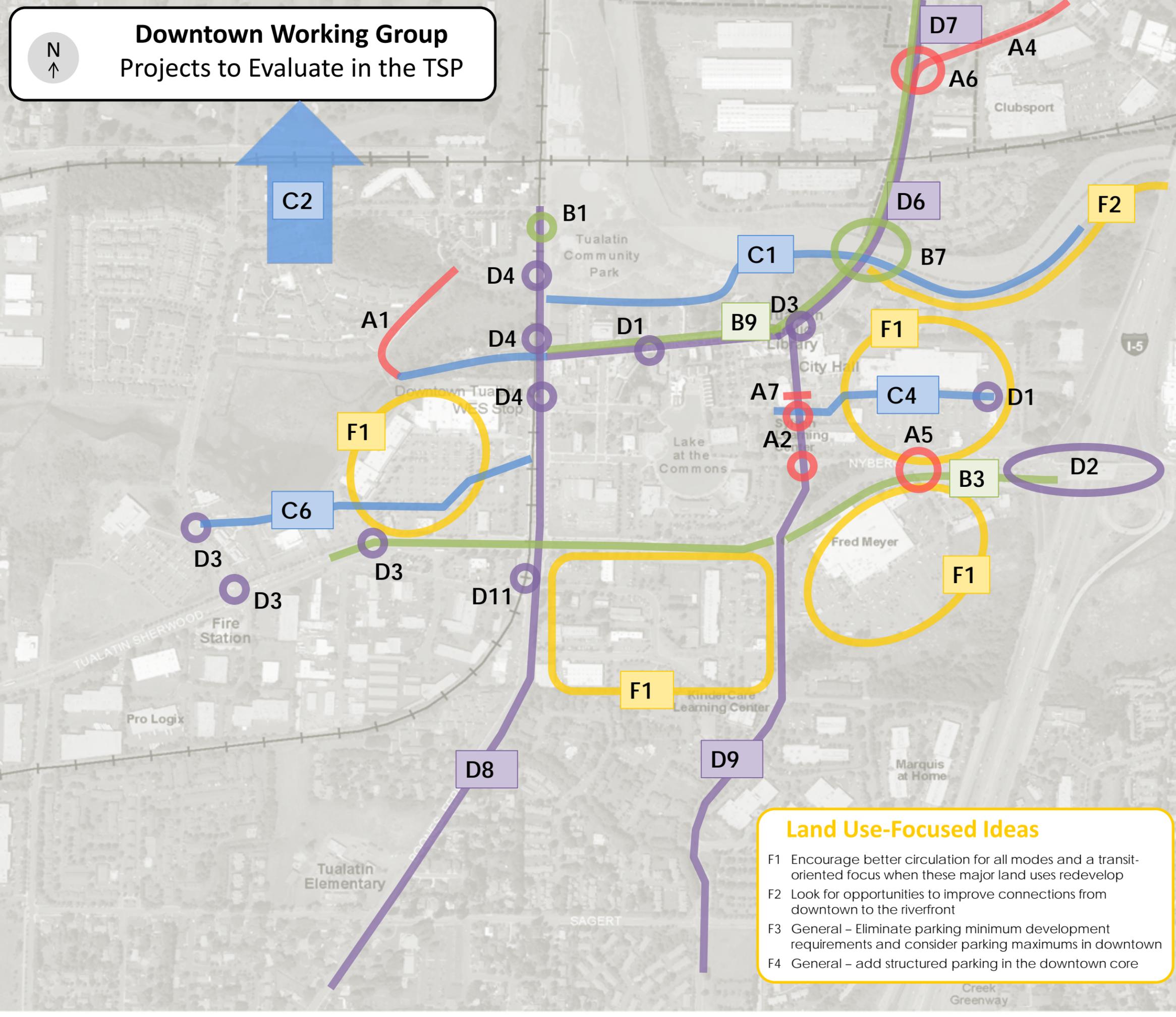
Land Use-Focused Ideas

- C1 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Park-and-Ride-Focused Ideas

- D1 Look for potential park-and-ride locations in west Tualatin
- D2 Look for potential park-and-ride locations in south Tualatin
- D3 Add parking capacity at Tualatin Park-and-Ride (near Bridgeport Village)
- D4 Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots
- D5 Add a park-and-ride location in east Tualatin

Downtown Working Group
Projects to Evaluate in the TSP



- Safety-Focused Ideas**
- A1 Upgrade bridge surface and improve illumination along path near Hedges Creek
 - A2 Consider raised intersections for pedestrians at Seneca St and Nyberg St
 - A4 Reduce speeds near Bridgeport Village
 - A5 Redesign Fred Meyer & Kmart intersection – upgrade the pedestrian connection
 - A6 Add a roundabout at Lower Boones Ferry Rd and Boones Ferry Rd
 - A7 Add a pedestrian island on Martinazzi Ave north of Seneca St

- Congestion-Focused Ideas**
- B1 Improve circulation into and out of the park
 - B3 Add an eastbound lane on Tualatin-Sherwood Rd from Martinazzi Ave to I-5
 - B7 Replace/widen bridge on Boones Ferry Rd
 - B9 Widen Boones Ferry Rd to 5 lanes
 - B10 Widen Tualatin-Sherwood Rd through downtown

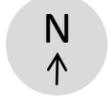
- Connectivity-Focused Ideas**
- C1 Build a trail from Boones Ferry Rd to the downtown core along the river to the Tualatin River Greenway
 - C2 Look for ways to provide north-south connectivity over Tualatin River for vehicles
 - C4 Create a grid system near the Kmart, connect to Seneca St
 - C5 General-improve street connectivity in downtown
 - C6 Create a public road between Boones Ferry Rd and SW 90th Ave

- Bicycle/Pedestrian-Focused Ideas**
- D1 Redesign pedestrian crossing, consider flashing lights
 - D2 Upgrade Nyberg interchange to improve the crossing experience for bicyclists
 - D3 Optimize intersections to reduce conflicts between cars and pedestrians (Tualatin-Sherwood Rd & Martinazzi Ave and Boones Ferry Rd)
 - D4 Add pedestrian crossings along Boones Ferry Rd
 - D6 Improve sidewalks and bicycle lanes Boones Ferry Rd
 - D7 Improve bicycle and pedestrian facilities near Bridgeport Village
 - D8 Provide signage and/or other visual cues to motorists to accommodate bicycles on Boones Ferry Rd
 - D9 Add bicycle lane or “Share the Road” signs on Martinazzi Ave
 - D10 General – coordinate traffic signal timing to accommodate pedestrians in downtown
 - D11 Focused pedestrian crossing on Boones Ferry Road at Tonka

- Land Use-Focused Ideas**
- F1 Encourage better circulation for all modes and a transit-oriented focus when these major land uses redevelop
 - F2 Look for opportunities to improve connections from downtown to the riverfront
 - F3 General – Eliminate parking minimum development requirements and consider parking maximums in downtown
 - F4 General – add structured parking in the downtown core



Downtown Working Group
Ideas that will not be evaluated



- Safety-Focused Ideas**
- A3 Add a grade separated railroad crossing on Tualatin-Sherwood Rd

- Congestion-Focused Ideas**
- B2 Provide secondary exit from park, and provide additional parking
 - B4 Add a travel lane on I-5 northbound (between Tualatin and OR 217)
 - B5 Create a one-way circulator loop roadway around downtown
 - B6 Reduce ambient noise along Boones Ferry Rd in downtown
 - B8 Add HOV lanes on Tualatin-Sherwood Rd

- Connectivity-Focused Ideas**
- C3 Connect Nyberg Rd through the Commons
 - C7 Extend Lower Boones Ferry Rd across Tualatin River

- Bicycle/Pedestrian-Focused Ideas**
- D5 Create a pedestrian skybridge that connects downtown retail businesses and the park

- Transit-Focused Ideas**
- E1 Look for opportunities to build a new park-and-ride to the west of downtown towards 99W (not shown on map) – This is included on the transit map.

E1



C7

B2

D5

B4

B6

C3

B5

B8

A3

Pro Logix

Fire Station

Tualatin Elementary

SAGERT

KinderCare Learning Center

Fred Meyer

Marquis at Home

Community Christian School

Saum Creek Greenway

Tualatin Community Park

Tualatin Public Library

City Hall

Sylvan Learning Center

NYBERG

Clubsport

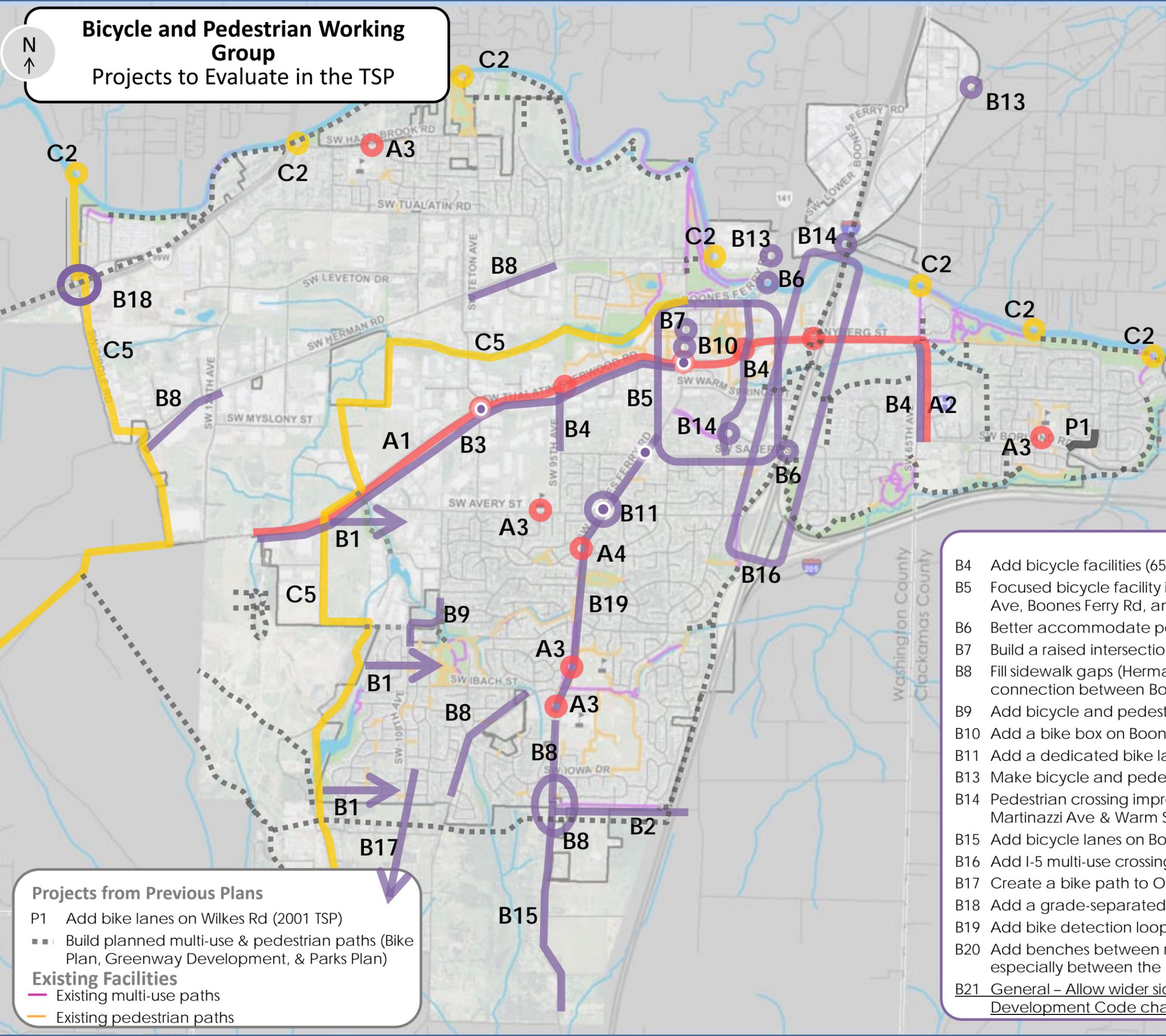
Downtown Tualatin WES Stop

ROONE FERRY

TUALATIN SHERWOOD

BOONES FERRY

Bicycle and Pedestrian Working Group
Projects to Evaluate in the TSP



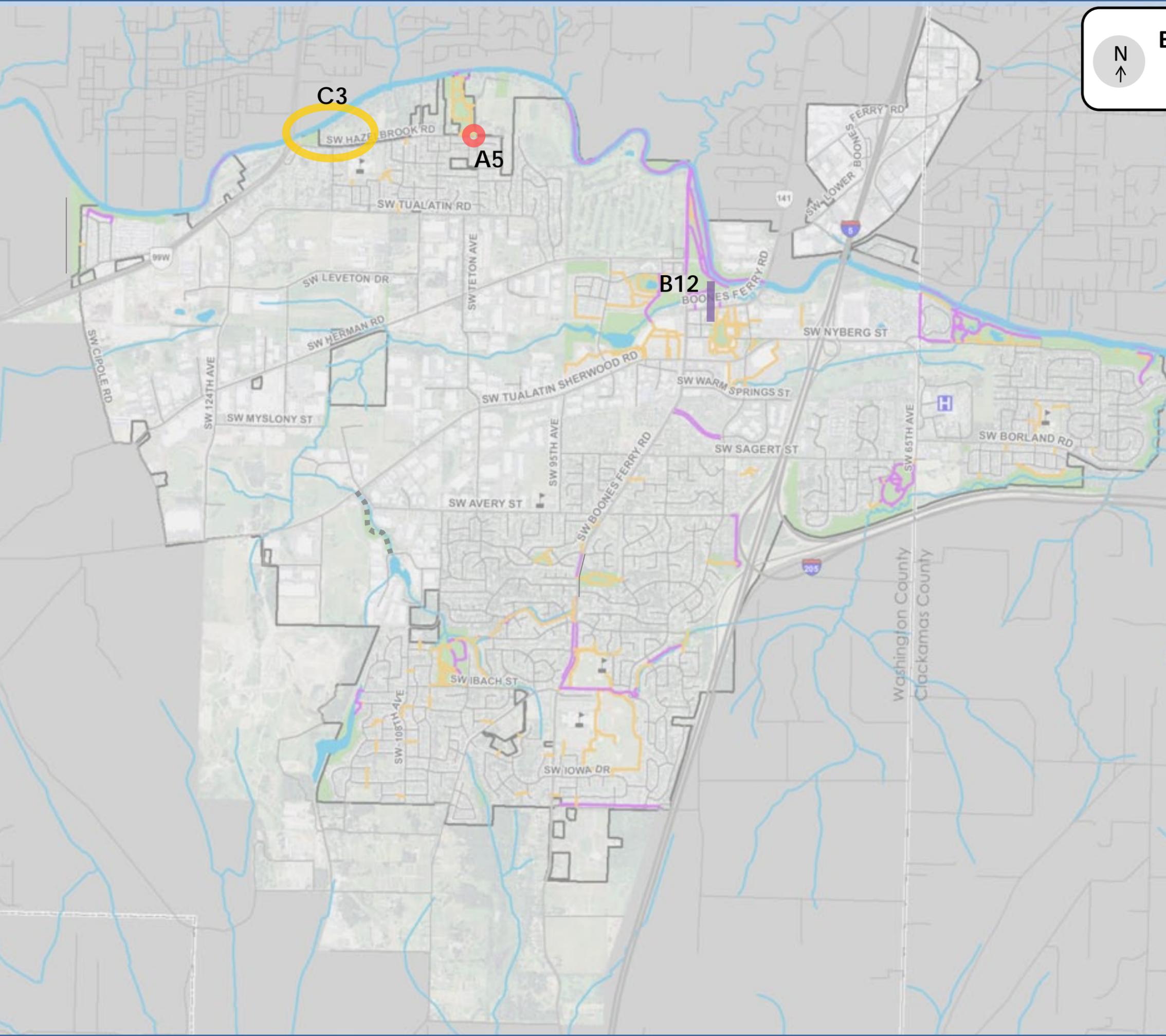
- Safety-Focused Ideas**
- A1 Add pedestrian-focused crossing improvements at key crossings of Tualatin-Sherwood Rd & Nyberg St
 - A2 Multi-use path between Borland Rd and Nyberg Ln
 - A3 Improve visibility and safety near schools at crosswalks
 - A4 Improve visibility at crosswalk at Siletz Dr & Boones Ferry Rd
 - A6 General – Provide wayfinding signs for Safe Routes to School

- Trail-Focused Ideas**
- C2 Build bridges for pedestrian and bicycle access over the Tualatin River
 - C4 Create a system of bicycle boulevards (Bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)
 - C5 Tonquin Trail

- Facility-Focused Ideas**
- B1 Connect Tonquin trail with neighborhoods
 - B2 Add sidewalks & bicycle lanes on Norwood Rd
 - B3 Improve Tualatin-Sherwood Rd to make it more bicycle and pedestrian friendly

- B4 Add bicycle facilities (65th Ave near the hospital, 95th Ave and Martinazzi Ave)
- B5 Focused bicycle facility improvements in heart of downtown, including Martinazzi Ave, Boones Ferry Rd, and Tualatin-Sherwood Rd
- B6 Better accommodate pedestrians on the bridges
- B7 Build a raised intersection at Seneca and Nyberg (crossing Boones Ferry Rd)
- B8 Fill sidewalk gaps (Herman Rd, Grahams Ferry Rd, Boones Ferry Rd, and the connection between Boones Ferry Rd and Norwood Rd)
- B9 Add bicycle and pedestrian facilities on 105th Ave, Blake St, 108th Ave
- B10 Add a bike box on Boones Ferry Rd near the Sweek House
- B11 Add a dedicated bike lane through intersection at Avery St & Boones Ferry Rd
- B13 Make bicycle and pedestrian facility improvements at railroad crossings
- B14 Pedestrian crossing improvements (Tualatin View Apartments, Boones Ferry Rd; Martinazzi Ave & Warm Springs St)
- B15 Add bicycle lanes on Boones Ferry Rd to Day Rd
- B16 Add I-5 multi-use crossing – connect to existing multi-use paths
- B17 Create a bike path to Old Town Sherwood as this area develops
- B18 Add a grade-separated crossing over 99W
- B19 Add bike detection loops at major intersections (indicated by ●)
- B20 Add benches between residential and commercial areas throughout the city, especially between the Heritage Center and Haggens (not on map)
- B21 General – Allow wider sidewalks for strolling and outdoor cafes. (Potential Tualatin Development Code change)

- Projects from Previous Plans**
- P1 Add bike lanes on Wilkes Rd (2001 TSP)
 - Build planned multi-use & pedestrian paths (Bike Plan, Greenway Development, & Parks Plan)
- Existing Facilities**
- Existing multi-use paths
 - Existing pedestrian paths



Bicycle and Pedestrian Working Group
 Ideas that will not be evaluated



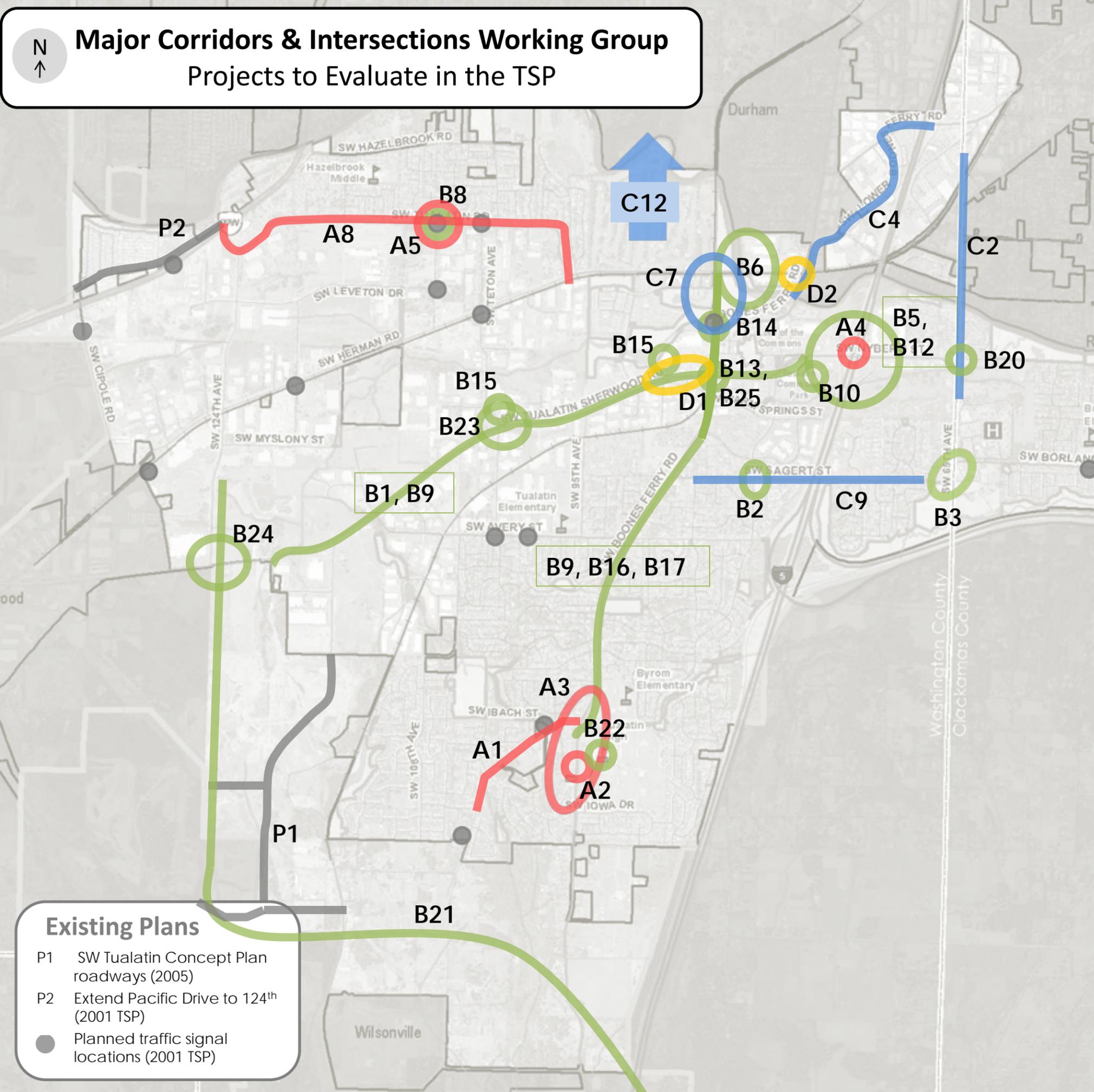
Safety-Focused Ideas
 A5 Improve lighting at Jurgens Rd and Hazelbrook Rd
 Not transportation related

Facility-Focused Ideas
 B12 Add a pedestrian overcrossing between the
 Community park and Tualatin Commons
 Not transportation related, project is cost
 prohibitive

Trail-Focused Ideas
 C1 This project has been combined with B16
 C3 Add a pedestrian shortcut between Hazelbrook
 Rd and 99W
 Not transportation related – no identified need

Existing Facilities
 Existing multi-use paths
 Existing pedestrian paths

Major Corridors & Intersections Working Group
Projects to Evaluate in the TSP



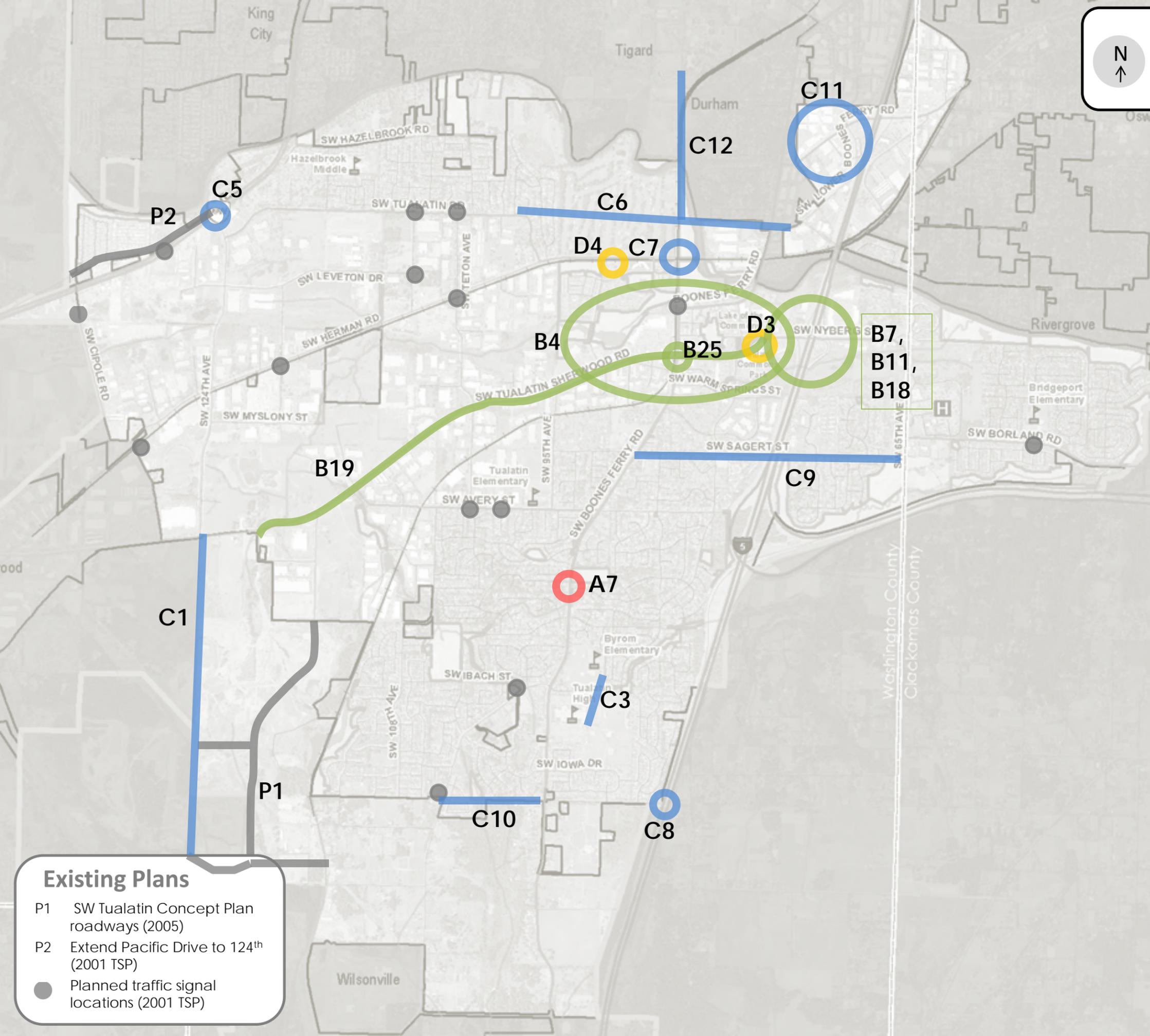
- Safety-Focused Ideas**
- A1 Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd
 - A2 Add traffic signal at Tualatin High School
 - A3 Consistent speed zones for both Tualatin High School & Byrom Elementary School
 - A4 Improve the sight distance at the I-5-Nyberg Rd interchange
 - A5 Add traffic signal on Tualatin Rd at 108th Ave
 - A6 *General* – consistent use of yellow turn signals on all traffic signals
 - A8 Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd. Make residential access easier.

- Congestion-Focused Ideas**
- B1 Widen Tualatin-Sherwood Rd
 - B2 Signal or roundabout at Sagert St and Martinazzi Ave
 - B3 Realign Sagert St/Borland Rd intersection
 - B5 Restrict right turn on red at Nyberg Interchange
 - B6 Rethink access in vicinity of Tualatin Community Park
 - B8 Prohibit left turns out of 108th Ave or remove trees in the southwest corner
 - B9 Coordinate signal timing on Boones Ferry Rd and Tualatin-Sherwood Rd; widen Boones Ferry Rd
 - B10 Redesign the intersection at the Fred Meyer (from Nyberg Rd)
 - B12 Make two right turn lanes from I-5 north onto Nyberg Rd
 - B13 Extend the northbound left turn lane and create a southbound right turn lane on Boones Ferry Rd at Tualatin-Sherwood Rd to reduce backup from WES train; add red light cameras
 - B14 Reconfigure Boones Ferry Rd at Tualatin Rd
 - B15 Add a 4-way stop by 90th Ave at Kaiser
 - B16 Add bus pullouts on Boones Ferry Rd
 - B17 Widen Boones Ferry Rd
 - B20 Roundabout or signal intersection at Nyberg Rd/65th Ave; keep Nyberg Rd 2 lanes
 - B21 Extend 124th Ave and connect to I-5 and Tonquin Rd
 - B22 Address congestion caused by high school
 - B23 Add a dedicated right turn lane on Teton Ave at Tualatin-Sherwood Rd
 - B24 Add right turn lane on Tualatin-Sherwood Rd at 124th Ave

- Connectivity-Focused Ideas**
- C2 Extend 65th Ave north
 - C4 Improve traffic flow on Lower Boones Ferry Rd near Bridgeport Village into downtown Tualatin
 - C7 Revise connection between Tualatin Rd and Boones Ferry Rd near the railroad tracks
 - C9 Widen Sagert to 2 lanes in each direction
 - C12 Provide north-south connectivity over Tualatin River for vehicles

- Other Ideas**
- D1 Add lane on Tualatin-Sherwood Rd to Fred Meyer, better lane signage for I-5. Install traffic camera for signal violations.
 - D2 Better signs needed to direct traffic to correct street

- Existing Plans**
- P1 SW Tualatin Concept Plan roadways (2005)
 - P2 Extend Pacific Drive to 124th (2001 TSP)
 - Planned traffic signal locations (2001 TSP)



Major Corridors and Intersections
Working Group
 Ideas that will not be evaluated

- Safety-Focused Ideas**
- A7 Improve sight distance and reduce speeds at Boones Ferry Rd and Arapaho Rd

- Congestion-Focused Ideas**
- B4 Consider a traffic loop in downtown (one way, right turn only)
 - B7 Consider removing ramp signals at Nyberg interchange
 - B11 Consider redesigning the Nyberg interchange into a full cloverleaf
 - B18 Add a southbound left turn and right turn lane to Nyberg interchange
 - B19 Restrict trucks to right lane. Widen travel lanes.
 - B25 Limit access and grade separate the intersection of Tualatin-Sherwood Rd and Boones Ferry Rd

- Connectivity-Focused Ideas**
- C1 Extend 124th Ave to Tonquin Rd
 - C3 Construct a new road between Tualatin High School and Byrom Elementary
 - C5 Improve intersection at 99 W and Tualatin Rd
 - C6 Extend Tualatin Rd to Lower Boones Ferry Rd
 - C7 Add a connection between Tualatin Rd and Boones Ferry Rd; revise signal
 - C8 Need on/off ramps from I-5 to Norwood Rd
 - C9 Widen Sagert St to 2-lanes each way with pedestrian median
 - C10 Extend Helenius Rd (Grahams Ferry Rd to Norwood Rd)
 - C11 Create street grid in Bridgeport

- Other Ideas**
- D3 Tualatin-Sherwood Rd/Martinazzi adjust signal timing, and add a red light camera
 - D4 Adjust signal timing

Existing Plans

- P1 SW Tualatin Concept Plan roadways (2005)
- P2 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal locations (2001 TSP)

Existing Plans

- P1 Connect Myslony and Avery Streets to Tualatin-Sherwood Rd (2001 TSP)
- P2 Widen McEwan Rd to 3-lanes for bikes and pedestrians (2001 TSP)
- P3 SW Tualatin Concept Plan roadways (2005)
- P4 Extend Pacific Drive to 124th (2001 TSP)
- Planned traffic signal (2001 TSP)

Industrial and Freight Working Group Projects to Evaluate in the TSP



Congestion-Focused Ideas

- A1 Add a signal or roundabout at Sagert St and Martinazzi Ave
- A2 Divert truck traffic from Tualatin Rd to Herman Rd
- A5 Extend 124th Ave and connect to I-5 south of Tualatin
- A6 Provide coordinated signal timing and access management along major arterials.
- A7 Remove northbound right turn light on Boones Ferry Rd
- A9 Improvements to help mobility of through-traffic (Tualatin-Sherwood Rd)
- A11 Improve turn radius at Avery St and Teton Ave, look at congestion
- A12 Synchronize turn signals to/from Boones Ferry Rd to Tualatin-Sherwood Rd; coordinate with the train signal
- A13 Widen Boones Ferry Rd through downtown

Transit-Focused Ideas

- B1 General - Add Saturday, Sunday, late evening transit shuttle
- B2 Add rail station with easy offload and access for industry
- B3 General - Provide local loop bus

Connectivity-Focused Ideas

- C3 Provide north-south vehicle connectivity over Tualatin River
- C4 Add a right turn from Teton Ave to Tualatin-Sherwood Rd
- C5 Extend 65th Ave north
- C6 Improve 115th Ave
- C7 Improve cross-section on Herman Rd
- C8 Add signal to Tualatin Rd and Boones Ferry Rd;
- C9 Consider removing trucks/adding truck info signs along 108th/105th Aves.
- C10 Extend 95th Ave north to Tualatin Rd
- C12 Create an east/west connection across I-5 (near Greenhill Rd)
- C13 General- Provide travel options by improving connectivity in the roadways system
- C14 Widen Myslony St to standards – reduce on-street parking (AW Idea)*
- C15 Upgrade Cipole Rd to standards with sidewalks and bike lanes (AW Idea)
- C16 Improve Tonquin Rd between Oregon St and Waldo Way (AW Idea)
- C17 Improve circulation east of the Bridgeport/I-5 Interchange (AW Idea)

Other Ideas

- D1 General – Coordinate freight receiving/shipping times
- D2 Add vision & sound walls; reduce cut-through traffic
- D3 General – Provide incentives to telecommute
- D5 Add a lane on Tualatin-Sherwood Rd to Fred Meyer, better I-5 lane signage. Add traffic camera for red light violations.
- D6 Improve signs to direct traffic to correct street
- D7 Add traffic signal at 97th Ave and Tualatin-Sherwood Rd
- D8 Improve visibility, restrict left turns, add signal on from 108th Ave onto Tualatin Rd
- D9 Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd
- D10 Improve Tualatin-Sherwood Rd/Martinazzi Ave signal timing/add a red light camera
- D11 Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd
- D12 General - Make "Truck Route" signs larger
- D13 Add traffic calming on Tualatin Rd
- D14 General - Add measures to reduce truck traffic on local and minor streets – including traffic calming
- D15 Improve turning radius from Herman Rd northbound onto 108th Ave (AW Idea)
- D16 Increase speed limit to 40 or 45 MPH on 124th Ave (AW Idea)
- D17 Reconfigure the intersection of 115th Ave and Tualatin-Sherwood Rd (AW Idea)
- D18 Improve turning radius from Tualatin-Sherwood Rd to Cipole Rd (AW Idea)
- D19 Improve northbound right and left turns onto Herman Rd (AW Idea)
- D20 Improve southbound left turns at 63rd Ave and Lower Boones Ferry Rd (AW Idea)
- D21 Improve southbound left turns from Jurgens and 106th Aves onto Tualatin Rd (AW Idea)
- D22 Improve 65th Ave south across I-205; widen and address dip in the roadway (AW Idea)
- D23 General – ensure that future roundabout designs can accommodate larger trucks (AW Idea)

* (AW Idea) indicates that this project was suggested through conversations with Allied Waste drivers

N
↑

Neighborhood Livability Working Group
Projects to Evaluate in the TSP

- Safety-Focused Ideas**
- A1 Discourage/restrict through & truck traffic along Tualatin Rd while encouraging a shift to Herman Rd & Leveton Rd. Make residential access along Tualatin Rd easier.
 - A3 Reroute school buses away from Tualatin Community Park and two railroad crossings
 - A4 Add a roundabout at Boones Ferry Rd & Norwood Rd
 - A5 Make Boones Ferry Rd more pedestrian-friendly, including the creation of one consistent speed limit, without widening
 - A6 Improve intersection at 108th Ave and Tualatin Rd
 - A8 Reduce speed, possibly add trail through wooded area.
 - A9 Eliminate free right turns

- Congestion-Focused Ideas**
- B1 Add a signal or roundabout at Sagert St and Martinazzi Ave
 - B2 Add a dedicated right turn lane into apartments near Nyberg Woods Shopping Center
 - B3 Realign Sagert St and Borland Rd intersection (roundabout or signal)
 - B4 Improve intersection at Avery St and Teton Ave
 - B5 Address congestion caused by high school
 - B6 Adjust signal timing to reflect traffic needs
 - B8 Add right turn lane from Tualatin-Sherwood Rd to northbound 124th Ave

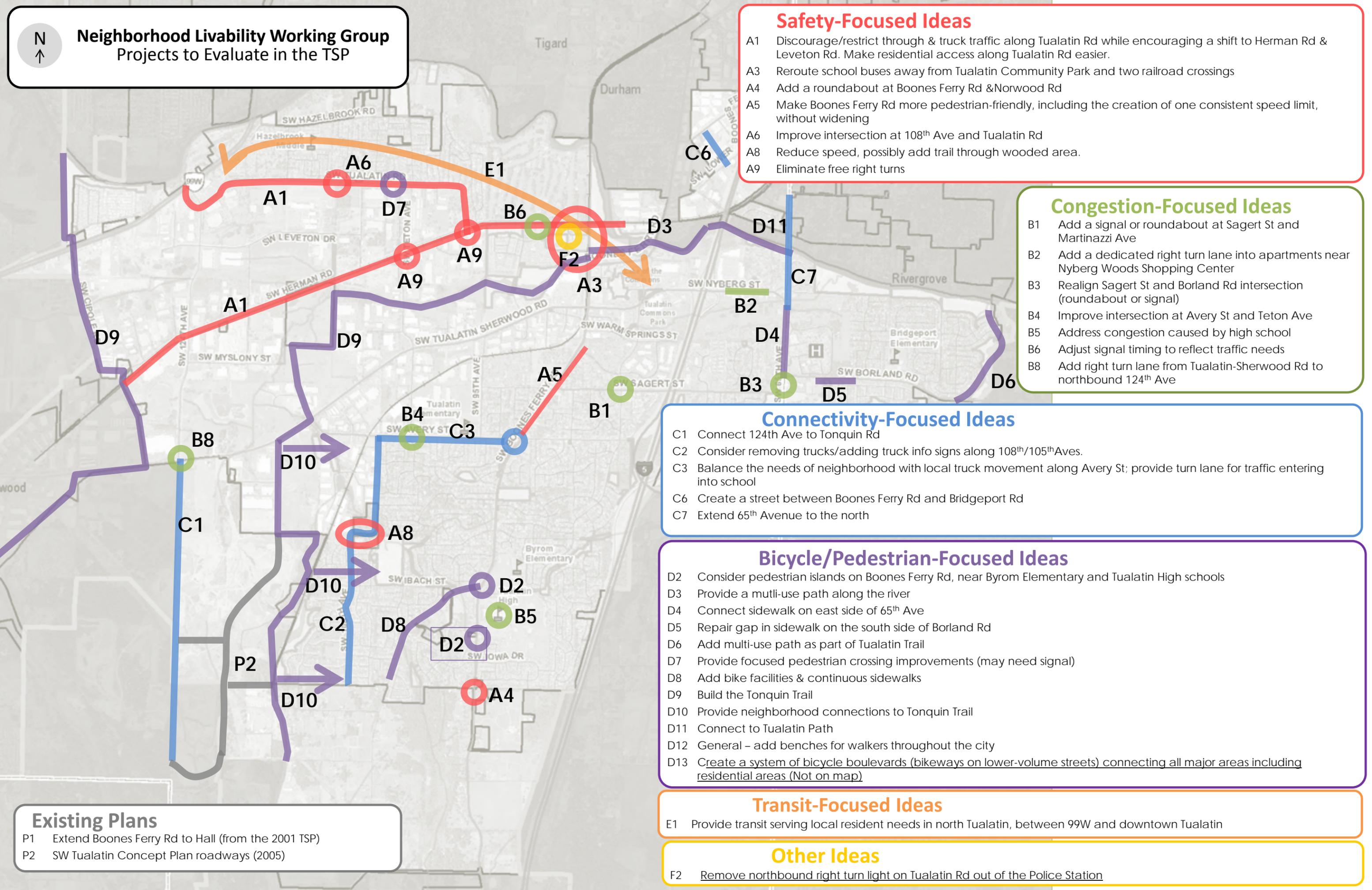
- Connectivity-Focused Ideas**
- C1 Connect 124th Ave to Tonquin Rd
 - C2 Consider removing trucks/adding truck info signs along 108th/105th Aves.
 - C3 Balance the needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school
 - C6 Create a street between Boones Ferry Rd and Bridgeport Rd
 - C7 Extend 65th Avenue to the north

- Bicycle/Pedestrian-Focused Ideas**
- D2 Consider pedestrian islands on Boones Ferry Rd, near Byrom Elementary and Tualatin High schools
 - D3 Provide a multi-use path along the river
 - D4 Connect sidewalk on east side of 65th Ave
 - D5 Repair gap in sidewalk on the south side of Borland Rd
 - D6 Add multi-use path as part of Tualatin Trail
 - D7 Provide focused pedestrian crossing improvements (may need signal)
 - D8 Add bike facilities & continuous sidewalks
 - D9 Build the Tonquin Trail
 - D10 Provide neighborhood connections to Tonquin Trail
 - D11 Connect to Tualatin Path
 - D12 General - add benches for walkers throughout the city
 - D13 Create a system of bicycle boulevards (bikeways on lower-volume streets) connecting all major areas including residential areas (Not on map)

- Transit-Focused Ideas**
- E1 Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

- Other Ideas**
- F2 Remove northbound right turn light on Tualatin Rd out of the Police Station

- Existing Plans**
- P1 Extend Boones Ferry Rd to Hall (from the 2001 TSP)
 - P2 SW Tualatin Concept Plan roadways (2005)



Neighborhood Livability Working Group
 Ideas that will not be evaluated



- Safety-Focused Ideas**
- A2 Improve lighting on Hazelbrook Rd
 - A7 Improve sight distance and reduce speeds at Boones Ferry Rd and Arapaho Rd
 - A10 Require a stop before vehicles turn right onto Boones Ferry Rd between Mohawk St and Greenhill Ln

- Congestion-Focused Ideas**
- B7 Add two right turns onto I-5 northbound from Nyberg St

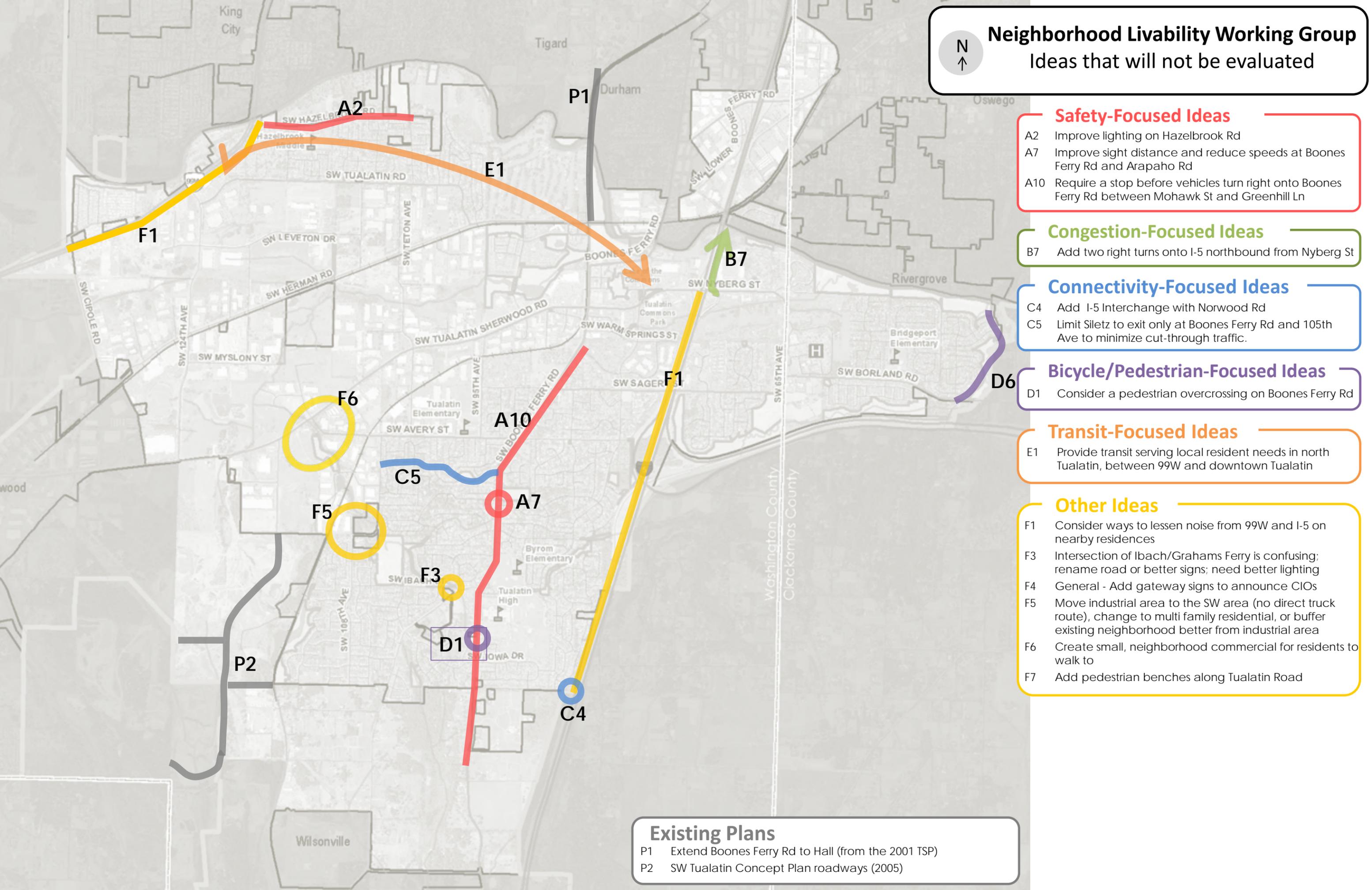
- Connectivity-Focused Ideas**
- C4 Add I-5 Interchange with Norwood Rd
 - C5 Limit Siletz to exit only at Boones Ferry Rd and 105th Ave to minimize cut-through traffic.

- Bicycle/Pedestrian-Focused Ideas**
- D1 Consider a pedestrian overcrossing on Boones Ferry Rd

- Transit-Focused Ideas**
- E1 Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin

- Other Ideas**
- F1 Consider ways to lessen noise from 99W and I-5 on nearby residences
 - F3 Intersection of Ibach/Grahams Ferry is confusing; rename road or better signs; need better lighting
 - F4 General - Add gateway signs to announce CIOs
 - F5 Move industrial area to the SW area (no direct truck route), change to multi family residential, or buffer existing neighborhood better from industrial area
 - F6 Create small, neighborhood commercial for residents to walk to
 - F7 Add pedestrian benches along Tualatin Road

- Existing Plans**
- P1 Extend Boones Ferry Rd to Hall (from the 2001 TSP)
 - P2 SW Tualatin Concept Plan roadways (2005)



Tualatin TSP Goals and Objectives

As accepted by the Transportation Task Force at its February 2, 2012 meeting

With suggestions at and following Open House



Goal Category	Goal	Objective
Access and Mobility	Maintain and enhance the transportation system to reduce travel times, provide travel time reliability, provide a functional and smooth transportation system, and promote access for all users.	<p>Improve travel time reliability/ provide travel information for all modes including freight and transit</p> <p>Provide efficient and quick travel between point A and B</p> <p>Provide connectivity within the City between popular destinations and residential areas</p> <p>Accommodate future traffic, bicycle, pedestrian, and transit demand</p> <p>Reduce trip length and potential travel times for motor vehicles, freight, transit, bicycles, and walking</p> <p>Improve comfort and convenience of travel for all modes including bicycles, pedestrians, and transit users</p> <p>Increase access to key destinations for all modes</p>
Safety	Improve safety for all users, all modes, all ages, and all abilities within the City of Tualatin.	<p>Address known safety locations, including high crash locations for motor vehicles, bicycles, and pedestrians</p> <p>Address geometric deficiencies that could affect safety including intersection design, location and existence of facilities, and street design</p> <p>Ensure emergency vehicles are able to provide services throughout the City to support a safe community</p> <p>Provide a secure transportation system for all modes</p>
Vibrant Community	<p>Allow for a variety of alternative transportation choices for citizens of and visitors to Tualatin to support a high quality of life and the livability of the community.</p> <p>Produce a plan which respects and preserves neighborhood values and identity.</p>	<p>Create a variety of safe options for transportation needs including bicycling, pedestrians, transit, freight, and motor vehicles</p> <p>Provide complete streets that include universal access through pedestrian facilities, bicycle facilities and transit on some streets</p> <p>Support a livable community with family-friendly neighborhoods</p> <p>Maintain a small town feel</p>
Equity	Consider the distribution of benefits and impacts from potential transportation options, and work towards fair access to transportation facilities for all users, all ages, and all abilities.	<p>Promote a fair distribution of benefits and burdens on different populations within the City (i.e. low-income, transit dependant, minority, age groups) and different neighborhoods and employment areas within the City</p> <p>Consider access to transit for all users</p>

Goal Category	Goal	Objective
Economy	Support local employment, local businesses and a prosperous community while recognizing Tualatin’s role in the regional economy	<p>Support a vibrant City Center and community, accessible to all modes of transportation</p> <p>Support employment centers by providing transportation options to major employers</p> <p>Increase access to employment and commercial centers on foot, bike, or transit</p> <p>Consider positive and negative effects of alternatives on adjacent residential and business areas</p> <p>Accommodate freight movement</p> <p>Facilitate efficient access for goods, employees, and customers to and from commercial and industrial lands, including access to the regional transportation network.</p>
Health/Environment	Provide active transportation options to improve the health of citizens in Tualatin. Ensure transportation does not adversely impact public health or the environment.	<p>Provide active transportation options to area schools to reduce childhood obesity</p> <p>Promote active transportation modes to support a healthy public and children of all ages</p> <p>Provide interconnected networks for bicyclists and pedestrians throughout the City for all age groups</p> <p>Consider air quality effects of potential transportation solutions</p> <p>Protect park land and create an environmentally sustainable community</p> <p>Consider positive and negative effects of potential solutions on the natural environment (including wetlands and habitat areas)</p>
Ability to be Implemented	Promote potential options that are able to be implemented because they have community and political support and are likely to be funded.	<p>Promote fiscal responsibility and ensure that potential transportation system options are able to be funded given existing and anticipated future funding sources</p> <p>Evaluate for consistency with existing community, regional, and state goals and policies</p> <p>Strive for broad community and political support</p> <p>Optimize benefits over the life-cycle of the potential option</p> <p>Consider transportation options that make best use of the existing network</p> <p>Conduct the planning process with adequate input and feedback from citizens in each affected neighborhood</p>

Tualatin Transportation System Plan, Preliminary Recommendations

PREPARED FOR: Tualatin Transportation Task Force

COPY TO: Kaaren Hofmann, City of Tualatin
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PREPARED BY: Theresa Carr, CH2M HILL

DATE: February 14, 2013

This memorandum provides a brief overview of the process used to identify preliminary project recommendations for the Tualatin Transportation System Plan (TSP), as presented to the Transportation Task Force (TTF) at its June 21st meeting. Evaluation summaries for each project idea, with the preliminary recommendations, are included at the end of this memo. Maps identifying the location of each project idea are also included.

In May 2012, the TSP's technical team reviewed each of the projects identified as feasible against a set of evaluation criteria. The evaluation criteria are quantitative or qualitative measures that help the team identify how well the project idea is at meeting the TSP's goals and objectives (see Preliminary Evaluation Results memo dated May 25, 2012 for more information on this evaluation) These results were discussed at the May 24th TTF meeting, and with each of the six Working Groups at their third round of meetings, as follows:

- Downtown (June 4)
- Transit (June 5)
- Bicycle and Pedestrian (June 6)
- Industrial and Freight (June 13, mid-day)
- Neighborhood Livability (June 13, evening)
- Major Corridors and Intersections (June 14)

The attached evaluations have been refined to reflect modest changes made during these meetings.

In late May, the technical team conducted a preliminary assessment of whether each project idea should be moved forward into the TSP. All Working Group participants also had this discussion, and participants at Working Group meetings were asked to place dots next to project ideas they thought should or should not move forward, as follows:

- Green dots (participants were given five total) denoted the projects that would provide the greatest value to the community
- Red dots (participants were given five total) denoted projects that should not move forward into the TSP

Working Group participants did not need to use all dots provided. Photos of this dot exercise are on the project website at www.tualatintsp.org. Following the third round of meetings the technical team incorporated feedback from the Working Groups into the attached preliminary recommendations. The attached tables are organized to illustrate the following:

1. Projects that should be included in the TSP
2. Projects that should only be included as part of an urban upgrade, consistent with design standards for that roadway's functional classification
3. Projects that should not be included in the TSP
4. Projects that are topics for further refinement in the summer months

(Please note: Many project ideas were discussed at more than one Working Group meeting. The project team strives for consistency in wording, evaluation, and recommendations, but do allow these cross-cutting project ideas to be reported under each Working Group topic area.)

At its June 21st meeting, the TTF will review developments from this third round of Working Group meetings, and TTF members will be asked to accept or refine the preliminary recommendations before they are forwarded to the community as a whole for review over the summer months.

Six areas have been identified for further refinement over the summer months:

1. Tualatin-Sherwood Road options
2. Nyberg Interchange options
3. Boones Ferry Road options
4. North to South connectivity options
5. Herman Road and Tualatin Road options
6. Downtown connectivity options

For each of the six areas above, the traffic analysis and conceptual design teams will be evaluating up to three alternatives to be discussed with the Task Force during July and August and with the community over the summer months and at a larger meeting in September. Tradeoffs will be discussed related to traffic, connectivity, right of way, environmental, and cost.

Bicycle and Pedestrian Preliminary Project Recommendations

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A1	Add pedestrian crossing treatments at key locations on Tualatin-Sherwood and Nyberg	☐	●	●	☐	☐	●	☐	Yes
A2	Multi-use path on 65th Ave between Borland and Nyberg	●	☐	●	●	☐	●	☐	Yes
A3	Improve visibility and safety near schools at crosswalks	☐	●	☐	○	☐	☐	☐	Yes
A4	Improve visibility at crosswalk at Siletz Dr and Boones Ferry Rd	○	●	○	○	☐	☐	☐	Yes
A6	Provide wayfinding for Safe Routes to School	☐	☐	☐	☐	☐	○	☐	Yes
B1	Connect Tonquin trail with neighborhoods	●	☐	☐	●	●	●	☐	Yes
B8	Fill sidewalk gaps on Grahams Ferry, Boones Ferry, and Herman	●	●	●	N/A	●	☐	☐	Yes
B9	Add bicycle and pedestrian facilities on 105th Ave, Blake St, and 108th Ave	☐	●	☐	☐	●	☐	☐	Yes
B11	Add dedicated bike lane through Avery and Boones Ferry intersection	☐	☐	N/A	N/A	☐	☐	☐	Yes
B13	Improve bicycle and pedestrian treatments at railroad crossings	☐	●	N/A	N/A	●	☐	○	Yes
B16	Add I-5 multi-use crossing – connect to planned and existing multi-use paths	●	○	●	●	☐	☐	☐	Yes
B20	Add benches for walkers throughout the city	N/A	N/A	●	N/A	●	●	●	Yes
C4	Create a bicycle boulevard system connecting major areas	☐	●	☐	☐	●	●	☐	Yes
C5	Build the Tonquin Trail	●	●	●	●	●	●	●	Yes
B2	Add sidewalks and bicycle lanes on Norwood	☐	●	☐	☐	●	☐	☐	Only upon urban upgrade

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
B4	Add bicycle facilities near the hospital, 95th and Martinazzi	☐	●	●	☐	●	☐	☐	Only upon urban upgrade, or as part of A2
B6	Better accommodate pedestrians on the bridges	●	☐	☐	☐	●	●	○	Only upon urban upgrade
B15	Add bicycle lanes on Boones Ferry Rd to Day Rd	☐	●	●	N/A	●	●	☐	Only upon urban upgrade
B3	Improve Tualatin-Sherwood Rd for bicyclists and pedestrians	☐	☐	N/A	☐	●	●	○	No – Tonquin Trail
B7	Build a raised intersection at Seneca and Nyberg	○	○	☐	○	☐	☐	○	No
B10	Add bike box on Boones Ferry Rd near the Sweek House	○	☐	☐	○	☐	○	●	No
B17	Create a bike path to Old Town Sherwood as this area develops	●	●	☐	☐	☐	●	○	No – Tonquin Trail
B18	Add a grade-separated crossing over 99W	☐	●	○	○	☐	○	○	No
B19	Add bike detection loops at major intersections	☐	N/A	☐	N/A	☐	☐	●	No
B5	Improve bicycle facility treatments in downtown core	☐	●	●	●	●	●	☐	Refinement topic area
B14	Improve pedestrian crossing along Boones Ferry Rd	☐	☐	●	●	☐	N/A	●	Refinement topic area
B21	Allow wider sidewalks for strolling and outdoor cafes	N/A	☐	●	●	☐	N/A	☐	Refinement topic area
C2	Build pedestrian and bicycle bridges over the Tualatin River	☐	●	●	☐	●	☐	○	Refinement topic area

Downtown Preliminary Project Recommendations

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A1	Upgrade bridge surface and improve illumination along path in back of Haggens	☐	●	●	☐	●	☐	☐	Yes
A5	Redesign Fred Meyer to Kmart intersection (including pedestrian crossing)	●	●	☐	☐	☐	☐	☐	Yes
B1	Rethink access between Tualatin Road and Tualatin Community Park	●	☐	☐	●	●	●	☐	Yes
B3	Add eastbound lane on Tualatin-Sherwood from Martinazzi to I-5	●	☐	○	●	○	☐	☐	Yes
B7	Replace/widen Boones Ferry Road bridge over Tualatin River	●	●	☐	●	☐	●	☐	Yes
C1	Build trail along river from Boones Ferry to downtown, extend to greenway	●	☐	☐	☐	●	☐	☐	Yes
C4	Create grid system near Kmart upon redevelopment with connection to Seneca	●	☐	●	☐	●	☐	☐	Yes
D2	Upgrade Nyberg interchange for bicyclist safety	●	●	☐	○	☐	☐	○	Yes
D6	Improve sidewalks and bicycle lane at Boones Ferry to Lower Boones Ferry	●	●	☐	☐	●	☐	☐	Yes
D7	Bike and pedestrian treatments near Bridgeport Village	☐	☐	☐	☐	☐	○	☐	Yes
D8	Provide signage to accommodate bicycles on Boones Ferry	☐	☐	☐	☐	●	☐	☐	Yes
D9	Add bicycle lane on Martinazzi north of Warm Springs	☐	☐	☐	☐	●	☐	☐	Yes
F1	Encourage multimodal circulation and transit-oriented redevelopment	●	☐	●	☐	●	☐	☐	Yes
F2	Look for opportunities to open downtown's connection to the riverfront	●	☐	●	☐	●	☐	☐	Yes

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
F4	Add structured parking in the downtown core	☐	☐	☐	☐	N/A	N/A	☐	Yes
A2	Consider raised intersections on Martinazzi	○	☐	●	○	☐	●	☐	No
A4	Reduce speeds near Bridgeport Village	○	●	○	○	☐	N/A	○	No
A7	Add pedestrian island on Martinazzi Ave north of Seneca	○	☐	○	●	☐	☐	●	No
C6	Create road connections between Boones Ferry Rd and SW 90th Ave	☐	○	N/A	☐	○	☐	○	No
D4	Add pedestrian crossing at the WES stop (Seneca)	○	○	☐	○	☐	☐	○	No
D10	Coordinate traffic signal timing to accommodate pedestrians	○	N/A	●	○	○	☐	○	No
D11	Add focused pedestrian crossing over Boones Ferry Road at Tonka	○	☐	☐	○	☐	☐	○	No
F3	Eliminate parking minimum development requirements and consider parking maximums	N/A	☐	○	○	N/A	N/A	○	No
A6	Add roundabout at Boones Ferry and Lower Boones Ferry Road	☐	○	○	☐	☐	☐	○	Refinement topic area
B9	Widen Boones Ferry Rd	●	☐	☐	☐	○	☐	○	Refinement topic area
B10	Widen Tualatin-Sherwood Rd	☐	☐	○	●	○	●	○	Refinement topic area
C2	Provide north-south connectivity over Tualatin River for vehicles	●	☐	☐	●	☐	☐	○	Refinement topic area
C5	Improve downtown core street connectivity	●	☐	●	○	●	☐	○	Refinement topic area
D1	Redesign pedestrian crossings, consider flashing lights	○	●	☐	○	☐	☐	☐	Refinement topic area
D3	Optimize intersections to reduce conflicts along Boones Ferry and Tualatin Sherwood Roads	☐	●	☐	○	☐	☐	☐	Refinement topic area

Industrial and Freight Preliminary Project Recommendations

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A1	Add a signal or roundabout at Sagert/Martinazzi	●	◐	◐	●	◐	○	◐	Yes
A5	Extend 124th Ave to the south	●	◐	◐	●	◐	●	◐	Yes
A6	Provide coordinated signal timing and access management along major arterials	●	●	◐	◐	N/A	N/A	◐	Yes
A11	Address congestion on Avery and Teton	●	●	N/A	◐	N/A	N/A	◐	Yes
A12	Synchronize turn signals to/from Boones Ferry to Tualatin-Sherwood; coordinate with the train signal	●	N/A	◐	◐	N/A	N/A	◐	Yes
B1	Expand shuttle for industrial and manufacturing workers during the day – consider charging fares	●	N/A	●	◐	◐	●	◐	Yes
B3	Provide a loop bus route serving local residents	●	N/A	●	◐	◐	●	○	Yes
C5	Extend 65th Ave north	●	◐	○	●	○	◐	○	Yes
C9	Consider removing trucks/adding truck info signs along 108th/105th Aves	○	N/A	●	○	●	○	◐	Yes
C12	Create an east/west connection across I-5 (near Greenhill Rd)	●	●	◐	◐	◐	◐	◐	Yes (with Basalt Creek)
D1	Coordinate freight receiving/ shipping times	●	●	●	◐	N/A	N/A	◐	Yes
D3	Provide incentives to telecommute	◐	◐	N/A	◐	◐	◐	◐	Yes
D5	Add eastbound lane on Tualatin-Sherwood from Martinazzi to I-5	●	◐	○	●	◐	N/A	◐	Yes
D11	Encourage off-peak usage on Herman Rd and Tualatin-Sherwood Rd	◐	N/A	N/A	◐	●	N/A	◐	Yes
D14	Add measures to reduce truck traffic on local and minor collectors	○	●	●	○	◐	●	◐	Yes
D22	Improve 65th Ave south across I-205; widen and address dip in the roadway	◐	◐	N/A	◐	N/A	N/A	◐	Yes

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
D23	Ensure that future roundabout designs can accommodate larger trucks	☐	●	N/A	☐	N/A	N/A	☐	Yes
C14	Widen Myslony St to standards - reduce on-street parking	☐	●	N/A	☐	N/A	☐	☐	Only with urban upgrade
C15	Upgrade Cipole Rd to standards with sidewalks and bike lanes	☐	☐	●	●	☐	☐	☐	Only with urban upgrade
C16	Improve Tonquin Rd between Oregon St and Waldo Way	☐	☐	N/A	☐	N/A	☐	☐	Only with urban upgrade
A7	Remove NB right turn light on Boones Ferry	☐	○	☐	☐	N/A	N/A	☐	No
C4	Add a left turn from Teton to Tualatin Rd	N/A	N/A	N/A	N/A	N/A	N/A	○	No
C6	Improve 115th Ave	●	☐	○	☐	☐	☐	☐	No
C8	Add signal to Tualatin and Boones Ferry intersection	●	●	N/A	☐	○	☐	○	No
C10	Extend 95th Ave north to Tualatin Rd	●	☐	○	☐	○	○	○	No
C13	Provide travel options by improving connectivity in the roadway system	☐	●	●	☐	☐	☐	☐	No
D2	Add vision and sound walls; reduce cut-through traffic	○	○	●	○	○	○	○	No
D6	Improve signs to direct traffic to correct street	☐	N/A	N/A	N/A	N/A	N/A	○	No
D10	Improve Tualatin-Sherwood and Martinazzi signal timing	☐	N/A	N/A	☐	N/A	N/A	☐	No
D12	Make "Truck Route" signs larger	N/A	N/A	☐	☐	N/A	N/A	☐	No
D16	Increase speed limit to 40 or 45 MPH on 124th Ave	☐	N/A	N/A	☐	N/A	N/A	☐	No
D20	Improve southbound left turns at 63rd and Lower Boones Ferry	☐	☐	N/A	☐	N/A	N/A	☐	No
B2	Add rail station with easy offload and access for industry in the west part of town	●	N/A	●	☐	●	●	☐	Needs Refinement
C17	Improve circulation east of the Bridgeport/I-5 Interchange	☐	☐	☐	☐	☐	☐	☐	Needs Refinement

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A2	Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd	●	N/A	◐	◐	◐	◐	◐	Refinement Topic Area
A9	Improvements to help mobility of through-traffic on Tualatin-Sherwood Rd	●	◐	◐	●	○	●	◐	Refinement Topic Area
A13	Widen Boones Ferry Rd through downtown	●	◐	◐	◐	○	◐	○	Refinement Topic Area
C3	Provide north-south vehicle connectivity over Tualatin River	●	◐	◐	●	◐	◐	○	Refinement Topic Area
C7	Improve cross-section on Herman Rd	●	●	○	●	●	◐	◐	Refinement Topic Area
D7	Add traffic signal at 97th Ave and Tualatin-Sherwood Rd	◐	◐	◐	◐	◐	N/A	◐	Refinement Topic Area
D8	Improve visibility, add signal restrict left turns from 108th onto Tualatin	◐	◐	◐	○	◐	◐	◐	Refinement Topic Area
D9	Add a signal at Tualatin Rd and Teton Ave/Jurgens Rd	◐	N/A	◐	◐	◐	◐	◐	Refinement Topic Area
D13	Add traffic calming on Tualatin Road	○	○	●	○	◐	●	◐	Refinement Topic Area
D15	Improve turning radius from Herman Rd northbound onto 108th Ave	◐	◐	N/A	◐	N/A	N/A	◐	Refinement Topic Area
D17	Reconfigure the intersection of 115th and Tualatin-Sherwood	◐	◐	N/A	◐	N/A	N/A	◐	Refinement Topic Area
D18	Improve turning radius from Tualatin-Sherwood to Cipole	◐	◐	N/A	◐	N/A	N/A	◐	Refinement Topic Area
D19	Improve NB right and left turns onto Herman	◐	◐	N/A	●	N/A	N/A	◐	Refinement Topic Area
D21	Improve SB left turns from Jurgens and 106th onto Tualatin	◐	◐	N/A	◐	N/A	N/A	◐	Refinement Topic Area

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PRELIMINARY

Major Corridors and Intersections Preliminary Project Recommendations

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A1	Reduce speeds, add guardrail and shoulders to this section of Grahams Ferry Rd	☐	●	●	N/A	☐	☐	☐	Yes
A3	Consistent speed zones for Tualatin High School and Byrom Elementary School	N/A	●	N/A	N/A	N/A	N/A	●	Yes
A6	Consistent use of yellow turn signals at traffic signals	☐	●	N/A	☐	N/A	N/A	●	Yes
B2	Signal or roundabout at Sagert and Martinazzi	●	☐	☐	●	☐	○	☐	Yes
B6	Rethink access between Tualatin Road and Tualatin Community Park	☐	☐	●	N/A	☐	●	☐	Yes
B8	Prohibit left turns out of 108th Ave or remove trees in the southwest corner	○	☐	○	☐	☐	○	☐	Yes
B9	Coordinate signal timing on Boones Ferry Rd	●	●	N/A	●	N/A	☐	●	Yes
B10	Redesign Nyberg/Fred Meyer intersection and improve pedestrian crossing	☐	●	☐	●	☐	☐	☐	Yes
B16	Add bus pullouts on Boones Ferry Rd	●	☐	○	☐	○	●	☐	Yes
B21	Extend 124th Ave to south	●	☐	☐	●	☐	●	☐	Yes
B23	Add a dedicated right turn lane on Teton at Tualatin-Sherwood	●	☐	N/A	☐	☐	☐	●	Yes
C2	Extend 65th Ave to the north	●	☐	○	●	○	☐	○	Yes
C4	Improve traffic flow on Lower Boones Ferry Rd between Bridgeport Village and downtown	●	●	☐	●	☐	☐	☐	Yes
D1	Add eastbound lane on Tualatin-Sherwood from Martinazzi to I-5	●	●	○	●	○	☐	☐	Yes
A2	Add traffic signal at Tualatin High School	☐	☐	☐	N/A	☐	○	○	No
B3	Realign Sagert /Borland to one intersection	●	☐	○	○	○	○	○	No
B14	Reconfigure Boones Ferry at Tualatin Road	☐	☐	○	☐	○	☐	○	No

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
B15	Add a 4-way stop by 90th Ave at Kaiser	○	◐	◐	○	◐	◐	◐	No
B20	Roundabout or signal at Nyberg and 65 th intersection	◐	N/A	○	○	○	○	○	No
B22	Address congestion caused by high school	◐	◐	◐	◐	◐	○	◐	No
C7	Revise connection between Tualatin and Boones Ferry near the railroad tracks	◐	◐	○	◐	○	◐	○	No
C9	Widen Sagert to 2-lanes each way	●	●	○	●	○	○	○	No
D2	Better signs needed to direct traffic to correct street	N/A	N/A	N/A	N/A	N/A	N/A	○	No
A4	Improve sight distance at I-5 and Nyberg Rd interchange	N/A	●	N/A	◐	◐	◐	◐	Refinement Topic Area
A5	Add traffic signal on Tualatin Rd at 108th	◐	◐	◐	◐	◐	◐	◐	Refinement Topic Area
A8	Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd	●	◐	●	◐	◐	◐	○	Refinement Topic Area
B1	Widen Tualatin-Sherwood Rd	●	◐	○	●	○	●	○	Refinement Topic Area
B5	Restrict right turn on red at Nyberg Interchange	○	●	N/A	○	◐	●	○	Refinement Topic Area
B12	Make two right turn lanes from I-5 north onto Nyberg Rd	●	◐	N/A	◐	○	●	◐	Refinement Topic Area
B13	Extend NB left turn and create a SB right turn lane on Boones Ferry at Tualatin-Sherwood to reduce backup from WES train	●	◐	◐	●	◐	◐	◐	Refinement Topic Area
B17	Widen Boones Ferry Rd at the south end of the City	●	◐	◐	◐	○	◐	○	Refinement Topic Area
B24	Add right turn lane on Tualatin-Sherwood at 124th	◐	◐	N/A	◐	◐	○	◐	Refinement Topic Area
C12	Look for ways to provide north-south connectivity over Tualatin River for vehicles	●	◐	◐	◐	◐	◐	○	Refinement Topic Area

Neighborhood Livability Preliminary Project Recommendations

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A3	Reroute school buses away from Tualatin Community Park and railroad crossings	☐	●	☐	N/A	☐	☐	☐	Yes
A8	Reduce speed, possibly add trail through wooded area	○	☐	●	○	☐	☐	☐	Yes
B1	Add signal or roundabout at Sagert and Martinazzi	●	☐	☐	●	☐	○	☐	Yes
B4	Improve intersection at Avery and Teton	●	●	N/A	☐	N/A	N/A	☐	Yes
C1	Extend 124th Ave to south	●	☐	☐	●	☐	●	☐	Yes
C2	Consider removing trucks/adding truck info signs along 108th/105th Aves	○	N/A	●	○	●	●	☐	Yes
C3	Balance needs of neighborhood with local truck movement along Avery St; provide turn lane for traffic entering into school	●	☐	☐	☐	☐	☐	☐	Yes
C7	Extend 65th Ave to the north	●	☐	○	●	○	☐	○	Yes
D3	Provide a multi-use path along the river	●	●	●	☐	●	●	☐	Yes
D4	Multi-use path on 65th Ave between Borland and Nyberg	●	☐	●	●	☐	●	☐	Yes
D5	Repair sidewalk gap on south side of Borland	●	●	●	N/A	●	☐	●	Yes
D6	Add multi-use path as part of Tualatin Trail	●	●	●	☐	●	☐	☐	Yes
D9	Build the Tonquin Trail	●	●	●	●	●	●	●	Yes
D10	Connect Tonquin trail with neighborhoods	●	☐	☐	●	●	●	☐	Yes
D11	Connect to Tualatin Path	●	☐	●	N/A	☐	☐	☐	Yes
D12	Add benches for walkers throughout city	N/A	N/A	●	N/A	●	●	●	Yes
D13	Create a bicycle boulevard system connecting major areas	☐	●	☐	☐	●	●	☐	Yes
E1	Provide transit serving local resident needs in north Tualatin, between 99W and downtown Tualatin	●	N/A	☐	☐	☐	☐	○	Yes

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
D8	Add bike facilities and continuous sidewalks along Graham's Ferry Road	●	●	◐	N/A	◐	◐	◐	Only with urban upgrade
B3	Realign Sagert /Borland to one intersection	●	◐	○	○	○	○	○	No
B5	Address congestion caused by high school	◐	◐	◐	◐	◐	○	◐	No
C6	Create a street between Boones Ferry Rd and Bridgeport Rd	●	◐	○	○	○	○	○	No
F2	Remove right turn light in the northbound direction on Tualatin Rd out of the Police Station	○	○	N/A	N/A	N/A	N/A	◐	No
A1	Discourage through and truck traffic along Tualatin Rd while encouraging through and truck traffic along Herman Rd	●	◐	●	◐	◐	◐	○	Refinement Topic Area
A4	Add a roundabout at Boones Ferry Rd and Norwood Rd.	◐	◐	○	○	○	◐	◐	Refinement Topic Area
A5	Make Boones Ferry Rd more pedestrian-friendly	◐	●	●	◐	●	◐	◐	Refinement Topic Area
A6	Improve intersection at 108th and Tualatin	◐	◐	◐	◐	◐	◐	◐	Refinement Topic Area
A9	Eliminate free right turns – on Herman Rd at Teton Ave and Tualatin Rd	○	●	●	○	◐	◐	●	Refinement Topic Area
B2	Add a dedicated right turn lane into apartments near Nyberg Woods Shopping Center	◐	◐	◐	○	◐	◐	◐	Refinement Topic Area
B6	Adjust signal timing to give priority to Tualatin Road through traffic	●	◐	○	◐	○	○	◐	Refinement Topic Area
B8	Add right turn lane on Tualatin-Sherwood at 124th	◐	◐	N/A	◐	◐	○	◐	Refinement Topic Area
D2	Add pedestrian islands on Boones Ferry, near Byrom ES and Tualatin HS	○	◐	◐	○	◐	◐	◐	Refinement Topic Area
D7	Provide focused pedestrian crossing improvements along Tualatin Road	○	●	●	○	●	◐	◐	Refinement Topic Area

Transit Preliminary Project Recommendations

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A2	Provide bus transit service on 124th Street	●	N/A	●	◐	◐	●	◐	Yes
A3	Provide bus transit service on Avery Street	●	N/A	●	◐	◐	●	◐	Yes
A5	Extend bus service to east Tualatin	●	N/A	●	◐	◐	●	◐	Yes
A7	Explore a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service	●	N/A	●	●	◐	●	◐	Yes
A8	Provide a loop bus route serving local residents	●	N/A	●	◐	◐	●	○	Yes
A10	Expand shuttle for industrial and manufacturing workers during the day – consider charging fares	●	N/A	●	◐	◐	●	◐	Yes
A12	General – need extended service for all transit	●	N/A	●	◐	◐	◐	○	Yes/ Focus on 96
B2	Provide high capacity transit service on Tualatin-Sherwood Road	●	N/A	◐	●	◐	●	◐	Yes (combine with South Corridor conversation)
C1	Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections	●	N/A	●	●	◐	●	◐	Yes
D1	Look for potential park-and-ride locations in west Tualatin	◐	N/A	●	◐	●	●	◐	Yes
D2	Look for potential park-and-ride locations in south Tualatin	◐	N/A	●	N/A	●	●	◐	Yes
D3	Add parking capacity at Tualatin Park-and-Ride - Potential structure	◐	N/A	◐	●	○	●	◐	Yes
A6	Provide express bus service between Tualatin and Salem	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No

ID	Project Idea	Access / Mobility	Safety	Vibrant Community	Economy	Health / Environment	Equity	Ability to be Implemented	Preliminary Recommendation
A13	General – use more energy efficient buses	N/A	N/A	N/A	N/A	N/A	N/A	○	No
A14	Coordinate bus schedules with WES schedule	N/A	N/A	N/A	N/A	N/A	N/A	○	No
A16	Add stops on higher volume routes	○	N/A	●	N/A	◐	◐	○	No
B1	Add more bicycle storage at the WES station	◐	N/A	N/A	N/A	N/A	N/A	○	No
B4	Build an elevated pedestrian bridge to connect the Tualatin park-and-ride with shopping	◐	N/A	○	N/A	N/A	○	○	No
D4	Look for opportunities to reduce size of or relinquish underutilized park-and-ride lots and transfer spaces to higher utilized areas	◐	N/A	●	◐	◐	●	◐	No
D5	Add a park-and-ride in east Tualatin	◐	N/A	●	N/A	●	●	◐	No
A1	Provide bus transit service on Herman Road	●	N/A	●	◐	◐	●	◐	Refinement Topic Area
A4	Provide bus transit service on Tualatin Road between downtown and 99W	●	N/A	●	◐	◐	●	◐	Refinement Topic Area



City of Tualatin

Refinement Areas (Part 1)

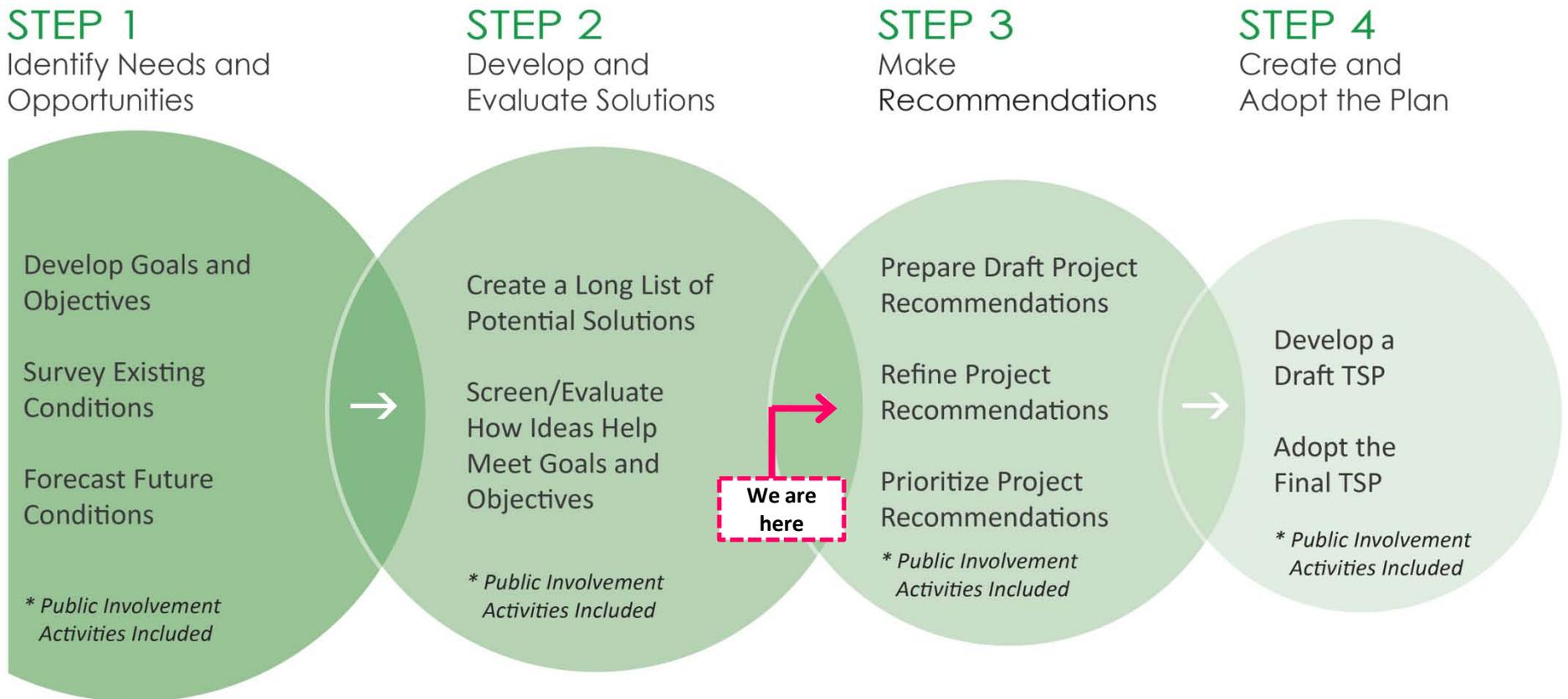
Tualatin TSP

Presentation to
Tualatin Transportation Task Force
July 19, 2012

Presentation Outline

- Focus of tonight's discussion
- Refinement area presentation and discussion
 - Nyberg interchange
 - 65th Avenue
 - North-south connectivity
 - Herman Road and Tualatin Road
- Next steps and preview of August meeting

Where We Are In the TSP Process



Progress Since our June 21st Meeting...

1. Mobilized the team to conduct additional analysis on refinement areas
 - ✓ Traffic and safety
 - ✓ Conceptual design
 - ✓ Environmental and policy
2. Team meetings to share information, package options
3. Discuss options with City, agencies

Our Seven Refinement Topic Areas

1. Nyberg interchange
2. 65th Avenue
3. North to south connectivity
4. Herman Road and Tualatin Road
5. Tualatin-Sherwood Road
6. Boones Ferry Road
7. Tualatin's Downtown Circulation

Tonight's Discussion Focuses on 1-4

1. Nyberg interchange
2. 65th Avenue
3. North to south connectivity
4. Herman Road and Tualatin Road
5. Tualatin-Sherwood Road
6. Boones Ferry Road
7. Tualatin's Downtown Circulation

Next Month's Discussion Focuses on 5-7

1. Nyberg interchange
2. 65th Avenue
3. North to south connectivity
4. Herman Road and Tualatin Road
5. Tualatin-Sherwood Road
6. Boones Ferry Road
7. Tualatin's Downtown Circulation

Plus we will answer questions and revisit anything as needed from tonight's meeting

Organization of Presentation

- Goal statement
- Description and sketch of possible solution
- Considerations
 - Local traffic, safety
 - City-wide traffic
 - Design considerations/constraints
 - Environmental/policy considerations

Your Role Tonight

1. Discuss as a task force the tradeoffs of various solutions
2. What are the benefits of doing something, vs. doing nothing?
3. What are the impacts?
4. Weigh in on forwarding options to the Summit

An Overall Context

- The TSP is in preliminary recommendations stage, through September
- We hope to reach resolution on *some* items tonight
- We don't expect to reach resolution on everything
- The conversation continues...
 - Online
 - August TTF meeting
 - September summit



Refinement Area Discussion

By Topic Area

Refinement Area #1: Nyberg Interchange





Goal Statement (#1 of 2)

Address safety at the Nyberg Interchange for all modes

Possible Solution



- A. Paint bike lanes
- B. Redesign bike lane at east end of interchange
- C. Skip striping on bike lane at west end of interchange
- D. Improve lane signage west of interchange
- E. Move guardrail on SB off ramp
- F. Disallow right turns on red from SB off ramp
- G. Redesign WB-NB movement to enhance safety
- H. Redesign NB off ramp to discourage traffic getting off and then right back onto I-5

Nyberg Interchange - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none"> • Minor effects on motor vehicle traffic • Moderate safety benefits 	●
City-wide traffic	<ul style="list-style-type: none"> • Minimal effect on city-wide traffic 	◐
Design Constraints / Considerations	<ul style="list-style-type: none"> • Revisions can be incorporated with minor impacts • Provides better delineation for traffic and bicyclists • Redesigns the NB on ramp to allow double rights • Discourages the NB through traffic with minor impacts 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Painted pavement would require ODOT review/approval • Recent precedent for painted bike lanes on ODOT facility • Minor changes to the interchange configuration will not impact the wetlands preservation district 	◐



Discussion

Technical team
recommendation:

Yes, move this option forward
to the Summit



Goal Statement (#2 of 2)

Reduce congestion on Tualatin-Sherwood Road for eastbound drivers

Possible Solution

- Add a new lane on Tualatin-Sherwood Road in the eastbound direction from Martinazzi to I-5



Nyberg Interchange - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none"> • Minor increase in EB traffic accessing freeway • Operations stay relatively consistent • Could detract from bicycle and pedestrian safety 	
City-wide traffic	<ul style="list-style-type: none"> • This potential solution has minimal effect on city-wide traffic 	
Design Constraints / Considerations	<ul style="list-style-type: none"> • Width of Tualatin-Sherwood Road/Nyberg Street from Martinazzi to the east is tight • No impacts forecasted to the Fred Meyer truck access road • Requires removal of mature street trees • Possible solution would be to shift lanes and widen to median • Past Fred Meyer intersection, widening would likely require walls, structure widening and impacts to sensitive areas 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • The area is already built • Only impacts are to the landscaping strip between the roadway and Fred Meyer 	



Discussion

Technical team recommendation:

Yes, forward on to summit as a long-term solution (10-20 year timeframe)



Refinement Area #2: 65th Avenue



Goal Statements

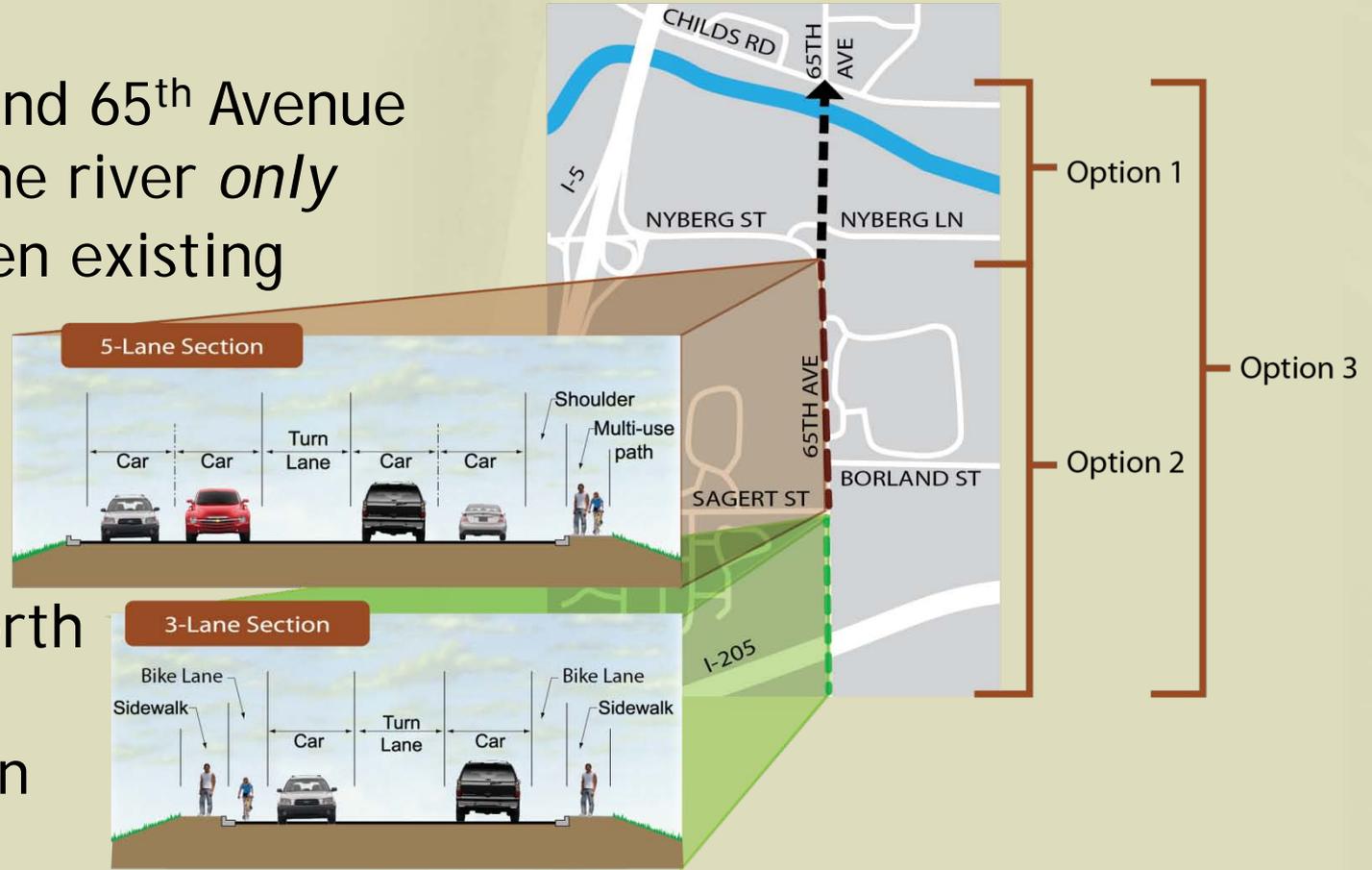
1. Provide north-south connectivity east of I-5
2. Address forecasted future congestion along 65th Avenue

Possible Solution

Option 1: Extend 65th Avenue north across the river *only*

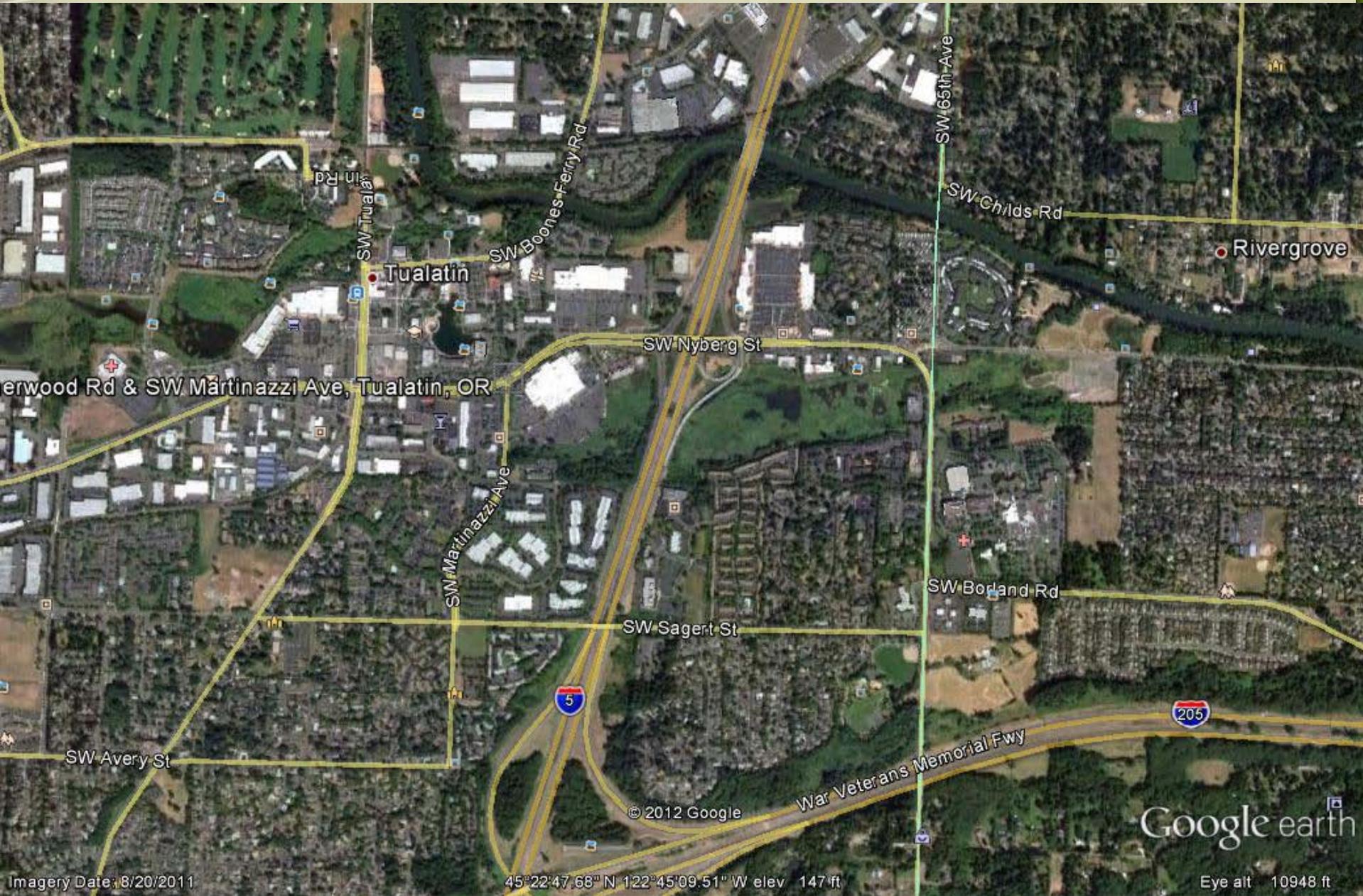
Option 2: Widen existing section of 65th Avenue *only*

Option 3: Extend 65th Avenue north and widen existing section



65th Avenue - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none"> ● Extension allows for <ul style="list-style-type: none"> ➤ Connectivity to north ➤ Potential for 1,000-1,200 vehicles during PM peak hour ● Widening allows <ul style="list-style-type: none"> ➤ Capacity to service the future demand on the roadway and at intersections 	
City-wide traffic	<ul style="list-style-type: none"> ● Extension would <ul style="list-style-type: none"> ➤ Reduce traffic on I-5 and Boones Ferry Road ➤ Create slight increase in traffic on Tualatin Sherwood Road eastbound over the Nyberg interchange 	



erwood Rd & SW Martinazzi Ave, Tualatin, OR

SW Tualatin In Rd

Tualatin

SW Boones Ferry Rd

SW Nyberg St

SW 65th Ave

SW Childs Rd

Rivergrove

SW Martinazzi Ave

SW Sagert St

SW Borland Rd

SW Avery St



War Veterans Memorial Fwy

© 2012 Google

Google earth

Imagery Date: 8/20/2011

45°22'47.68" N 122°45'09.51" W elev 147 ft

Eye alt 10948 ft

65th Avenue - Findings

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • <u>Extension</u> considerations: <ul style="list-style-type: none"> ➤ 40' ± right of way available from river to Childs ➤ Alignment could be designed to avoid lift station east/south of Nyberg Lane • <u>Widening</u> considerations: <ul style="list-style-type: none"> ➤ Widening Borland to Nyberg possible for bikes and peds with minor impacts until structure crossing Nyberg Creek and wetlands area ➤ Widening for lane/capacity involves more significant right of way and utility impacts ➤ Signal at Sagert less impactful than combining Sagert and Borland into one intersection 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Multi-jurisdictional coordination needed • Impacts to Metro riparian class I-III habitat • Easements or right of way required to extend and/or widen 65th Avenue 	



Discussion

Technical team recommendation:
Forward Option 3 (Extend 65th
Avenue to north, widen
existing section) on to summit



Refinement Area #3: North to South Connectivity



Goal Statement

Improve north-south connectivity west of I-5

Possible Solution

Note: All options below extend north across the Tualatin River, west of I-5

- *Option 1:* Extend west of railroad tracks, east of country club
- *Option 2:* Widen Boones Ferry Road
- *Option 3:* Extend 90th to north (not shown)
- *Option 4:* Extend west of country club (not shown)

North-South Connectivity - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none">▪ Allows for better north-south connectivity▪ New roadway potential to carry up to 1,000-1,500 vehicles in each direction during PM peak hour	◐
City-wide traffic	<ul style="list-style-type: none">▪ Potential draw from Hwy 99W, Boones Ferry Road, and Interstate 5▪ Potential to affect Downtown roadways, potentially difficult tie-ins with existing street network, impact varies depending on alignment	◐

North-South Connectivity - Findings

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • All options require significant right of way • All options require coordination with Oregon Department of Transportation Rail Division regarding rail crossings • Option to widen Boones Ferry Road has most impacts to existing buildings, followed by extension of 90th and extension west of country club 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Multi-jurisdictional coordination needed • Impacts to historic structures • Extension is included in Tigard TSP and Washington County TSP 	



Discussion

Technical Team Recommendation:
None at this time. Obtain input from TTF, come back to August TTF to discuss what (if any) option is forwarded to summit



Refinement Area #4: Herman Road and Tualatin Road



Goal Statement

Encourage through traffic to
move onto Herman Road and off
of Tualatin Road

Possible Solution



- A. Reclassify Herman
- B. Upgrade the remaining section of Herman
- C. Lower speeds on Tualatin
- D. Eliminate free right turn at Tualatin/Herman intersection, consider roundabout
- E. Add signals at the east and west ends of Tualatin
- F. Remove trees at Tualatin and 108th
- G. Modify channelization of 124th and Tualatin, consider roundabout
- H. Signage to indicate that Tualatin is for local traffic

Herman Road and Tualatin Road - Findings

Consideration Area	Comments	Score
Local traffic/safety	<ul style="list-style-type: none">● Major effect is shifting of traffic from Tualatin Road to Herman Road● On the west end traffic is diverted to 124th● On the east end traffic is diverted to Herman● Small amount of traffic shifted to Tualatin-Sherwood Road● Some traffic diverted along Hwy 99W up to Durham Road	
City-wide traffic	<ul style="list-style-type: none">● Minimal effects to city-wide traffic● Majority of effects are local	

Tualatin Road and Herman Road - Findings

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • Traffic calming can be installed with minor impacts • Projects could be chicane type improvements (lane weave) or speed tables • Coordination with Tualatin Valley Fire and Rescue and Tualatin Police likely needed • Improvements to Herman and the intersection of Tualatin/ Herman require right of way • New locations for signals recommended at Jurgens and 115th have not been analyzed for warrants • Removal of tree(s) at Teton, at the SW quadrant improve sight distance but have impacts to natural resources 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Some adjacent land would be required north of Herman to widen to three lanes • Potential impact some landscaping and parking • Planter circles and speed table design standards would need to be added to the City's code 	



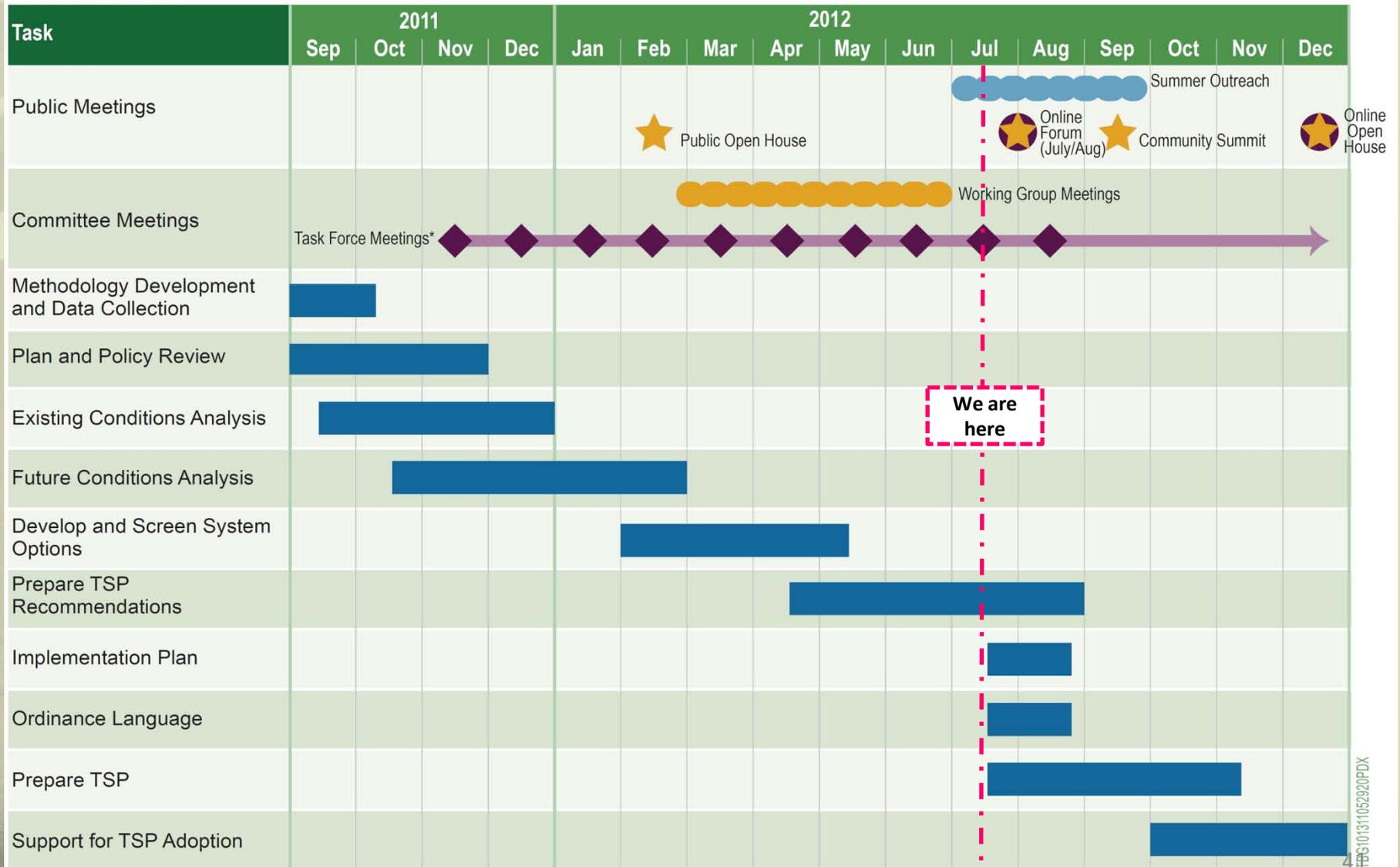
Discussion

Technical team recommendation:
Yes, move this option forward
to Summit

What Happens Next?

- July - continue analysis and respond to TTF questions
- August 23 meeting - review/discuss findings for remaining refinement areas
 - What are the benefits?
 - What are the impacts?
 - What are we willing to accept?
- Transportation Community Summit in September (September 20th)

Transportation System Plan Timeline



Refinement Area #1: Nyberg Interchange

Concept Package #1: Safety-Focused Solutions

Goal Statement

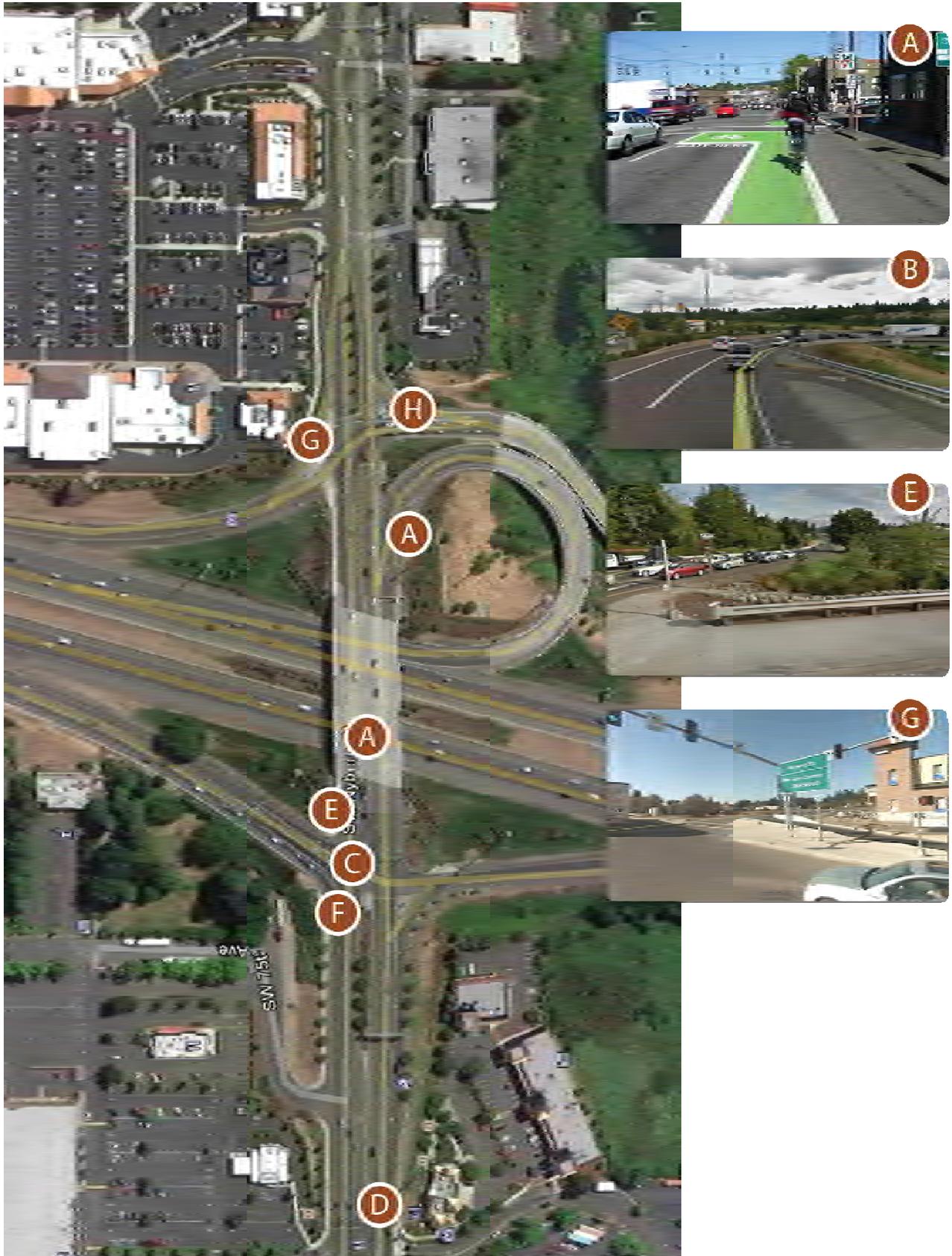
The primary goal for this refinement area is to address safety concerns at the Nyberg interchange, for all modes. The interchange serves as the main connection between Tualatin and the I-5 freeway, but also via Nyberg Road provides a main connection between downtown and east Tualatin. The interchange ramps have the highest crash rates in Tualatin, including several reported bicycle- and pedestrian-related crashes.

Possible Solution

The following solutions are put forth as one package at the Nyberg interchange area:

- A. Paint the pavement through the interchange area to make the bicycle lane more visible and distinct from travel lanes
- B. Redesign location of bicycle lane at the east end of interchange
- C. Bring bicycle lane across and over at west end of interchange with skip striping
- D. Improve lane signage west of the interchange to help vehicles be in the correct lane before entering interchange area
- E. Move guardrail on southbound off ramp to improve sight distance
- F. Disallow right turns on red from southbound off ramp
- G. Redesign westbound-northbound movement to enhance safety
- H. Redesign northbound off ramp to discourage traffic getting off and then right back onto I-5

Consideration Area	Comments	Score
How would this solution affect traffic and safety near the interchange?	<ul style="list-style-type: none"> • Minor effects on motor vehicle traffic • Moderate safety benefits from visible separation between bicycle and motor vehicle traffic 	●
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Minimal effect on city-wide traffic 	◐
Design Constraints / Considerations	<ul style="list-style-type: none"> • Striping revisions can be incorporated with minor impacts • Provides better delineation for traffic and bicyclists • Redesigns the northbound on ramp terminal to allow double rights • Discourages the northbound through traffic with minor impacts 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Painted pavement would require ODOT review/approval • Recent precedent for painted bike lanes on ODOT facility • Minor changes to the interchange configuration will not impact the wetlands preservation district 	◐



Refinement Area #1: Nyberg Interchange

Concept Package #2: Adding lane to Tualatin-Sherwood Road from Martinazzi to I-5 (eastbound direction)

Goal Statement

Concept package #2 addresses a goal to reduce congestion on Tualatin-Sherwood Road for eastbound drivers between Martinazzi Avenue and I-5. Traffic backups have been reported at the southbound on ramps which have been verified through field visits. However, traffic analysis for the Nyberg interchange does not show congestion concerns either now (2012 traffic volumes) or in the future (forecasted 2035 traffic volumes). The southbound on-ramps with I-5 operate at a Level of Service (LOS) D now and anticipated in the future, and the northbound on-ramps with I-5 operate at LOS B now and anticipated LOS C in the future.



Potential Solution

Add a new lane on Tualatin-Sherwood Road in the eastbound direction from Martinazzi to I-5.

Consideration Area	Comments	Score
How would this solution affect traffic near the interchange?	<ul style="list-style-type: none"> Minor increase in eastbound traffic accessing the freeway (50-100 vehicles during the PM peak hour) Operations stay relatively consistent Could detract from bicycle and pedestrian safety 	●
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> This potential solution has minimal effect on city-wide traffic 	●
Design Constraints / Considerations	<ul style="list-style-type: none"> Width of Tualatin-Sherwood Road/Nyberg Street from Martinazzi to the east is tight No impacts forecasted to the Fred Meyer truck access road, though walls may be needed to ensure truck access retained Requires removal of mature street trees Possible solution would be to shift lanes and widen to the median Past the Fred Meyer intersection, widening would likely require walls, structure widening and impacts to sensitive areas 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> The area is already built Only impacts are to the landscaping strip between the roadway and Fred Meyer 	●

Refinement Area #2: 65th Avenue

Option 1: Extending North into River Grove Only

Goal Statement

This option provides an alternative to crossing the Tualatin River in a north-south direction east of I-5. The 65th Avenue corridor serves as a major north-south route. It serves residents and medical facilities located east and west of 65th Avenue, notably the Legacy Meridian Park hospital. 65th Avenue is owned and maintained by Washington County. Although current traffic levels are within accepted County and City standards, future traffic is of concern due to expected residential and business growth. 65th Avenue has sidewalk gaps and lacks bicycle lanes.



Potential Solution

Extend 65th Avenue north of its current terminus near Nyberg Road to 65th Avenue across the Tualatin River in River Grove. At its crossing over the Tualatin River, the bridge could be a narrower cross section as a turn lane would not be needed. Reconstruct intersection of 65th Avenue and Nyberg Street and consider a roundabout at this location.

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> New connection has the potential for 1,000 to 1,200 motor vehicles during the PM peak hour Allows for connectivity to the north Slight increase in traffic on Sagert Street, Borland Road, 50th Avenue, SW Wilke Road, and Nyberg Lane 	◐
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Reduces traffic on I-5 and Boones Ferry Road Slight increase in traffic on Tualatin Sherwood Road eastbound over the Nyberg interchange Traffic would be impacted in River Grove and Lake Oswego 	●
Design Constraints / Considerations	<ul style="list-style-type: none"> Available right of way is 40' ± from river to SW Childs St Alignment could be designed to avoid impacts to recently constructed lift station east/north of the bridge Connection to the local roadway network north of the river 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> Solution requires multi-jurisdictional coordination Adjacent to land zoned high density residential where transportation facilities are an allowed use Impacts to Metro Riparian class Habitats I-III 	◐

Refinement Area #2: 65th Avenue

Option 2: Widening to Existing Sections of 65th Avenue Only

Goal Statement

This option addresses forecasted future congestion on 65th Avenue. The 65th Avenue corridor serves as the major north-south route east of I-5. It serves residents and medical facilities located east and west of 65th Avenue, notably the Legacy Meridian Park hospital. 65th Avenue is owned and maintained by Washington County. Although current traffic levels are within accepted County and City standards, future traffic is problematic due to expected residential and business growth. This facility has some sidewalk gaps and lacks bicycle lanes.

Potential Solution

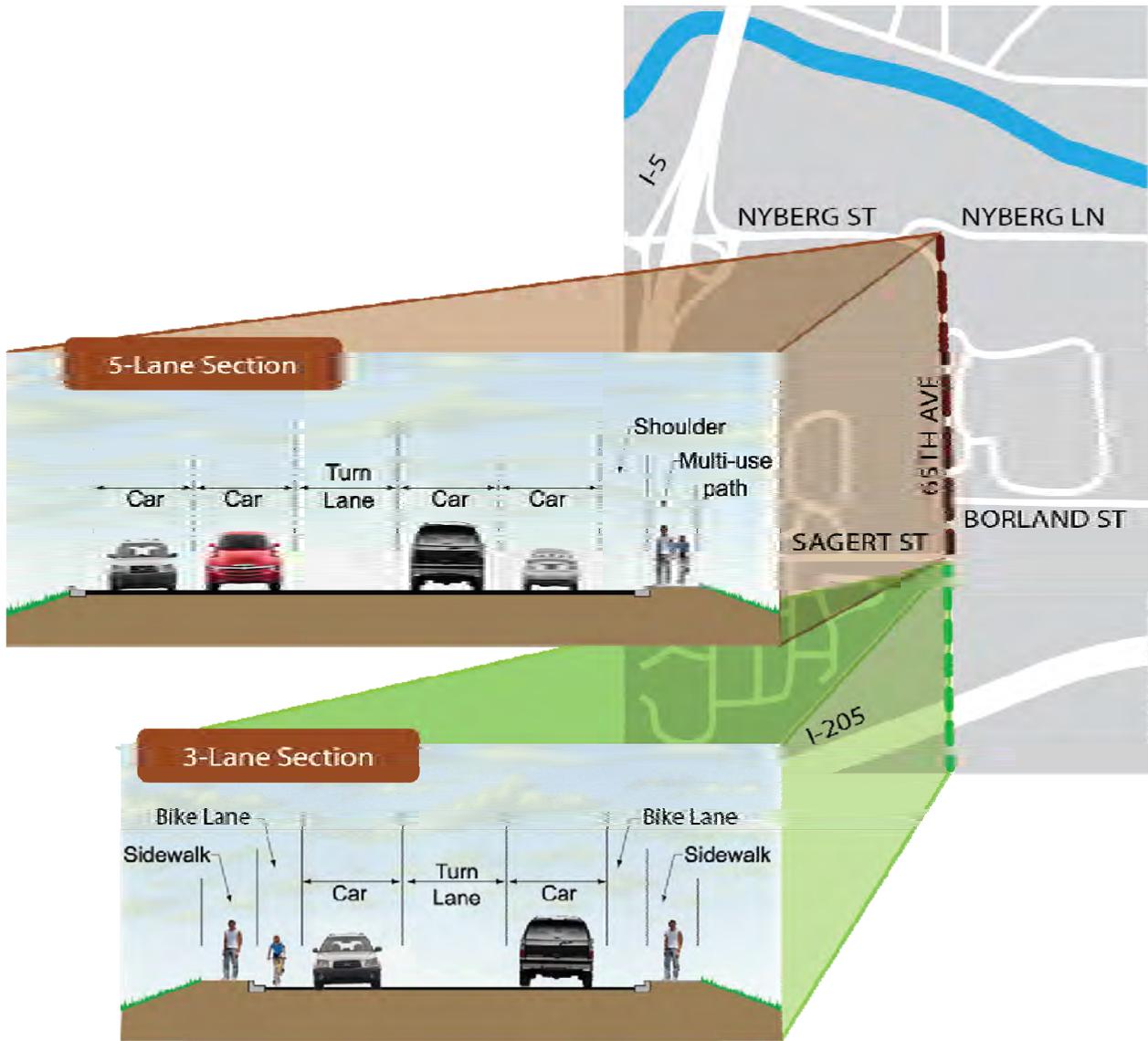
This potential solution consists of the following:

- Widen 65th Avenue to 4 or 5 lanes between Nyberg Road and Sagert Street
- Widen the road to 3 lanes south of Sagert Street across I-205 to city limits
- Address the dips in the existing road
- Bicyclists and pedestrians would be accommodated via:
 - o A separated bicycle and pedestrian multi-use path located near 65th Avenue, OR
 - o Via continuous bicycle lanes and sidewalks on 65th Avenue
- New traffic signal at Sagert Street and 65th Avenue would operate in conjunction with the existing signal at 65th Avenue and Borland (traffic progresses through both intersections in one signal cycle) OR
- Realign intersections at Sagert Street/65th and 65th/Borland into one intersection

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • Helps meet future motor vehicle demand along 65th Avenue • Little new vehicle activity attracted to the roadway (150-200 new PM peak hour vehicles) over what is expected without widening 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Little effect realized city-wide 	
Design Constraints / Considerations	<ul style="list-style-type: none"> • Widening north of Borland to Nyberg street to accommodate bicyclists or a multi-use path likely possible with minor impacts until the structure crossing Nyberg Creek and the wetlands area • Widening for lane/capacity likely to involve more significant right of way and utility impacts • Realignment of Borland/Sagert intersection to one location, likely the current location of Sagert/65th • Alignment dictates the extent of impacts, but could include the utility substation, or private structure 	
Consideration Area	Comments	Score

Environmental / Policy Considerations

- Realigning the Sagert and Borland intersections would have right-of-way impacts
- Widening the roadway would require some easements
- Replacing the bridge over Nyberg Creek Greenway to accommodate bicyclists and pedestrians on the structure



Refinement Area #2: 65th Avenue

Option 3: Extending North into River Grove AND Widening Existing Section

Goal Statement

This option provides an alternative to crossing the Tualatin River in a north-south direction east of I-5, as well as addresses forecasted future congestion on 65th Avenue. The 65th Avenue corridor serves as the major north-south route east of I-5. It serves residents and major medical facilities located east and west of 65th Avenue, notably the Legacy Meridian Park hospital. 65th Avenue is owned and maintained by Washington County. Although current traffic levels are within accepted County and City standards, future traffic is problematic due to expected residential and business growth. This facility has some sidewalk gaps and lacks bicycle lanes.

Potential Solution

- Extend 65th Avenue to the north as described in Option 1
- Widen the existing sections of 65th Avenue as described in Option 2

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • Combination of extending 65th Avenue and widening the roadway is similar to the extension alone • Widening allows capacity to service the future demand on the roadway and at intersections 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Similar effects as the 65th Avenue extension 	
Design Constraints / Considerations	<ul style="list-style-type: none"> • See constraints/considerations from the two previous options 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Solution requires multi-jurisdictional coordination • Adjacent to land zoned high density residential where transportation facilities are an allowed use • Impacts to Metro Riparian class Habitats I-III • The City of Rivergrove does not have a TSP 	

Refinement Area #3: North/South Connectivity

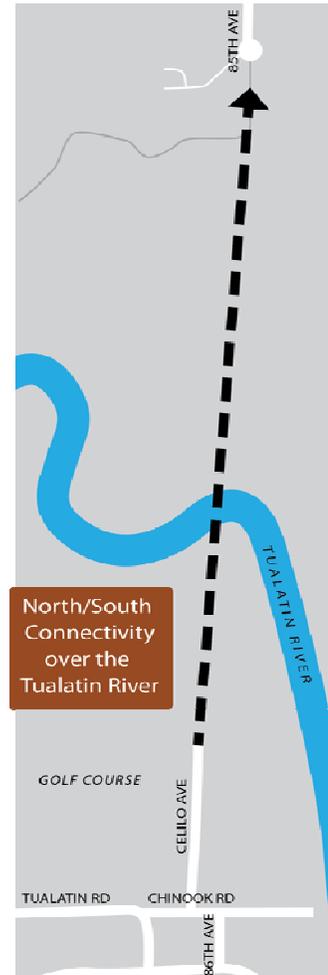
Option 1: Extension East of Country Club and West of Railroad Track

Goal Statement

This option improves connectivity in the north-south direction west of I-5. Connections in Tualatin west of I-5 are limited to Boones Ferry Road and 99W in the north-south direction, and Tualatin Road and Herman Road in the east-west direction. In the 2001 Tualatin TSP, there was a project to extend Tualatin Road to connect with Boones Ferry Road, and an extension to the north to connect with Hall Boulevard in Tigard.

Potential Solution

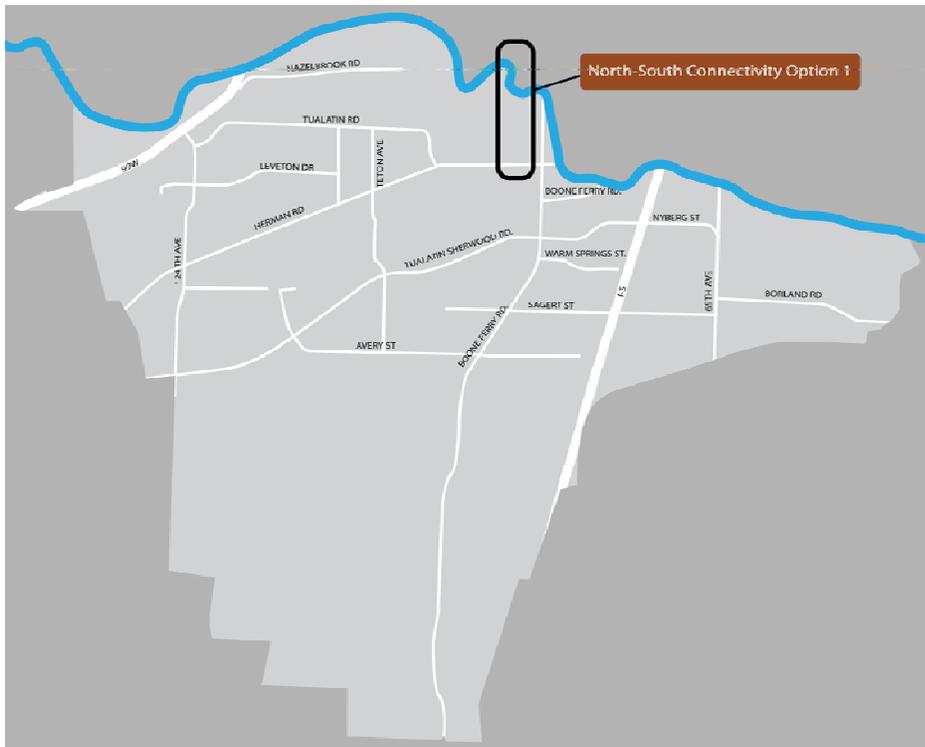
- An extension west of the railroad tracks, in the general vicinity of SW 86th Avenue east of the Country Club appears to be feasible
- Road would extend northward in the vicinity of SW Celilo Road and connect with SW 85th Avenue north of the Tualatin River



Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • New extension allows connectivity north/south across the Tualatin River • New roadway has the potential to carry up to 1,000 – 1,200 vehicles in each direction during PM peak hour • Will increase traffic on Boones Ferry Road in front of Tualatin Community Park – uncertain whether signal warrant would be met 	

Consideration Area	Comments	Score
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Tualatin, Herman, 99W, and Boones Ferry Road (north of the Tualatin River) experience a moderate decrease in traffic Boones Ferry Road immediately south of Celilo Road has an increase in traffic leading up to the extension 	●
Design Constraints / Considerations	<ul style="list-style-type: none"> Does not impact Tualatin Community Park At least one, if not two railroad crossings would be upgraded and require crossing orders from ODOT Rail North improvements to alignment would extend along the west edge of the tracks and tie into 85th Ave on the north side of the river 	◐
Environmental / Policy Considerations	<ul style="list-style-type: none"> An extension of Hall Boulevard into Tualatin is included in the Tigard TSP (long-term not fiscally constrained project list) and in the Washington County TSP 	○

North-South Connectivity Option 1 Vicinity



Refinement Area #3: North/South Connectivity

Option 2: Widen Boones Ferry Road

Goal Statement

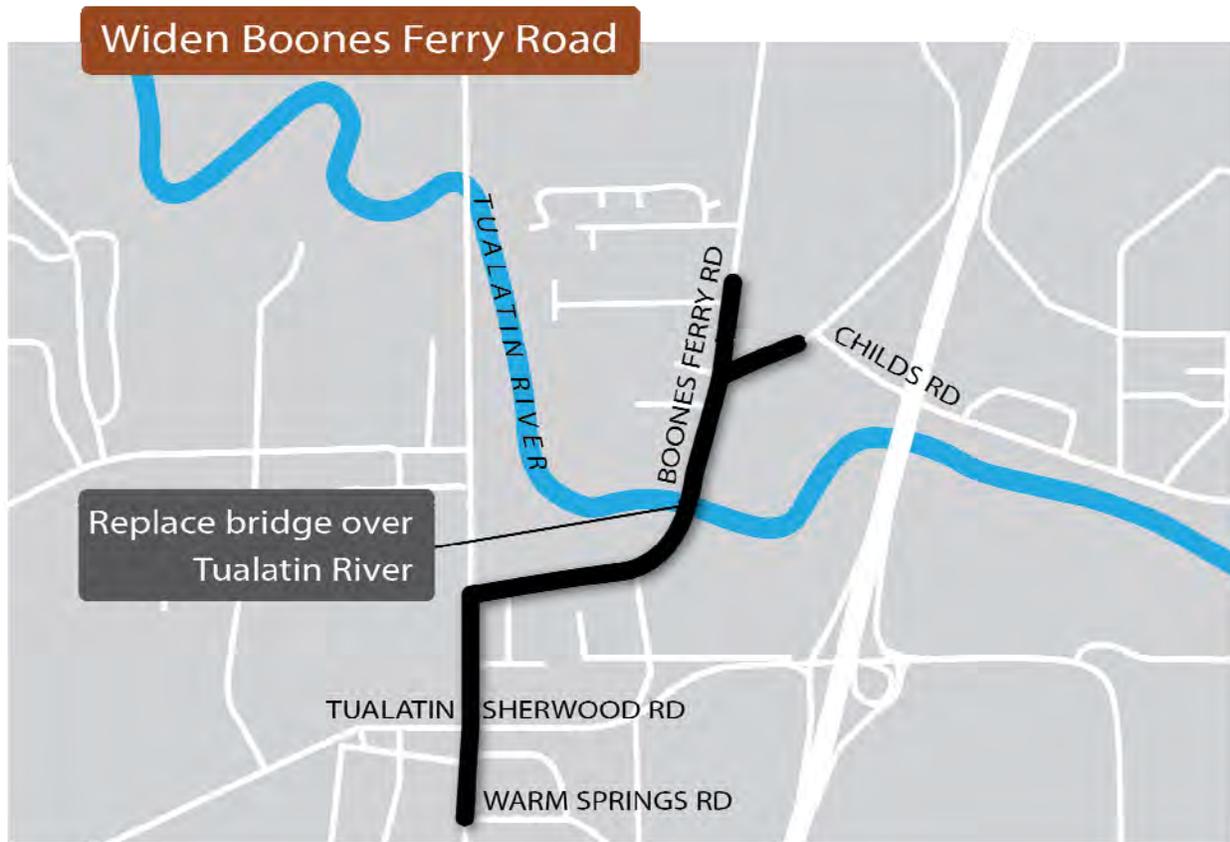
This option improves connectivity in the north-south direction west of I-5, by increasing capacity along the existing Boones Ferry Road between downtown and north of the river, towards the communities of Durham and Tigard. Connections in Tualatin west of I-5 are limited to Boones Ferry Road and 99W in the north-south direction, and Tualatin Road and Herman Road in the east-west direction. In the 2001 Tualatin TSP, there was a project to extend Tualatin Road to connect with Boones Ferry Road, and an extension to the north to connect with Hall Boulevard in Tigard. The extension of Tualatin Road project would have impacted Tualatin Community Park. After a robust community conversation the City decided not to pursue this project, and an amendment was voted in March 2011 to amend the City Charter (Chapter XI) to prevent the transfer, sale, vacation or major change in use of city parks without a public vote.

Potential Solution

- Widening Boones Ferry Road between the intersection of Lower Boones Ferry Road to the north and Warm Springs to the south
- Widening explored through:
 - o Retaining a three-lane section with intersection improvements and coordinated signal timing
 - o Widening to four lanes, limiting turning pockets to intersections
 - o Widening to five lanes, with two travel lanes in each direction and a center-turn lane transitioning to a turn pocket at intersections
- All options assume replacement of the Tualatin River bridge

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • Potential to shift traffic from Tualatin-Sherwood Road (east of Boones Ferry Road) and away from the Nyberg interchange 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Moderate shift in traffic from Hwy 99W/Durham Road to Boones Ferry Road • Moderate shift in traffic from I-5 between the Boones Ferry Road and Nyberg interchanges to Boones Ferry Road 	

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • 4 lane and 5 lane options have significant impacts to right of way/access • All options likely require coordination and improvements to the railroad crossing north of the bridge • Widening at Boones Ferry Road and Tualatin-Sherwood Road south of the intersection is problematic • Constraints are railroad to the west and McDonald's drive thru to the east 	○
Environmental / Policy Considerations	<ul style="list-style-type: none"> • ODOT is interested in a jurisdictional transfer from ODOT to the City if bridge is replaced • The City or ODOT could initiate the transfer process • The City would then be responsible for maintenance and upkeep on the new or modified bridge • The County would be required to approve the transfer • The existing bridge is within the Tualatin River Greenway 	○



Refinement Area #3: North/South Connectivity

Other Options Considered but Dismissed

Extension west of Country Club

The team considered placing the northerly extension west of the Country Club, but dismissed this for the following reasons:

1. Traffic flows on the new arterial lessened traffic on 99w, but did not address congestion on Tualatin arterials, including Boones Ferry Road.
2. Disruption to the community in the Hazelbrook area, and especially for residents at its eastern edge including SW Shawnee Trail, and SW Cheyenne Way, was thought to be too great.
3. Geometrically, it was deemed difficult to place an arterial in this vicinity without creating an additional 90 degree turn. This in turn would create safety concerns associated with driver expectation, speed, and sight visibility.
4. This general location is aligned with a northward bend in the Tualatin River, which could make construction of a new river crossing difficult.
5. Connections with the roadway network in Tigard would be difficult. SW 92nd Avenue is the nearest roadway north of the river but connections to it are problematic, and it does not continue northward beyond SW Durham Road.

Extension north of SW 90th Avenue

The team explored extending SW 90th Avenue northward, but dismissed this concept for the following reasons:

1. It would bisect the Tualatin Country Club, a regional destination.
The Tualatin Country Club serves patrons from throughout the south Metro area and is a major employer in Tualatin. Bisecting the club would make it difficult for it to continue its current operations as a golf course.
2. Connections with the roadway network in Tigard would be difficult. Extending SW 90th Avenue north across the Tualatin River connects with Cook Park in Tigard. It would be difficult to design an alignment that avoided impacts to this park, though it could be possible to align the river crossing so that it touched down east of the park's boundary.

This alignment could be reconsidered in the future if the Country Club were to redevelop to another use.

Refinement Area #4: Herman Road and Tualatin Road

Goal Statement The refinements along these two corridors aim to encourage some through traffic to move onto Herman Road, and off of Tualatin Road, as a way to improve safety and livability for residents north of Tualatin Road. Herman Road and Tualatin Road run parallel to each other in north Tualatin. Both provide connections to downtown at the east and to 99W at the west. Herman Road is located in Tualatin’s industrial center, and Tualatin Road features some industrial and manufacturing to the south, but residential to the north.

Potential Solution The following projects have been explored as a package:

- A. Reclassify Herman Road as a Minor Arterial, and retain Tualatin Road’s classification as a Major Collector
- B. Upgrade the remaining section of Herman Road as a 3-lane cross section between Tualatin Road and Teton Road
- C. Lowering speeds on Tualatin Road
- D. Eliminate the free right turn at Tualatin Road at the intersection with Herman Road, and consider a roundabout at this location
- E. Add signals at the east and west ends of Tualatin Road, such as in the vicinity of 115th Avenue and Jurgens Avenue
- F. Remove trees at intersection of Tualatin Road and 108th Avenue to improve sight distance at this location
- G. Modify channelization of 124th Avenue and Tualatin Road to encourage traffic to proceed along 124th to the intersection with Herman Road. Consider a roundabout at this location
- H. Signage that indicates that Tualatin Road is for local traffic

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • Major effect is shifting of traffic from Tualatin Road to Herman Road • On the west end traffic is diverted to 124th Avenue • On the east end traffic is diverted to Herman Road • Small amount of traffic shifted to Tualatin-Sherwood Road • Some traffic diverted along Hwy 99W up to Durham Road 	●
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Minimal effects to city-wide traffic • Majority of effects are local 	●

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • Traffic calming projects can be installed with minor impacts • Projects could be chicane type improvements (lane weave) or speed tables • Coordination with Tualatin Valley Fire and Rescue and Tualatin Police likely needed • Improvements to Herman Road and the intersection of Tualatin/Herman Road would require right of way but are straight forward with likely impacts to some access • Signal improvements at the intersection of Tualatin Rd/108th Ave were not met as recently as the last 5 years • New locations for signals recommended at Jurgens and 115th have not been analyzed for warrants • Removal of tree(s) at Teton, at the SW quadrant improve sight distance but have impacts to natural resources 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Some adjacent land would be required north of Herman to widen to three lanes • Potential impact some landscaping and parking • Planter circles and speed table design standards would need to be added to the City's code 	◐





City of Tualatin

Refinement Areas (Part 2)

Tualatin TSP

Presentation to
Tualatin Transportation Task Force
August 23, 2012

Goal of Tonight's Discussion

- **Discuss final refinement areas**
 - North-south connectivity
 - Tualatin-Sherwood Road
 - Boones Ferry Road
 - Downtown connectivity
- **Recommend what projects move forward for packaging and discussion at Transportation Summit**

Last Week's Meeting

- We heard a few things from you
 - Provide more details about our analysis - this helps you weigh the tradeoffs
 - Be creative - think outside the box
 - Be sensitive - to parks, homes/businesses, historic properties

A perspective view of a road with a white center line and a red and white striped traffic cone on the right side.

This presents
a challenge...



Your Team's Goals for Tonight

1. Provide as many details as we can
2. Put forward some ideas that address the challenges
3. Be sensitive to the constraints that exist

A Reminder of our Goals and Objectives

No.	Goal	Representative Criteria
1.	Access and Mobility	Provide efficient and quick travel between point A and B, Provide connectivity within the City between popular destinations and residential areas
2.	Safety	Address known safety locations, address geometric deficiencies
3.	Vibrant Community	Support a livable community with family-friendly neighborhoods, maintain a small town feel
4.	Equity	Promote a fair distribution of benefits and burdens, consider access to transit for all users
5.	Economy	Support a vibrant City Center and community, Consider positive and negative effects of alternatives on adjacent residential and business areas
6.	Health/Environment	Provide interconnected networks for bicyclists and pedestrians, protect park land and create an environmentally sustainable community
7.	Ability to be Implemented	Promote fiscal responsibility, strive for broad community and political support



Refinement Area #3: North to South Connectivity



Goal Statement

Improve north-south connectivity west of I-5

From our July Meeting...

Look at a hybrid option that:

- Constructs a two-lane road connecting from Tualatin Road to Hall Boulevard north of the river
- Widens Boones Ferry Road to five lanes between Martinazzi and Lower Boones Ferry
- Assumes extension of 65th Avenue





SW Cello St

SW Chinook St

SW 86th Ave

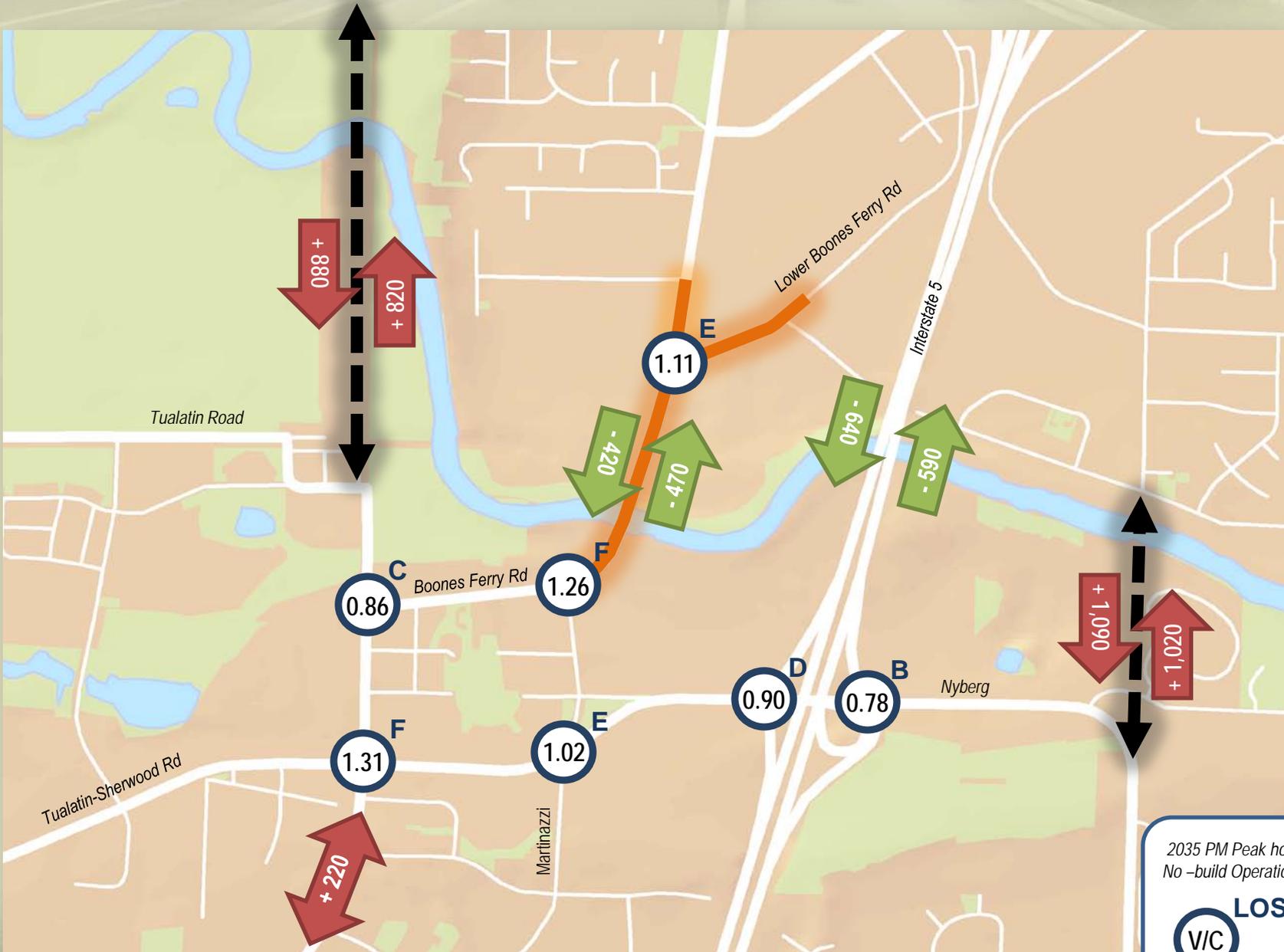
SW Tualatin Rd

© 2012 Google

45°23'12.72" N 122°45'46.68" W elev 127 ft

Imagery Date: 8/20/2011





2035 PM Peak hour
No -build Operations

LOS
VIC

What Does This Do For Tualatin?

Area	Benefits	Impacts
Traffic	<ul style="list-style-type: none">• Decreases traffic on 99W, Boones Ferry Road (east of Tualatin Road), I-5• Decreases traffic on Herman and Tualatin Roads	<ul style="list-style-type: none">• Increases traffic into downtown and onto Tualatin-Sherwood Road
Design	<ul style="list-style-type: none">• Removes one 90 degree turn on Tualatin Road	<ul style="list-style-type: none">• Requires significant right of way• Additional at-grade crossing of RR tracks might be difficult
Environmental / Policy	<ul style="list-style-type: none">• Extension included in Tigard and Washington County TSPs• Does NOT impact Sweek House• If local connection is made at Tualatin Community Park, helps circulation into park	<ul style="list-style-type: none">• Additional environmental analysis would be needed related to river crossing, crossing of trail(s), and noise and air quality assessments



Discussion

Technical Team Does NOT Offer a Recommendation:

Ultimately, this needs to be a Community Decision

Refinement Area #5: Tualatin-Sherwood Road

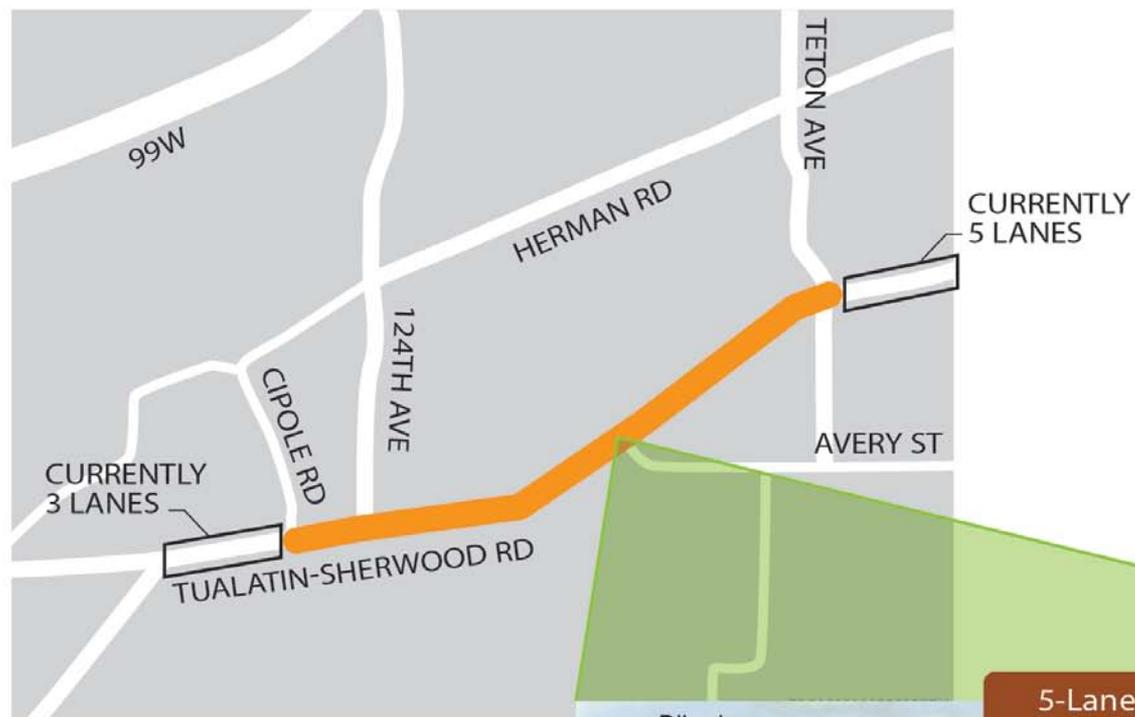




Goal Statement

Relieve congestion and improve safety for all modes

Option #1: Complete Five Lane Section



TBG101311052920PDX

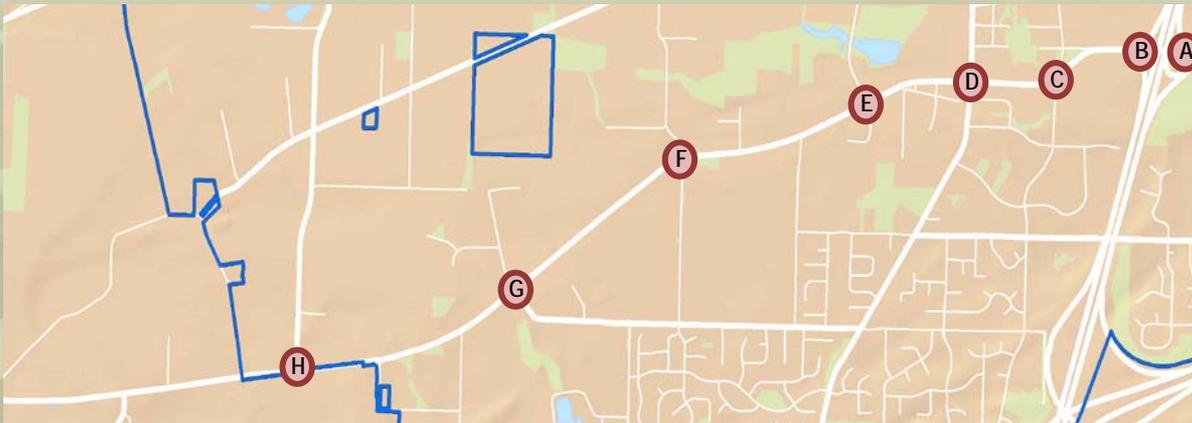
- Widens Tualatin-Sherwood Road to five lanes between Martinazzi and Lower Boones Ferry
- Road is currently five lanes east of Teton



Option #2: Retain Three Lane Section

- One travel lane in each direction
- Center turn lane
- Retains shoulder bicycle lanes and sidewalks
- Coordinated signal timing
- Spot improvements at key intersections

What Do These Options Do For Traffic?



PM Peak Hour Operations

Tualatin-Sherwood Road &	2011 Existing	Retain Three Lane Cross Section	Widen to Full Five-Lane Cross Section
A I-5 Northbound	0.68 (B)	0.78 (B)	0.78 (B)
B I-5 Southbound	0.79 (D)	0.90 (D)	0.90 (D)
C Martinazzi Ave	0.94 (D)	1.02 (E)	1.02 (E)
D Boones Ferry Road	0.93 (D)	1.31 (F)	1.31 (F)
E 90 th Avenue	0.60 (C)	0.78 (C)	0.78 (C)
F Teton Avenue	0.79 (D)	0.95 (E)	0.95 (E)
G Avery St	0.71 (B)	0.99 (E)	0.92 (D)
H 124 th Avenue	0.60 (C)	1.33 (F)	0.92 (C)

V/C ratio (Level-of-Service)

Other Connectivity Options

Option	West of Boones Ferry Rd	East of Boones Ferry Road
65 th Extension	+ 50 vehicles	+180 vehicles
North/South Connection	+ 170 vehicles	-50 vehicles
Hybrid (both 65 th and North/South)	+130 vehicles	+80 vehicles
TSM Option	Negligible	Negligible

What are the Other Benefits to Tualatin?

Area	Five-Lane	Three-Lane
Design Constraints	<ul style="list-style-type: none">• Setbacks appear to allow widening with minor impacts to properties• Some drainage/water quality basins may require relocation	<ul style="list-style-type: none">• None – this largely retains existing cross section. Widening at key intersections could be accommodated with no major design concerns
Environmental / Policy	<ul style="list-style-type: none">• Project is included in Washington County TSP	<ul style="list-style-type: none">• This option is not consistent with the Washington County TSP



Discussion

Technical team
recommendation:

Move five-lane option forward
to summit

Refinement Area #6: Boones Ferry Road





Goal Statement

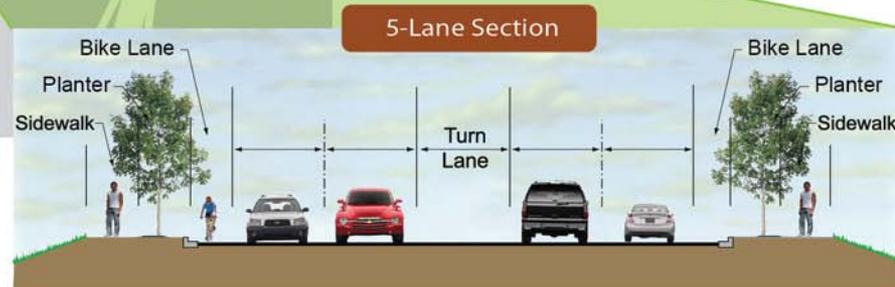
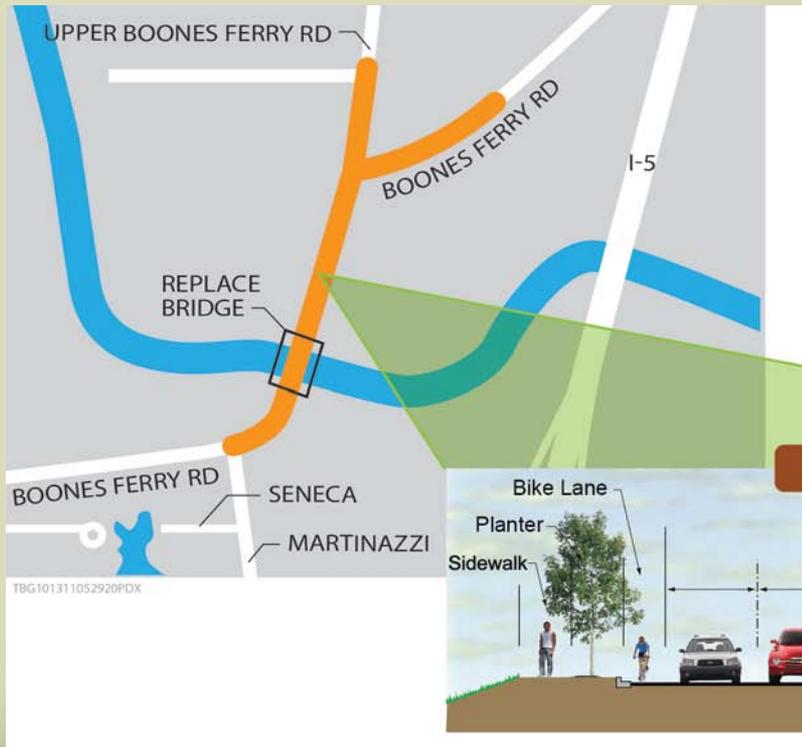
Reduce congestion and improve safety on
Boones Ferry Road throughout
Tualatin

Three Segments of Boones Ferry Road

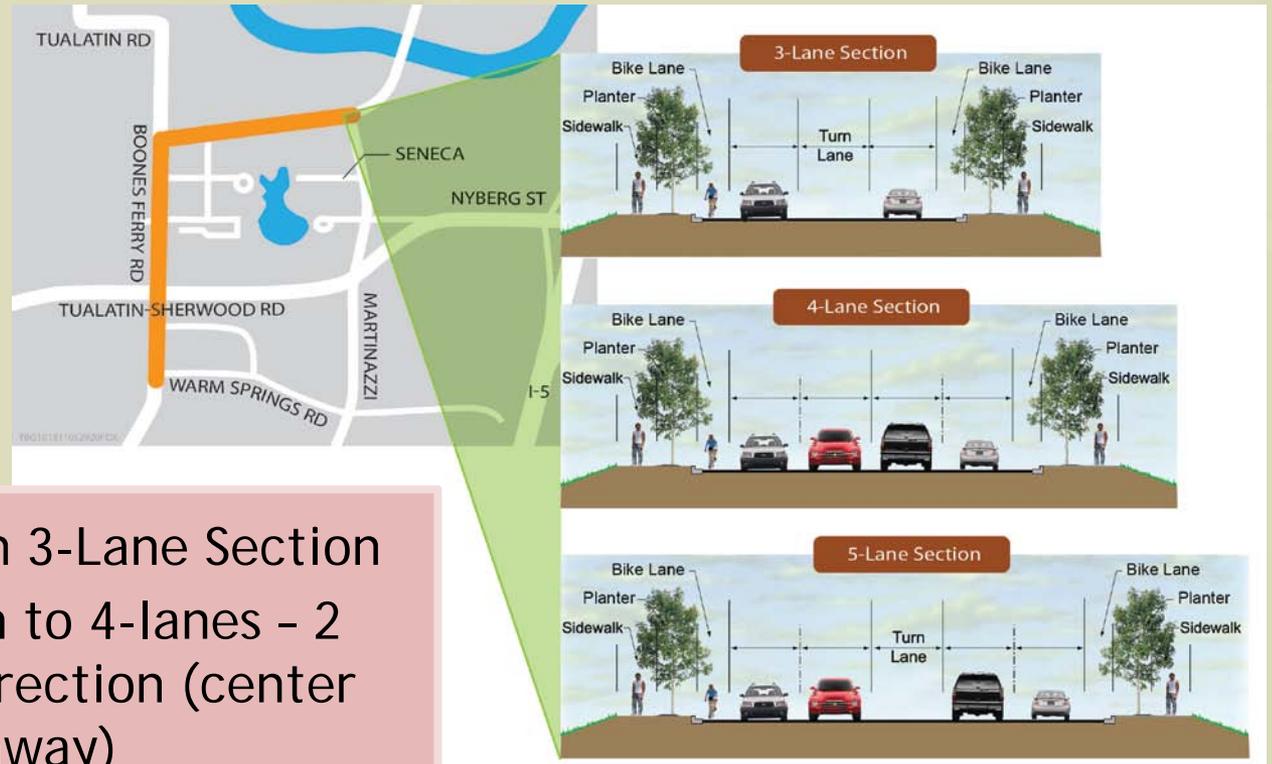


Segment A: North of Martinazzi

- Widen to five lanes from intersection with Lower Boones Ferry to bridge
- Replace current bridge, widen to four lanes with bike lanes and sidewalks
- Transition to three lanes south of bridge with transition at Martinazzi (left turn lane)

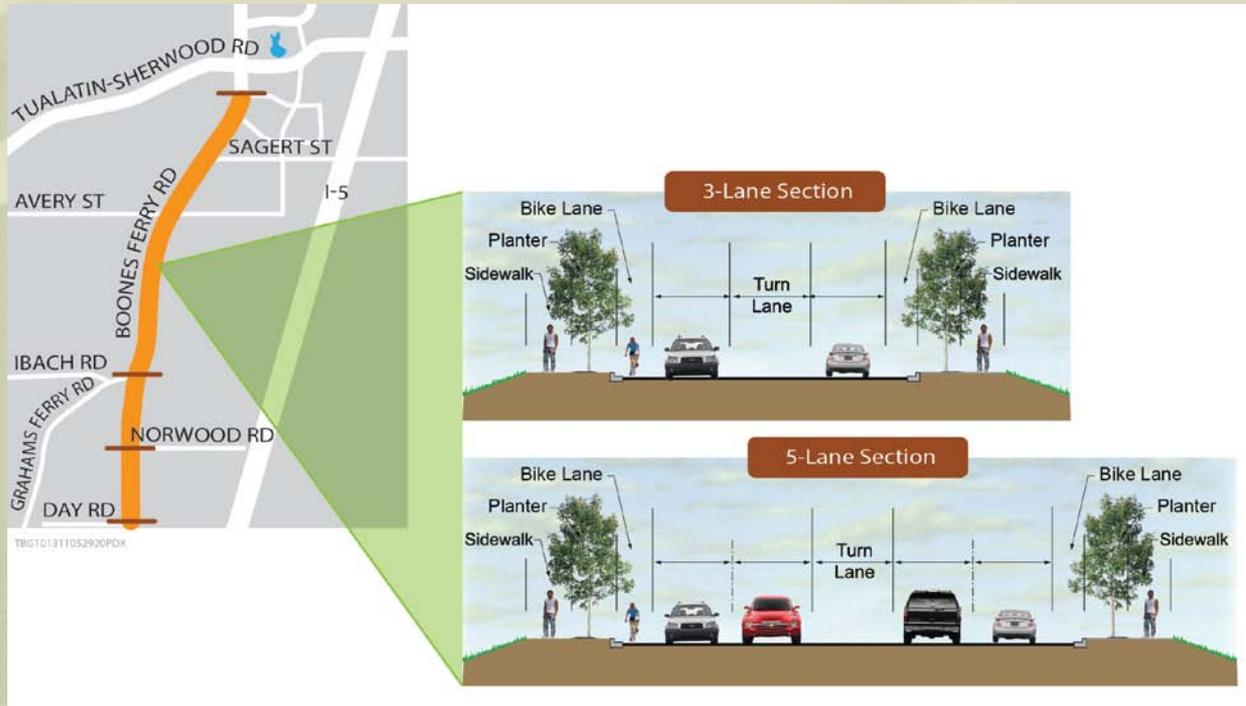


Segment B: Through Downtown



- Option 1: Retain 3-Lane Section
- Option 2: Widen to 4-lanes - 2 lanes in each direction (center turn lane goes away)
- Option 3: Widen to 5-lanes - 2 lanes in each direction with center turn lane

Segment C: South of Warm Springs



- Option 1: 3-lane section with widening at key intersections, coordinated signal timing
- Option 2: 5-lane section (2 travel lanes in each direction with center turn lane)

Boones Ferry Road Traffic: All Options



PM Peak Hour Operations

Boones Ferry Road & [Label]	2011 Existing	2035 No-Build	Widen South of Tualatin-Sherwood Rd to Norwood	Widen North of Martinazzi to Lower Boones
A Lower Boones Ferry	0.76 (C)	1.11 (E)	1.11 (E)	0.89 (C)
B Martinazzi Ave	0.89 (D)	1.26 (F)	1.26 (F)	1.33 (F)
C Tualatin Road	0.62 (B)	0.86 (C)	0.86 (C)	0.92 (C)
D Tualatin-Sherwood Rd	0.93 (D)	1.31 (F)	1.30 (F)	1.31 (F)
E Sagert St	0.75 (C)	1.11 (E)	0.84 (C)	1.11 (E)
F Avery St	0.87 (C)	1.15 (F)	0.96 (D)	1.15 (F)
G Ibach St	0.70 (B)	0.98 (D)	0.88 (C)	0.98 (D)

V/C ratio (Level-of-Service)

Other Connectivity Options

Option	South of Tualatin-Sherwood Rd	TSR to Martinazzi Rd	North of Martinazzi
65 th Extension	- 70 vehicles ↓	-180 vehicles ↓	-440 vehicles ↓
North/South Connection	+ 520 vehicles ↑	-270 vehicles ↓	-570 vehicles ↓
Hybrid (both 65 th and North/South)	+220 vehicles ↑	-500 vehicles ↓	-890 vehicles ↓

What are the Benefits for Tualatin?

Area		Segment A	Segment B	Segment C
Design	3-lane	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> No impacts
	4-lane	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Would require ROW Access impacts 	<ul style="list-style-type: none"> N/A
	5-lane	<ul style="list-style-type: none"> Minor impacts Little ROW needed Railroad coordination needed 	<ul style="list-style-type: none"> Would require additional ROW Would require reconstructed accesses 	<ul style="list-style-type: none"> Could improve curves and grade for sight distance improvements Some structures close to ROW line
Environmental/ Policy	3-lane	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None
	4-lane	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Business impacts Difficult turning movements 	<ul style="list-style-type: none"> N/A
	5-lane	<ul style="list-style-type: none"> Some landscaping impacts adjacent to road 	<ul style="list-style-type: none"> Impacts businesses in this segment 	<ul style="list-style-type: none"> Impacts setbacks and landscaping (no houses) Near Woodrose Nature Park



Discussion

Technical team recommendation:

Move forward with

Segment A: Five lanes

Segment B: Three lanes

Segment C: Three lanes

To the summit



Refinement Area #7: Downtown Connectivity

Tualatin-Sherwood Road/Boones Ferry Road Intersection



Notes:

- Signal timing is already optimized at this intersection, but other phasing/timing/coordination alternatives may be tested
- Changing the signal timing to 120 seconds could improve the V/C ratio from 1.30 (F) to 1.22 (F)
- Intersection is well over capacity, even a test of 140 second signal cycle with right turns on every approach yields a V/C of 1.06 (E)

PM Peak Hour Operations

	Tualatin-Sherwood Road/Boones Ferry Road
Existing Conditions	0.93 (D)
2035 No-Build	1.31 (F)
Added Eastbound Right Turn Pocket	1.18 (E)
Added Westbound Right Turn Pocket	1.31 (F)
Added Southbound Right Turn Pocket	1.18 (E)

V/C ratio (Level-of-Service)

Other Connectivity Options

Option	West of Boones Ferry Rd	East of Boones Ferry Road	North of TSR	South of TSR
65 th Extension	+ 50 vehicles ↑	+180 vehicles ↑	-60 vehicles ↓	- 70 vehicles ↓
North/South Connection	+ 170 vehicles ↑	-50 vehicles ↑	+420 vehicles ↑	+ 520 vehicles ↑
Hybrid (both 65 th and North/South)	+130 vehicles ↑	+80 vehicles ↑	+280 vehicles ↑	+220 vehicles ↑
TSM Option	Negligible	Negligible	Negligible	Negligible

Connectivity in the Downtown Core



- Bridge over the lake was screened out
- Tunnel under the lake was screened out
- At least we can improve connectivity for bicyclists and pedestrians

Revisiting Refinement Area #4: Herman Road and Tualatin Road

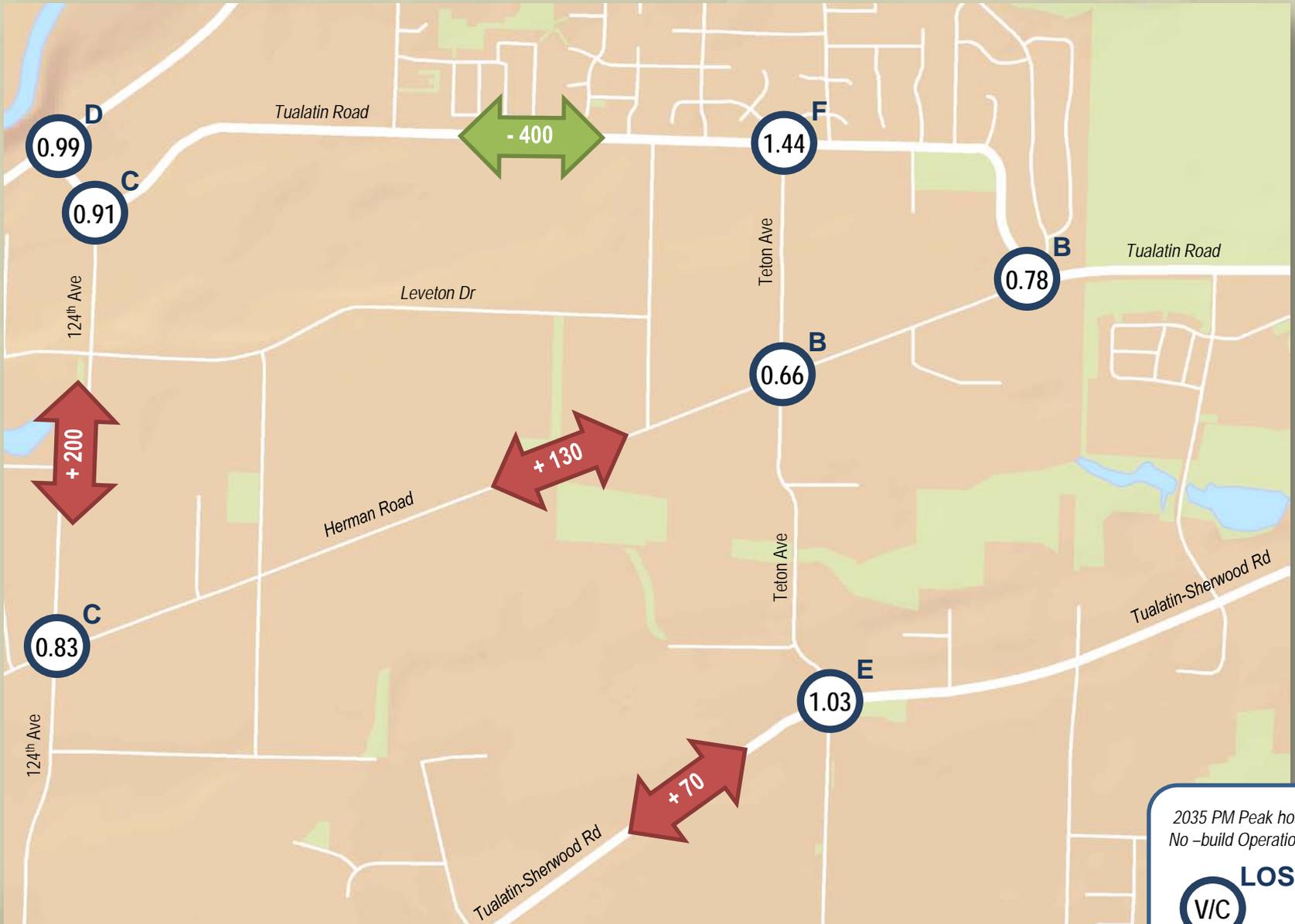


Refined Solution



Add something on teton

- A. Reclassify Herman to a minor arterial
- B. Upgrade section of Herman to 2 lanes
- C. Lower speeds on Tualatin
- D. Eliminate free right turn at Tualatin/Herman intersection, consider roundabout
- E. Add signals at the east and west ends of Tualatin
- F. Remove trees at Tualatin and 108th
- G. Modify channelization of 124th and Tualatin, consider roundabout
- H. Signage to indicate that Tualatin is for local traffic

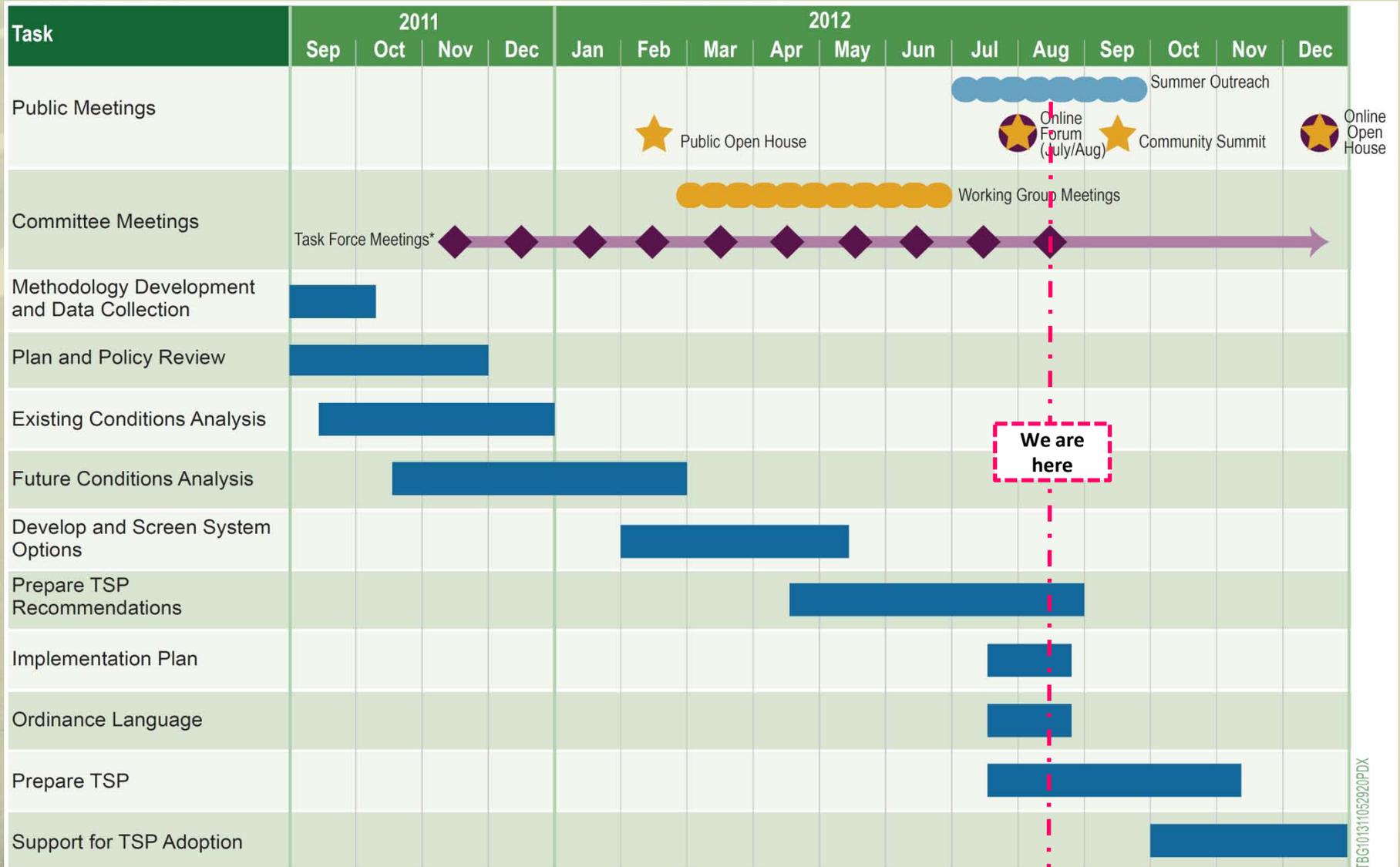


2035 PM Peak hour
 No -build Operations
 LOS
 VIC

Thank You! What Happens Next?

- Package all the recommendations
- Traffic analysis of the system together
 - Does it work?
 - What are we benefits to Tualatin?
 - What are the benefits to the region?
 - What are the costs?
- Transportation Community Summit in September (September 20th)

Transportation System Plan Timeline



TBG/01311052920PDX



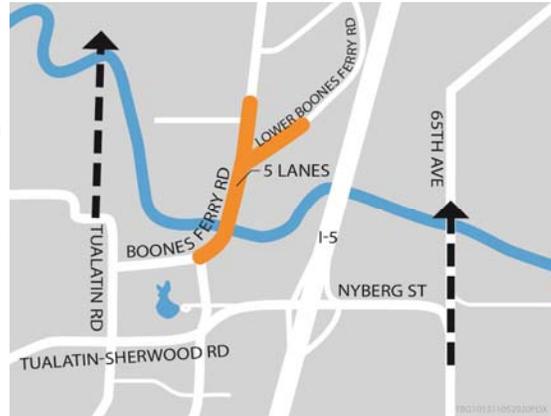
Thank you!

Refinement Area #3: North/South Connectivity

Option 3: Hybrid. Two-lane local road connecting to Hall Boulevard, extending 65th Avenue across the Tualatin River, and Widening Boones Ferry Road.

Goal Statement

This option improves connectivity in the north-south direction west of I-5. Connections in Tualatin west of I-5 are limited to Boones Ferry Road and 99W in the north-south direction, and Tualatin Road and Herman Road in the east-west direction. In the 2001 Tualatin TSP, there was a project to extend Tualatin Road to the north to connect with Hall Boulevard in Tigard.



Potential Solution

- An extension west of the railroad tracks, in the general vicinity of SW 86th Avenue east of the Country Club
- Road would extend northward in the vicinity of SW Celilo Road and connect with SW 85th Avenue north of the Tualatin River
- Combine extending to Hall Boulevard with widening Boones Ferry Road, and extending SW 65th Avenue north over the River

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • New extension allows connectivity north/south across the Tualatin River • New two lane local roadway could carry up to 800-900 vehicles in each direction during the 2035 PM peak hour • Will increase traffic on Boones Ferry Road in front of Tualatin Community Park – uncertain whether signal warrant would be met • Tualatin-Sherwood Rd and Boones Ferry Rd V/C deteriorates slightly from 1.30, LOS F to 1.37, LOS F • Connections would increase PM Peak hour intersection volume by 400 vehicles, primarily north/south through vehicles. 	

Consideration Area	Comments	Score
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Tualatin, Herman, 99W, and Boones Ferry Road (north of the Tualatin River) experience a moderate decrease in traffic Boones Ferry Road immediately south of Celilo Road has an increase in traffic leading up to the extension 	●
Design Constraints / Considerations	<ul style="list-style-type: none"> Does not physically impact Tualatin Community Park At least one, if not two railroad crossings would need crossing improvements and would require coordination with the Railroad and ODOT Rail. North improvements to alignment would extend along the west edge of the tracks and tie into 85th Ave on the north side of the river 	◐
Environmental / Policy Considerations	<ul style="list-style-type: none"> An extension of Hall Boulevard into Tualatin is included in the Tigard TSP (long-term not fiscally constrained project list) and in the Washington County TSP Potential impacts (likely temporary) to the Tualatin River and adjacent natural resources. Potential impacts to wetlands/sensitive areas west of the existing railroad tracks north of Tualatin Road. 	○

Refinement Area #5: Tualatin-Sherwood Road

Option 1: Five-Lane Section Teton to Cipole

Goal Statement Relieve congestion and improve safety for all modes along Tualatin-Sherwood Road within the City of Tualatin.

Tualatin-Sherwood Road serves as the major east-west arterial through Tualatin. It connects residents, employees, and visitors to the I-5 freeway system, to the community of Sherwood, and areas west. Tualatin-Sherwood Road is owned and maintained by Washington County. West of 124th Avenue average daily traffic volumes are higher than 26,000 vehicles.

Though there are continuous sidewalks and bicycle lanes throughout the corridor, including a buffered bicycle lane west of downtown, the team has heard from the community that the traffic volumes still make this corridor feel unsafe from the vantage point of a bicyclist. Crossing this arterial at key intersections can be difficult for a pedestrian.

Potential Solution Widen Tualatin-Sherwood Road to five lanes, retaining continuous buffered bicycle lanes and sidewalks between Teton to the east and Cipole to the west.

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> Serves future demand that is beginning to be seen today Minor to moderate increases in traffic seen on Avery Street, 124th Avenue, and new connection between 112th and Myslony Widening Tualatin-Sherwood Road from 3 to 5 lanes changes V/C and LOS at the following intersections: <ul style="list-style-type: none"> Improves 124th Ave: from 1.33, LOS F to 0.92, LOS C Improves Avery St: from 0.99, LOS E to 0.92, LOS D Teton Ave deteriorates slightly: from 0.95, LOS E to 1.03, LOS E 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Draws traffic away from Hwy 99W, Tualatin Road, Herman Road, and the Cipole Rd extension New traffic on Tualatin-Sherwood Road forecasted to be approximately 200-350 vehicles in each direction during afternoon rush hour 	

Consideration Area	Comments	Score
Design Constraints / Considerations	<ul style="list-style-type: none"> • Right-of-way setbacks likely allow widening with minor impacts to properties from Teton west to Cipole • Some drainage/water quality basins that would likely need to be relocated • Major design complications not anticipated 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Most widening impacts would be to landscaping • Project is included in Washington County TSP • Any widening west of Cipole would require coordination with Sherwood. 	



Refinement Area #5: Tualatin-Sherwood Road

Option 2: Transportation System Management

Goal Statement Relieve congestion and improve safety for all modes along Tualatin-Sherwood Road within the City of Tualatin.

Tualatin-Sherwood Road serves as the major east-west arterial through Tualatin. It connects residents, employees, and visitors to the I-5 freeway system, to the community of Sherwood, and areas west. Tualatin-Sherwood Road is owned and maintained by Washington County. West of 124th Avenue average daily traffic volumes are higher than 26,000 vehicles. The intersection of Tualatin-Sherwood Road and Boones Ferry Road is the most congested intersection in the community of Tualatin, and serves as a activity hub, with the WES Commuter Rail station and commercial businesses on all four corners. Crossing this arterial at key intersections can be difficult for a pedestrian.

Potential Solution The team explored keeping Tualatin-Sherwood Road as a three-lane section west of Teton, improving travel conditions via coordinated signal timing and intersection-specific treatments that would reduce overall conflicts and delay.

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> There could be a modest shift of traffic to utilize Tualatin-Sherwood Road if TSM type enhancements occur and make the corridor more efficient. Likely shift in traffic would come from Herman Road, Tualatin Road, and Avery Street. 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Most impacts would be local with little city-wide effect. 	
Design Constraints / Considerations	<ul style="list-style-type: none"> N/A. 	N/A
Environmental / Policy Considerations	<ul style="list-style-type: none"> None 	

Refinement Area #5: Tualatin-Sherwood Road

Road

Drilling Down on the Tualatin-Sherwood Road / Boones Ferry Road Intersection

Goal Statement

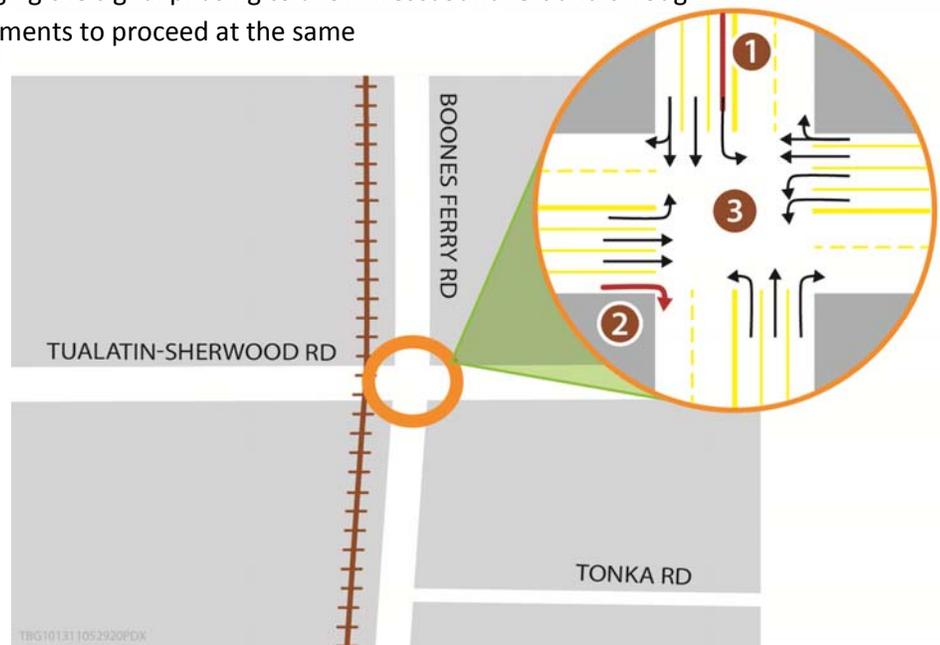
The intersection of Tualatin-Sherwood Road and Boones Ferry Road is one of the busiest in the City. It is the junction of two major arterials, serves traffic moving north-south and east-west, has commercial businesses on all four corners, and is the location of WES commuter rail service. The intersection is already wide and intimidating to pedestrians. Right-of-way is limited for further widening.

Potential Solution

The team looked into several treatments that would improve conditions at this intersection while minimizing further widening.

These include:

1. Lengthening the southbound left turn pocket on Boones Ferry Road
2. Adding a right turn pocket on Tualatin-Sherwood Road
3. Changing the signal phasing to allow westbound left and through movements to proceed at the same time.



Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • Overall intersection operation improvements allow for better east/west traffic flow. • Capacity improvements on side streets could allow for a signal timing shift on Tualatin-Sherwood Road. • The intersection is still likely to be over capacity by 2035 (PM peak hour). 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Most impacts would be local with little city-wide effect. 	
Design Constraints / Considerations	<ul style="list-style-type: none"> • Lengthening the southbound left turn pocket would have impacts to the northbound turn pocket at Nyberg Street and the Hagens parking lot. • Adding a right turn pocket on Tualatin-Sherwood Road would require improvements to the signal and railroad crossing and sidewalk/planter on Tualatin-Sherwood Road and available right-of-way width would need to be reviewed for adequacy. 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Drainage ditch impacts from the right turn pocket on eastbound Tualatin-Sherwood Rd. • Adding a turn pocket would move Tualatin-Sherwood Road closer to the business at that corner. 	

Refinement Area #6: Boones Ferry Road

Five-lane option North of Martinazzi Avenue

Goal Statement

Boones Ferry Road serves as the main north-south arterial in Tualatin west of I-5. It connects Tualatin with Wilsonville to the south and Durham and Tigard to the north. Because of its length, Boones Ferry Road serves different needs – to the south it serves the many residents of south Tualatin, and the Byrom Elementary and Tualatin High Schools. Between Warm Springs and the Tualatin River, Boones Ferry Road is one of the major streets serving the core of downtown.

North of the river it transitions to Upper Boones Ferry Road to Durham and Tigard, and Lower Boones Ferry Road to serve the Bridgeport Village Regional Center. Our team’s analysis has found the intersection of Boones Ferry Road and Lower Boones Ferry Road is one of the more congested intersections in the City. Overall the corridor has seen four reported crashes involving bicyclists, and two involving pedestrians, in the last three years.

Solution

The team explored widening Boones Ferry Road between the intersection of Lower Boones Ferry Road to the north and Martinazzi to the south, as well as keeping that section three-lanes. Assumes replacement of the Tualatin River bridge.

Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> • Could potentially shift traffic from Tualatin-Sherwood Road (east of Boones Ferry Road) and away from the Nyberg interchange. 	
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> • Would shift traffic from Hwy 99W/Durham Road, and from Interstate 5 between the Boones Ferry Road and Nyberg interchanges onto Boones Ferry Road 	
Design Constraints / Considerations	<ul style="list-style-type: none"> • Would have minor (likely temporary) impacts on natural resources. • Would require little, if any right-of-way. However accesses would be affected and would need to be reconstructed. • The railroad crossing between the bridge and Lower Boones Ferry Road would require coordination with ODOT Rail and the Railroad. 	
Environmental / Policy Considerations	<ul style="list-style-type: none"> • Widening Boones Ferry Road would not impact any structures, mainly landscaping adjacent to the roadway. 	



Refinement Area #6: Boones Ferry Road

Options between Martinazzi Avenue and Warm Springs Avenue

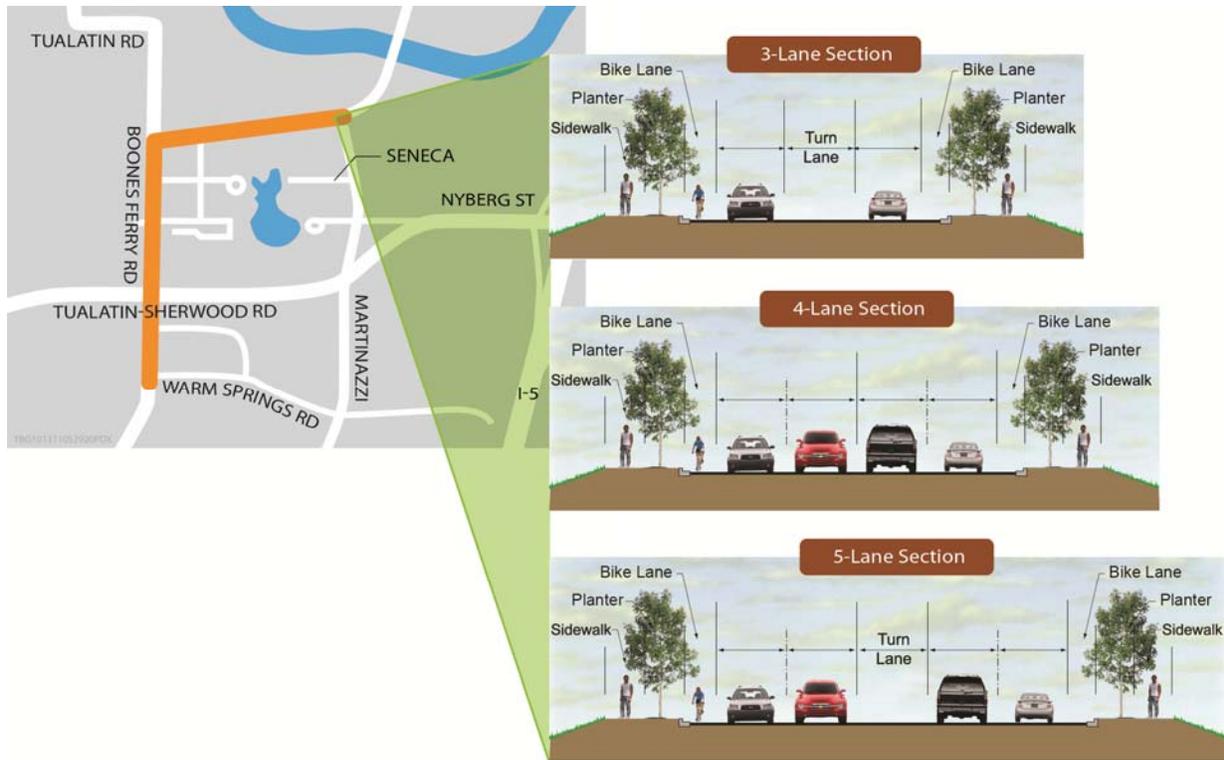
Goal Statement

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Potential Solution

The team explored three options between Martinazzi and Warm Springs:

- Retaining a three-lane section with intersection improvements and coordinated signal timing;
- Widening to four lanes, limiting turning pockets to intersections; and
- Widening to five lanes, with two travel lanes in each direction and a center-turn lane transitioning to a turn pocket at intersections.



Consideration Area	Three-Lane Section with Intersection Improvements and Signal Timing		Four-Lane Section with Turn Pockets at Intersection		Five-lane Section with Center Turn lane	
How would this solution affect traffic locally?	<ul style="list-style-type: none"> Signal timing improvements alone have a minor improvement, but there would still be intersection deficiencies. 	☺	<ul style="list-style-type: none"> Would improve operations along the corridor to better meet demand, while shifting traffic from Interstate 5 and away from the Nyberg interchange. Could add delay on the corridor due to turning vehicles in the travel lane 	☺	<ul style="list-style-type: none"> Would improve operations along the corridor to better meet demand, while shifting traffic from Interstate 5 and away from the Nyberg interchange. 	●
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Effects are mostly local with signal timing improvements. 	☺	<ul style="list-style-type: none"> The effects are mostly local Shifts traffic away from I-5 and the Nyberg Interchange 	☺	<ul style="list-style-type: none"> The biggest effect is the shift from traffic away from Interstate 5 and the Nyberg interchange. 	☺
Design Constraints / Considerations	<ul style="list-style-type: none"> Would not impact natural resources. Minor impacts associated with intersection improvements. 	●	<ul style="list-style-type: none"> Would have minor (likely temporary) impacts on natural resources. Would require right-of-way, and would impact accesses. 	☺	<ul style="list-style-type: none"> Would have minor impacts on natural resources. Would require additional right-of-way and reconstructed accesses. 	☺
Environmental / Policy Considerations	<ul style="list-style-type: none"> Few impacts – maintains the existing cross-section 	●	<ul style="list-style-type: none"> Would impact businesses and parking between Martinazzi and Warm Springs Would make it more difficult for turning vehicles to access driveways in this section. 	☺	<ul style="list-style-type: none"> Would impact businesses and parking between Martinazzi and Warm Springs. 	○

Refinement Area #6: Boones Ferry Road

Options South of Warm Springs

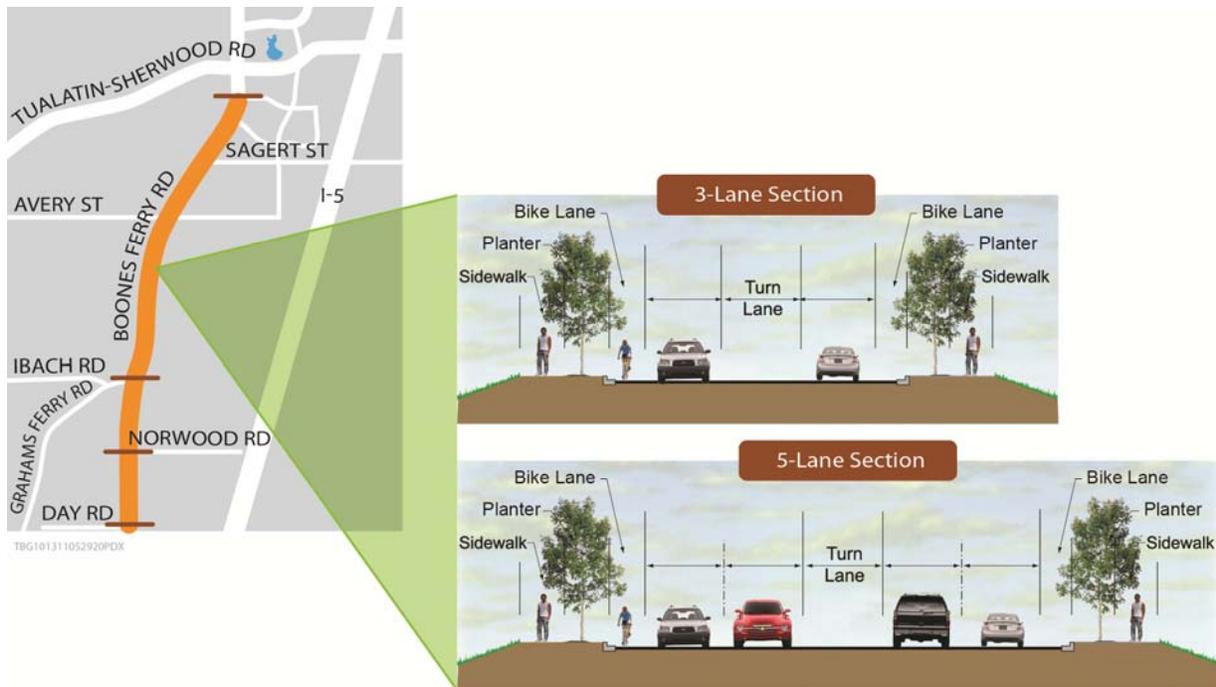
Goal Statement

Boones Ferry Road serves as the main north-south arterial in Tualatin west of I-5. It connects Tualatin with Wilsonville to the south and Durham and Tigard to the north. Because of its length, Boones Ferry Road serves different needs – to the south it serves the many residents of south Tualatin, and the Byrom Elementary and Tualatin High Schools. Overall the corridor has seen four reported crashes involving bicyclists, and two involving pedestrians, in the last three years.

Potential Solution

The team explored widening Boones Ferry Road to five lanes between Warm Springs and Ibach, and between Ibach and Norwood. Between Norwood and Day Boones Ferry Road will be expanded to three lanes (this latter project is planned for construction by Washington County).

The other option is to keep Boones Ferry Road at three lanes and improve signal timing and make targeted improvements at intersections.



Consideration Area	Three Lane Cross Section		Five Lane Cross Section	
How would this solution affect traffic locally?	<ul style="list-style-type: none"> The three lane section would slightly improve intersection operations Would not add additional vehicles on the roadway 	○	<ul style="list-style-type: none"> The 5 lane option would address 2035 PM peak hour capacity and operational deficiencies along Boones Ferry Road. Widening would add approximately 200-300 vehicles in each direction along Boones Ferry Road. Widening Boones Ferry Road from 3 to 5 lanes changes V/C and LOS at the following intersections: <ul style="list-style-type: none"> Improves Sagert St: from 1.11, LOS E to 0.84, LOS C Improves Avery St: from 1.15, LOS F to 0.96, LOS D Improves Ibach St: from 0.98, LOS D to 0.88, LOS C 	◐
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> Would have little effect on city-wide traffic 	○	<ul style="list-style-type: none"> Moderate levels of traffic would shift from the new 124th Avenue extension, 65th Avenue, and 105th Avenue/Blake Street (a local roadway) to Boones Ferry Road. 	◐
Design Constraints / Considerations	<ul style="list-style-type: none"> Would have few impacts on right-of-way as the roadway is already 3 lanes wide. Intersection improvements could require additional room to add turn lanes, etc, though few impacts are anticipated 	●	<ul style="list-style-type: none"> Widening to 5-lanes is relatively straight forward from Warm Springs to Norwood. There may be some opportunities to improve vertical profiles and horizontal curves for sight distance. Right of way varies throughout the corridor with some newer developments having full width for 5-lanes, while other areas have structures up to the ROW line. 	◐
Environmental / Policy Considerations	<ul style="list-style-type: none"> None 	●	<ul style="list-style-type: none"> Some houses are very close to Boones Ferry Road between Warm Springs and Norwood. Widening Boones Ferry Road in this area would impact setbacks and landscaping; though no houses would be impacted. Widening the roadway could have some small impacts to Little Woodrose Nature Park, depending on the design of the widening. There are no other environmental concerns as the area is already built-up residential. 	○

Refinement Area #7: Downtown Connectivity

Connections for Nyberg and Seneca

Goal Statement Connectivity within the downtown core is limited by the Lake at the Commons, the railroad line, and high traffic volumes along the Boones Ferry Road and Tualatin-Sherwood Road corridors.

Potential Solution Connect both sides of Seneca Street via a pedestrian and bicycle bridge over the lake. Connect to existing path around the lake, providing a connection for through east-west bicycle and pedestrian traffic.



Consideration Area	Comments	Score
How would this solution affect traffic locally?	<ul style="list-style-type: none"> No effects on local traffic 	N/A
How would this solution affect traffic city-wide?	<ul style="list-style-type: none"> No effects on city-wide traffic 	N/A
Design Constraints / Considerations	<ul style="list-style-type: none"> Impacts to lake are temporary and minor 	●
Environmental / Policy Considerations	<ul style="list-style-type: none"> Tualatin Commons and Tualatin Commons Park are City-owned parks The lake is human-made and a bridge and is not expected to impact habitat 	●



City of Tualatin

Putting it all Together

Tualatin TSP

Presentation to
Tualatin Transportation Task Force
September 20, 2012

Presentation Outline

- Review highlights from modal plans
 - Transit
 - Bicycle, Pedestrian, and Trail
 - Roadway
 - Intersections
 - Street Upgrades and Extensions
 - Freight
- Review traffic findings from key scenarios

Where We Are In the TSP Process

STEP 1

Identify Needs and Opportunities

Develop Goals and Objectives

Survey Existing Conditions

Forecast Future Conditions

** Public Involvement Activities Included*

STEP 2

Develop and Evaluate Solutions

Create a Long List of Potential Solutions

Screen/Evaluate How Ideas Help Meet Goals and Objectives

** Public Involvement Activities Included*

STEP 3

Make Recommendations

Prepare Draft Project Recommendations

Refine Project Recommendations

Prioritize Project Recommendations

** Public Involvement Activities Included*

STEP 4

Create and Adopt the Plan

Develop a Draft TSP

Adopt the Final TSP

** Public Involvement Activities Included*

We are here

Progress Since our August 23rd Meeting...

1. We met with City Council on September 10th
 - ✓ Direction to not model North-South Connectivity option for tonight's meeting
2. We developed the transit, roadway, bicycle, pedestrian, and trail modal plans
3. We have prepared cost estimates, funding sources, and prioritization

What We're Asking of You Tonight

- Do the modal plans reflect Tualatin's goals and objectives for its TSP?
- Do we have the priorities right?
- Talk about the traffic implications of doing nothing, vs.
 - Expanding capacity of the existing network
 - Extending 65th Avenue
 - Expanding Boones Ferry Road north of downtown

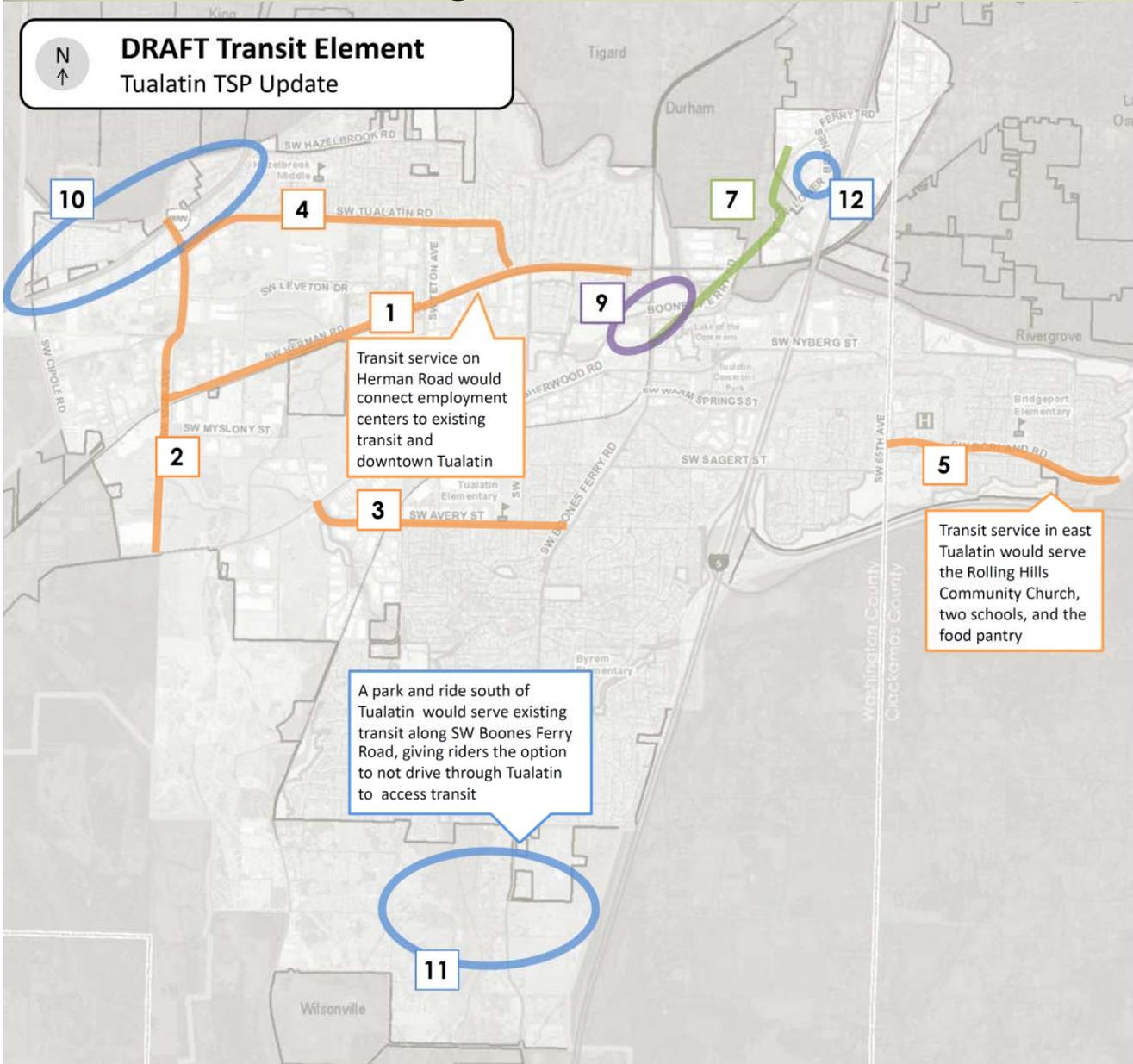
A Reminder of our Goals and Objectives

No.	Goal	Representative Criteria
1.	Access and Mobility	Provide efficient and quick travel between point A and B, Provide connectivity within the City between popular destinations and residential areas
2.	Safety	Address known safety locations, address geometric deficiencies
3.	Vibrant Community	Support a livable community with family-friendly neighborhoods, maintain a small town feel
4.	Equity	Promote a fair distribution of benefits and burdens, consider access to transit for all users
5.	Economy	Support a vibrant City Center and community, Consider positive and negative effects of alternatives on adjacent residential and business areas
6.	Health/Environment	Provide interconnected networks for bicyclists and pedestrians, protect park land and create an environmentally sustainable community
7.	Ability to be Implemented	Promote fiscal responsibility, strive for broad community and political support

Transit Modal Plan



Transit Projects



Expansions of Fixed-Route Bus Transit Service

- 1 Provide bus transit service on Herman Rd
- 2 Provide bus transit service on 124th St
- 3 Provide bus transit service on Avery St
- 4 Provide bus transit service on Tualatin Rd between downtown Tualatin and 99W
- 5 Extend bus service further east in Tualatin
- 6 General – need extended service for all transit (not shown on map)

Expansions of the Shuttle Service

- 7 Provide a shuttle or trolley service between Bridgeport Village and Commons area, especially for weekend service
- 8 General - Create an on-call shuttle for industrial & manufacturing workers during the day – consider charging fares (not shown on map)

WES

- 9 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Expansions of the Park-and-ride System

- 10 Look for potential park-and-ride locations in west Tualatin
- 11 Look for potential park-and-ride locations south of Bridgeport Village (Wilsonville area)
- 12 Add parking capacity at Tualatin Park-and-Ride (near Bridgeport Village)

Shuttle Circulator Route



Tualatin Shuttle

The Tualatin shuttle runs weekdays in the morning and afternoon rush hours, connecting people coming from regional transit and residential areas to jobs in Tualatin's employment centers. Its operations are managed by the Tualatin Chamber of Commerce. At least one shuttle bus provides service from downtown Portland.

Proposed improvements to the shuttle service include:

- ✓ Apply for funding to support a second shuttle in the afternoon, and to expand service hours
- ✓ Implement a partially fixed route for Van 1 that works in a counter-clockwise loop and serves the Tualatin Park and Ride and the downtown WES station every 30 minutes
- ✓ Print a route map and schedule, and display on board and at employment areas, station locations, and Chamber of Commerce
- ✓ Advertise service, on WES trains and bus routes serving Tualatin

Legend

- Partial fixed route for Van 1
- - - Potential future route as demand grows
- ★ Employment centers served by shuttle (existing, potential)
- ▲ Residential centers served by shuttle
- 1** Directional for partial fixed routes

Note: Van 2 would retain a flexible, on-call route connecting residential areas with employment

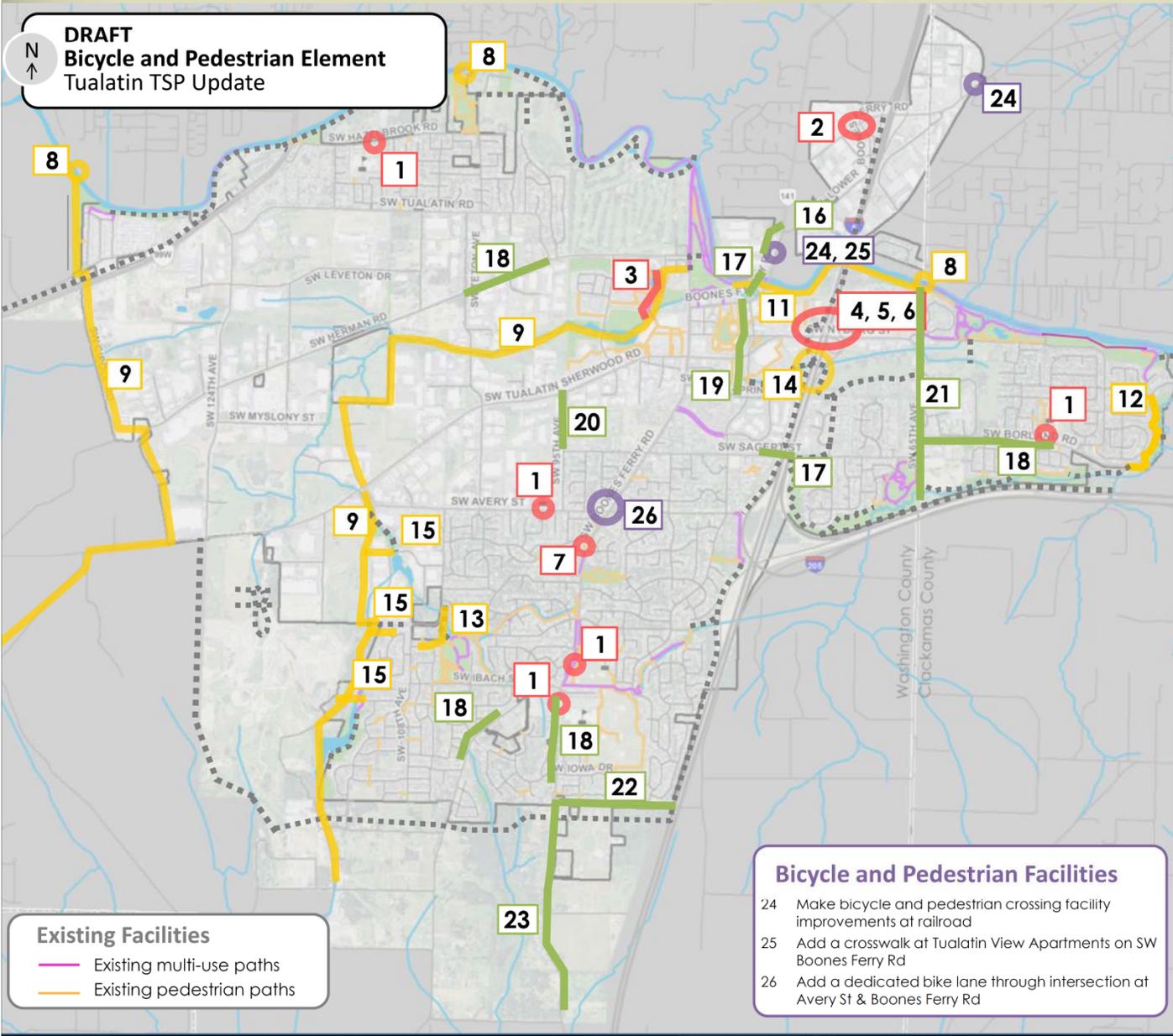
DRAFT

Bicycle, Pedestrian, and Trail Modal Plan



Bicycle, Pedestrian, and Trail Map

DRAFT
Bicycle and Pedestrian Element
 Tualatin TSP Update



Existing Facilities

- Existing multi-use paths
- Existing pedestrian paths

Bicycle and Pedestrian Facilities

- 24 Make bicycle and pedestrian crossing facility improvements at railroad
- 25 Add a crosswalk at Tualatin View Apartments on SW Boones Ferry Rd
- 26 Add a dedicated bike lane through intersection at Avery St & Boones Ferry Rd

Safety Improvements

- 1 Add wayfinding signs for Safe Routes to School at all public schools
- 2 Add colored bike lanes on Bridgeport Road near Bridgeport Village
- 3 Upgrade bridge surface along the path behind the Haggen shopping center
- 4 Add a colored bike lane through the ramps at Nyberg Interchange
- 5 Add striping for the bicycle lane across the I-5 southbound off-ramp
- 6 Redesign bike lane on the east side of the Nyberg Interchange
- 7 Improve visibility and illumination at crosswalk at Siletz Dr & Boones Ferry Rd

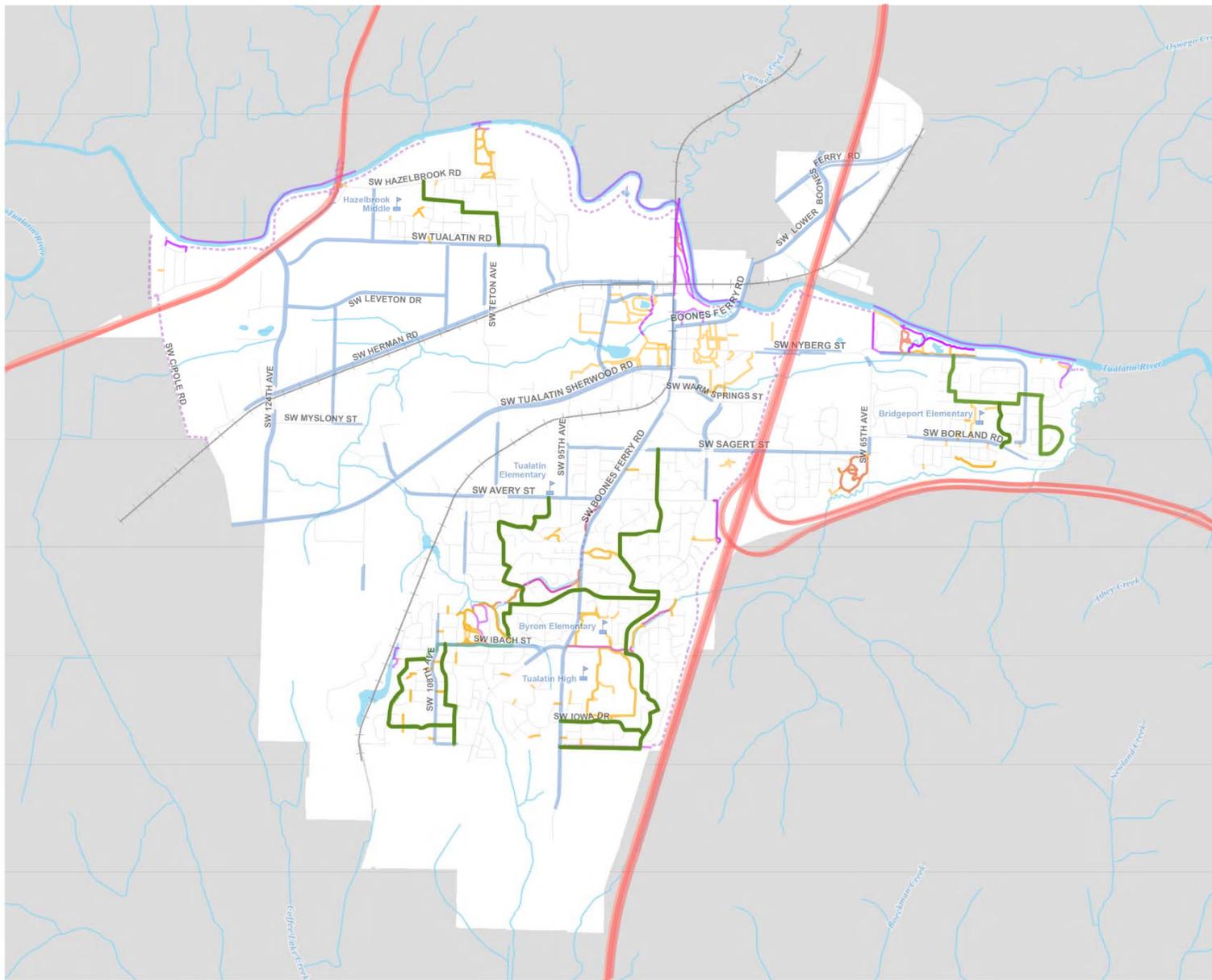
Multi-Use Trails

- 8 Build bridges for pedestrian and bicycle access over the Tualatin River near Cipole Road, 108th Avenue, and 65th Avenue
- 9 Build the Tonquin Trail
- 10 Build multi-use paths from the previously adopted Tualatin Pedestrian, Bikeway, and Greenway Plans (indicated by)
- 11 Build trail along Tualatin River from the Community Park, extend to Tualatin River Greenway
- 12 Fill gaps in the multi-use path as part of the Tualatin River Greenway
- 13 Add a trail on the east side of SW 105th Avenue, SWS Blake Street, and SW 108th Avenue through Ibach Park to accommodate bicyclists and pedestrians
- 14 Add I-5 multi-use undercrossing – connect to existing multi-use paths
- 15 Connect Tonquin trail with neighborhoods

Bicycle and Pedestrian Urban Upgrades

- 16 Fill sidewalk gaps and add colored bicycle lanes at SW Boones Ferry and SW Lower Boones Ferry Roads
- 17 Add a separate bicycle and pedestrian bridge adjacent to SW Boones Ferry Road, add sidewalks to the SW Sager Street bridge
- 18 Fill sidewalk gaps on SW Boones Ferry Road, SW Borland Road, SW Grahams Ferry Road, and SW Herman Road
- 19 Add bicycle lanes on Martinazzi Avenue
- 20 Add bicycle lanes on SW 95th Avenue
- 21 Add a multi-use path along SW 65th Avenue between I-205 and the Tualatin River
- 22 Add a multi-use path (or sidewalks and bicycle lanes) on SW Norwood Road
- 23 Add bicycle lanes on Boones Ferry Rd to Day Rd

Bicycle Boulevard System



LEGEND

- Study Area
- City Boundaries
- County Boundaries
- Railroad
- Regional Road Network
- Bicycle Boulevard Route
- Local Streets
- Bike Lanes
- Existing multi-use path
- Planned multi-use path
- Local pedestrian path

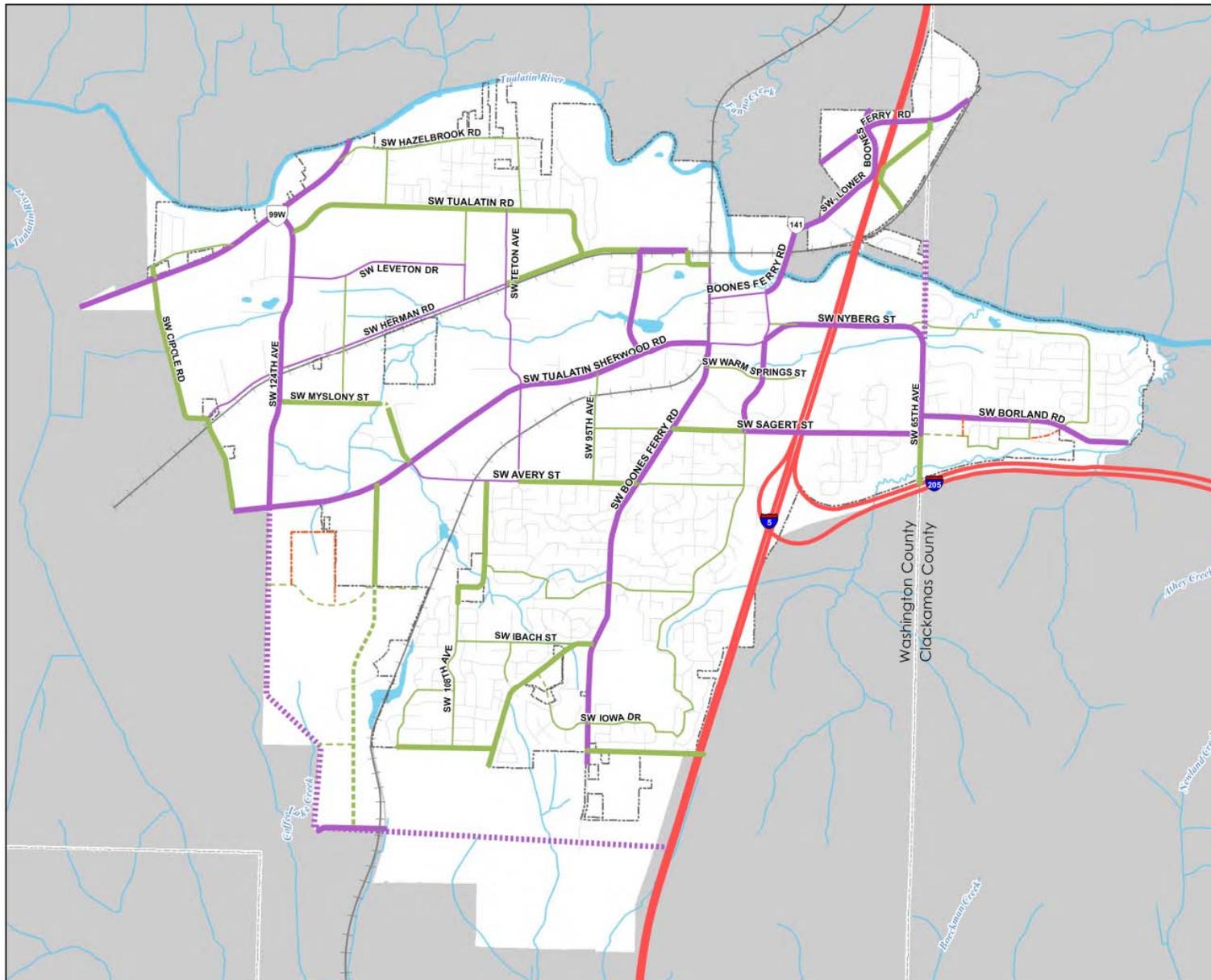
0 0.5 1
Miles

DRAFT FIGURE
Bicycle Boulevard Routes
 Bicycle and Pedestrian Element
 City of Tualatin Transportation System Plan

Roadway Modal Plan



Functional Classification Network



LEGEND

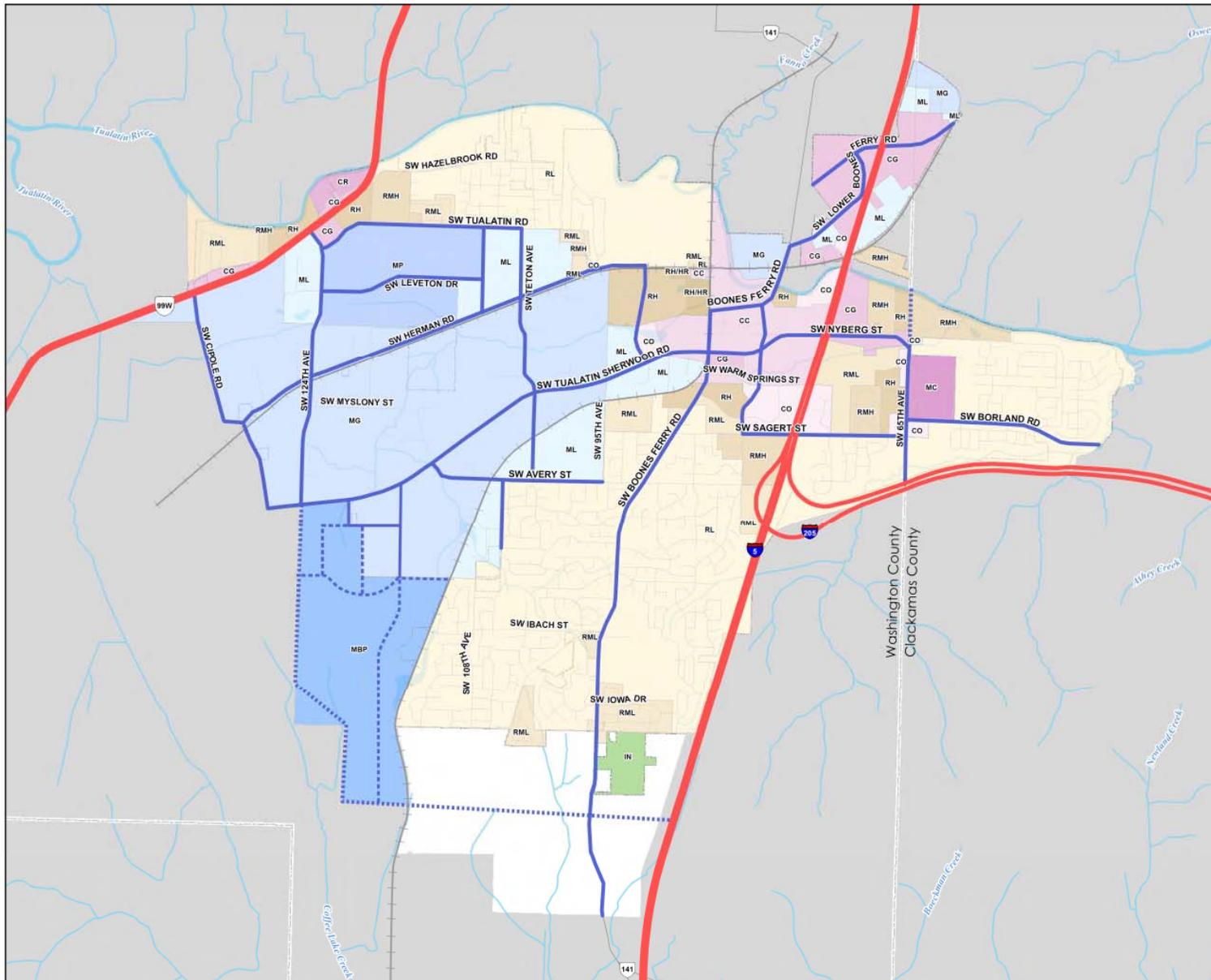
- Study Area
- Principal Arterial
- Major Arterial
- Future Major Arterial
- Minor Arterial
- Major Collector
- Future Major Collector
- Minor Collector
- Future Minor Collector
- Future Local Road
- City Boundaries
- County Boundaries
- Railroad

Note:
Future roadway alignments are approximate and subject to additional engineering and design.

0 0.5 1
Miles

DRAFT FIGURE 1
Recommended Functional Classification
 Functional Classification Element
 City of Tualatin Transportation System Plan

Freight Element



LEGEND

Study Area

0 0.5 1 Miles

Regional Transportation System

- Red line: Regional Transportation System

Freight Routes

- Blue line: Existing Roadways
- Dashed blue line: Future Roadways

Boundaries

- Dashed line: City Boundaries
- Dotted line: County Boundaries

Railroad

- Black line with cross-ticks: Railroad

Institutional

- Green box: IN - Institutional

Commercial

- Pink box: CO - Office
- Light purple box: CC - Central
- Light blue box: CG - General
- Dark purple box: CR - Recreational
- Dark blue box: MC - Medical

Manufacturing

- Lightest blue box: ML - Light
- Light blue box: MG - General
- Medium blue box: MP - Park
- Dark blue box: MBP - Business Park

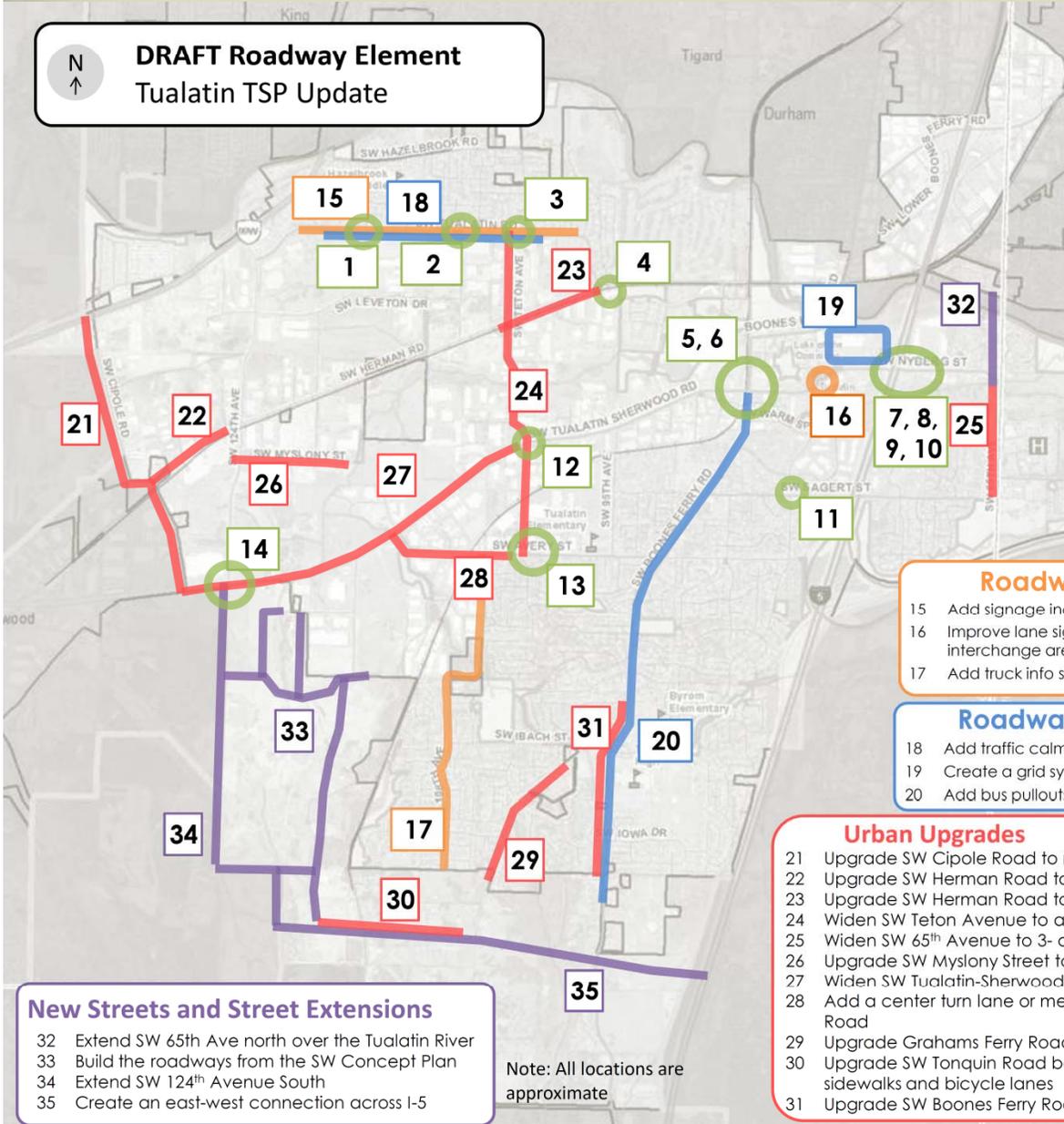
Residential

- Lightest yellow box: RL - Low Density
- Light yellow box: RML - Medium Low Density
- Yellow box: RMH - Medium High Density
- Orange box: RH - High Density
- Dark orange box: RH/HR - High Density High Rise

DRAFT FIGURE
Freight Routes
 Street Element
 City of Tualatin Transportation System Plan

Roadway Element Map

DRAFT Roadway Element
Tualatin TSP Update



- ### Intersection Improvements
- 1 Add signal at SW Tualatin Road and SW 115th Avenue
 - 2 Remove trees at intersection of SW Tualatin Road and SW 108th Avenue to improve sight distance
 - 3 Add signal at SW Tualatin Road and SW Teton Avenue
 - 4 Remove the free right turn at SW Tualatin Road at the intersection of SW Herman Road. Consider a roundabout.
 - 5 Add an eastbound right turn lane on SW Tualatin-Sherwood Road at SW Boones Ferry Road
 - 6 Extend the southbound left turn pocket on SW Boones Ferry Road at SW Tualatin-Sherwood Road
 - 7 Move guardrail on southbound off ramp to improve sight distance
 - 8 Northbound I-5 on-ramp: reduce pedestrian island, add an additional lane
 - 9 Add signage at the northbound off ramp to discourage traffic getting off and then back onto I-5
 - 10 Redesign SW Nyberg Street and Fred Meyer intersection and improve pedestrian crossing. Add striping and a pedestrian island.
 - 11 Add a signal or roundabout at Sagert St and Martinazzi Ave
 - 12 Add a dedicated right turn lane on southbound SW Teton Avenue and SW Tualatin-Sherwood Road
 - 13 Improve intersection at SW Avery Street and SW Teton Avenue – add southbound right turn pocket
 - 14 Add a right turn lane from westbound SW Tualatin-Sherwood Road to northbound SW 124th Avenue

- ### Roadway Signs
- 15 Add signage indicating that Tualatin Road is for local traffic
 - 16 Improve lane signage west of the Nyberg interchange to indicate lanes passing through the interchange area
 - 17 Add truck info signs along 108th/105th Avenues to indicate that these roads are for local traffic

- ### Roadway Changes
- 18 Add traffic calming on SW Tualatin Road
 - 19 Create a grid system near Kmart upon redevelopment with a connection to SW Seneca Street
 - 20 Add bus pullouts on SW Boones Ferry Road at existing bus stops where possible

- ### Urban Upgrades
- 21 Upgrade SW Cipole Road to roadway standards (widen travel lanes, add bicycle lanes and sidewalks)
 - 22 Upgrade SW Herman Road to a 3-lane cross section between SW 124th Avenue and SW Cipole Road
 - 23 Upgrade SW Herman Road to a 2-lane urban cross section between SW Tualatin Road and SW Teton Avenue
 - 24 Widen SW Teton Avenue to a 3-lane cross section
 - 25 Widen SW 65th Avenue to 3- or 5-lanes
 - 26 Upgrade SW Myslony Street to roadway standards
 - 27 Widen SW Tualatin-Sherwood Rd to 5 lanes between SW Teton Avenue and SW Cipole Road
 - 28 Add a center turn lane or median on SW Avery Street between SW Teton Avenue and SW Tualatin-Sherwood Road
 - 29 Upgrade Grahams Ferry Road to roadway standards (widen travel lanes, add bicycle lanes and sidewalks)
 - 30 Upgrade SW Tonquin Road between SW Waldo Way and SW Grahams Ferry Road (widen travel lanes, add sidewalks and bicycle lanes)
 - 31 Upgrade SW Boones Ferry Road to a 3 lane cross section throughout.

- ### New Streets and Street Extensions
- 32 Extend SW 65th Ave north over the Tualatin River
 - 33 Build the roadways from the SW Concept Plan
 - 34 Extend SW 124th Avenue South
 - 35 Create an east-west connection across I-5

Note: All locations are approximate

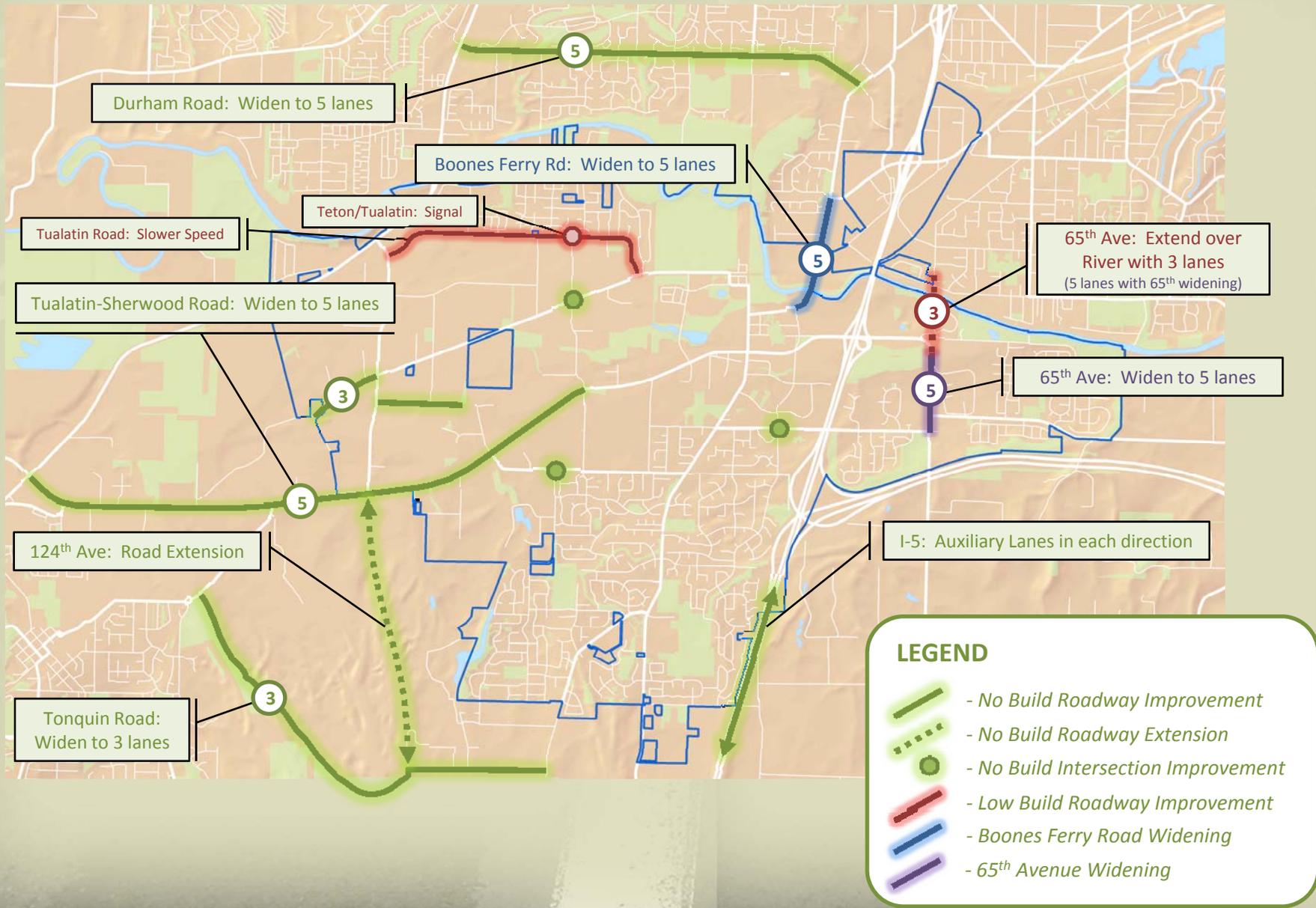
Scenarios



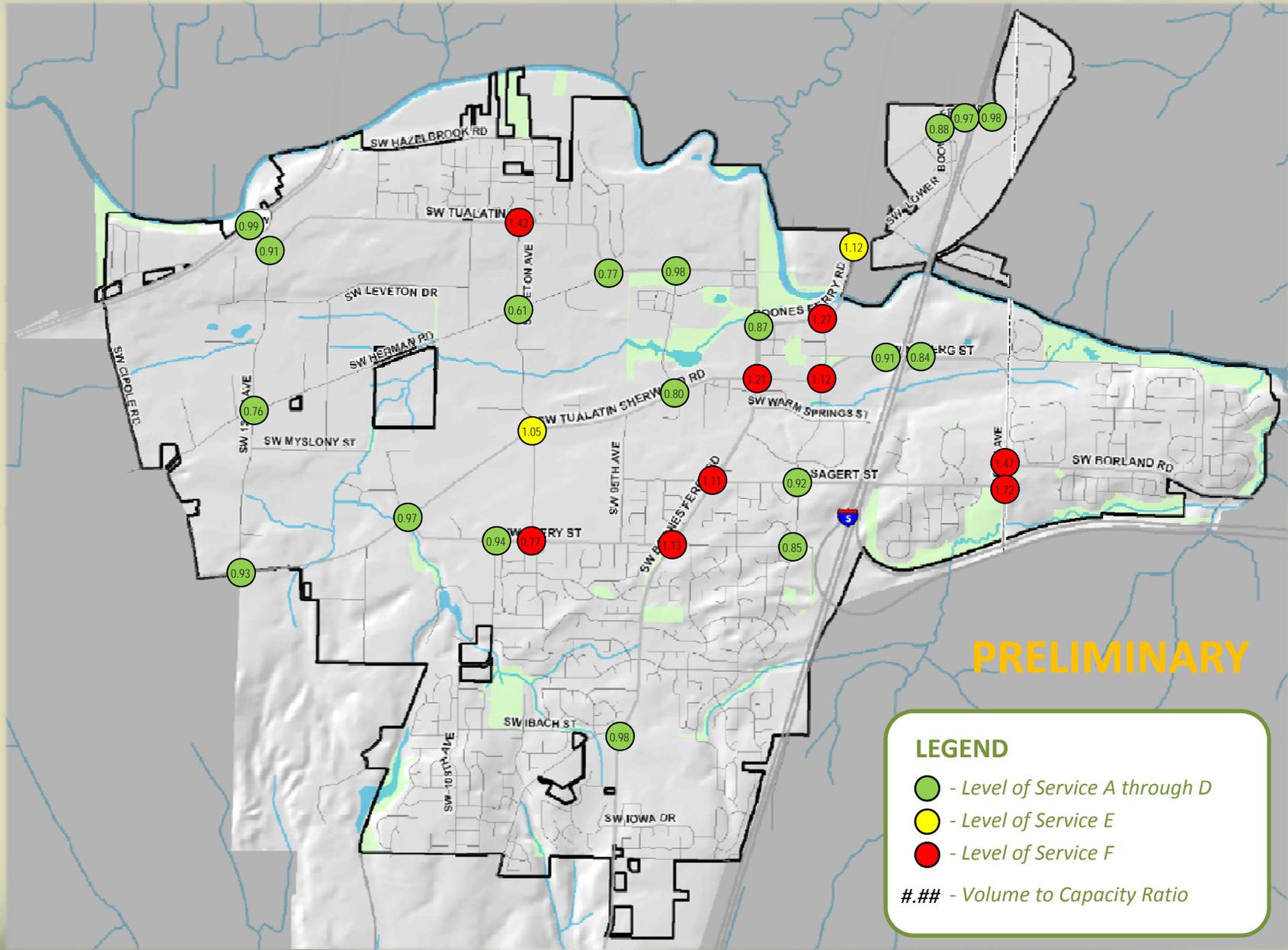
Scenarios Rely on TTF Guidance

1. Includes compilation of guidance from 7 refinement areas
2. Looked at various options for 65th Avenue
 - a. No extension
 - b. 2-lane bridge extension
 - c. 5-lane widening of 65th with 4-lane bridge extension
3. Looked at widening Boones Ferry Road north of Martinazzi

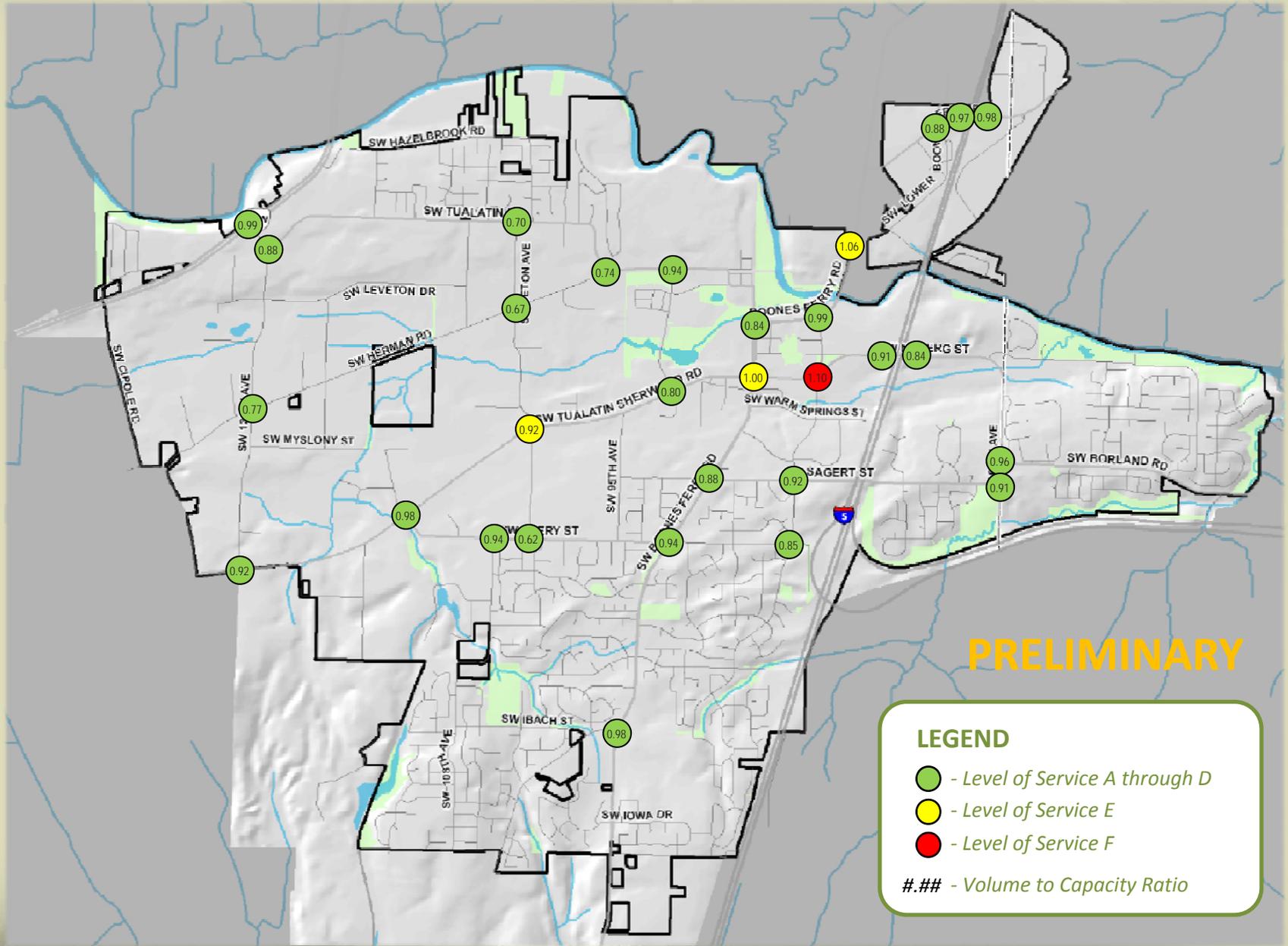
Assumed Future 2035 Scenarios and Roadway Projects



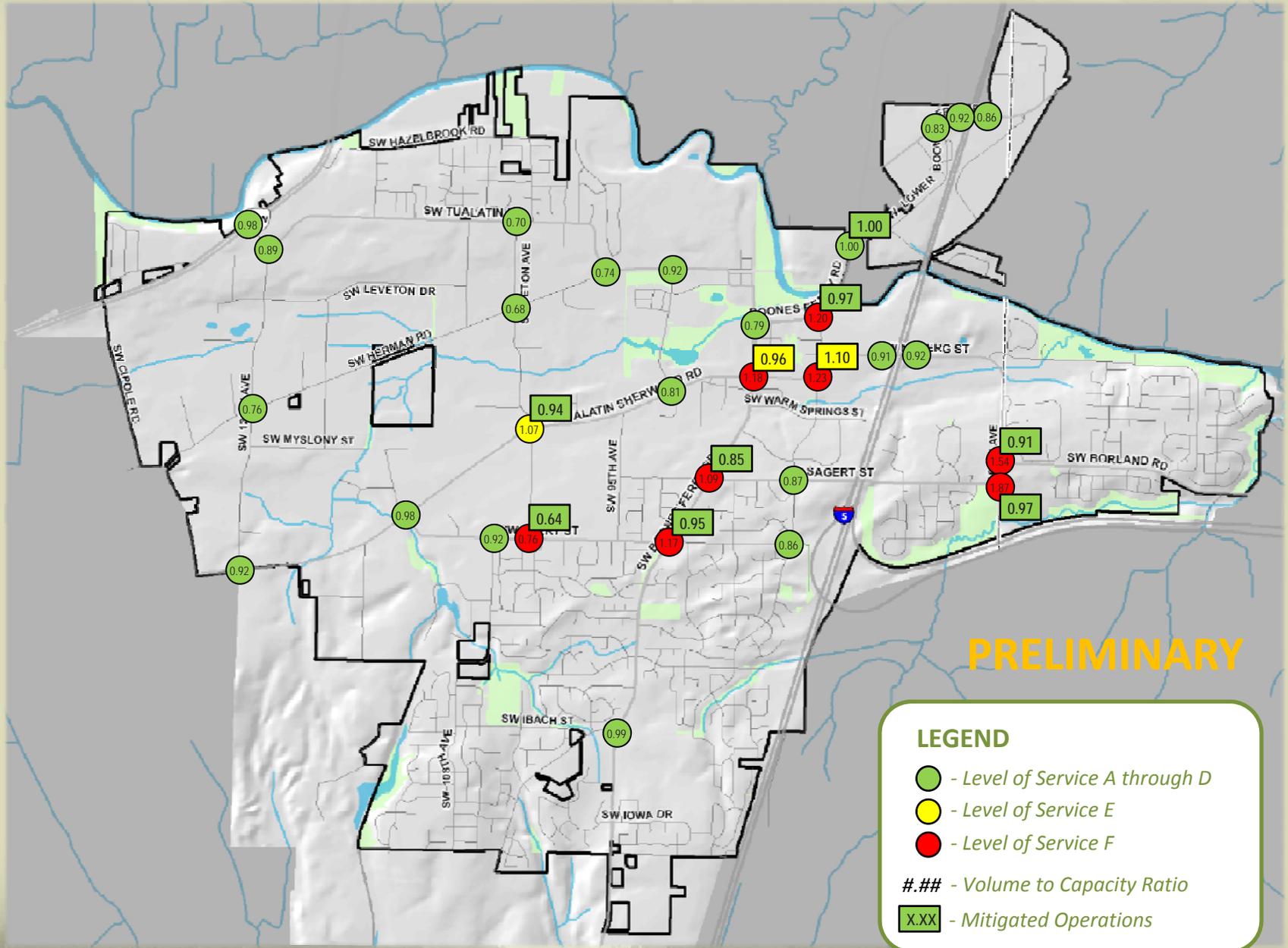
No Build Option



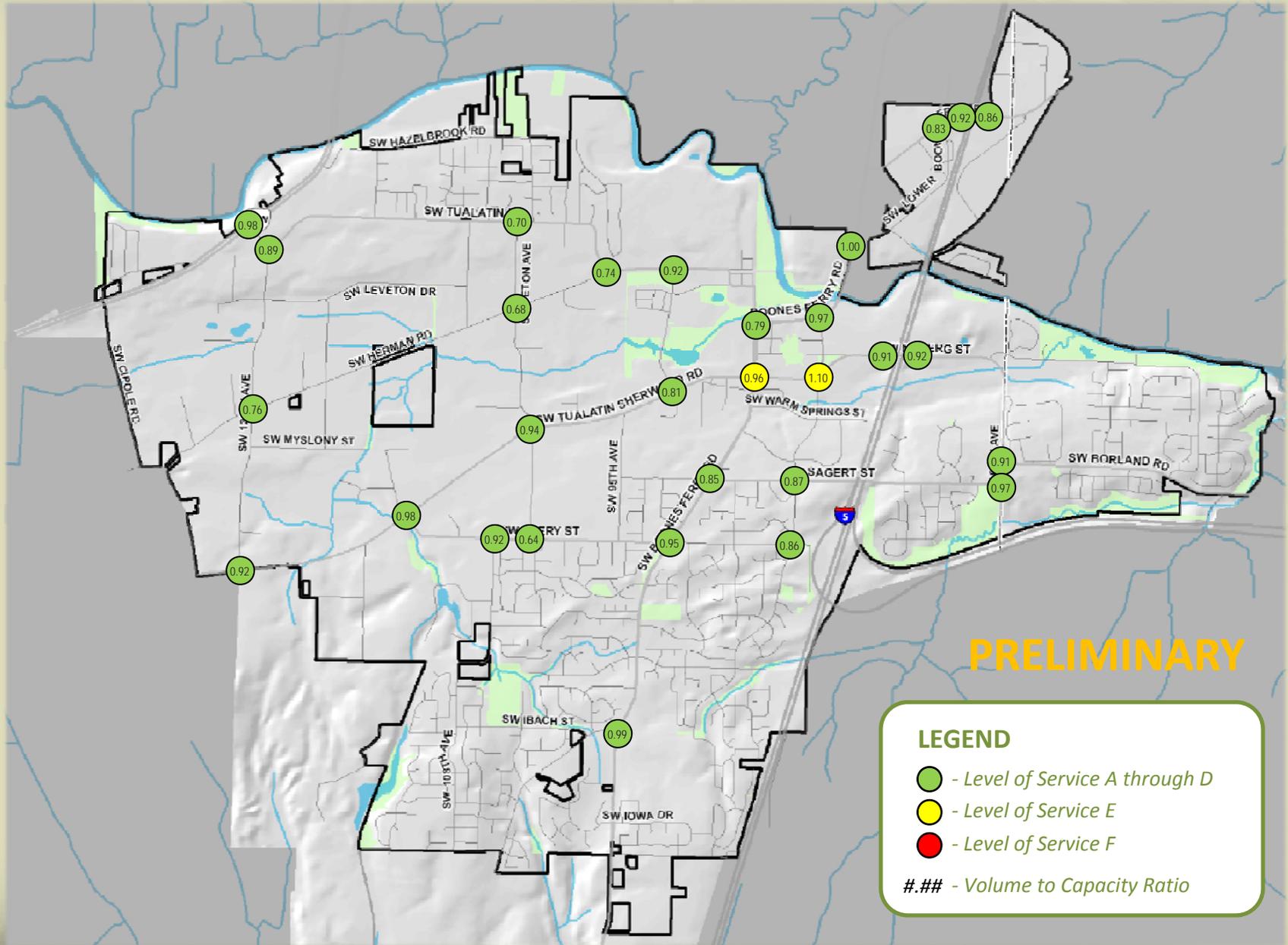
LOW Build Option - Without 65th Ave Extension



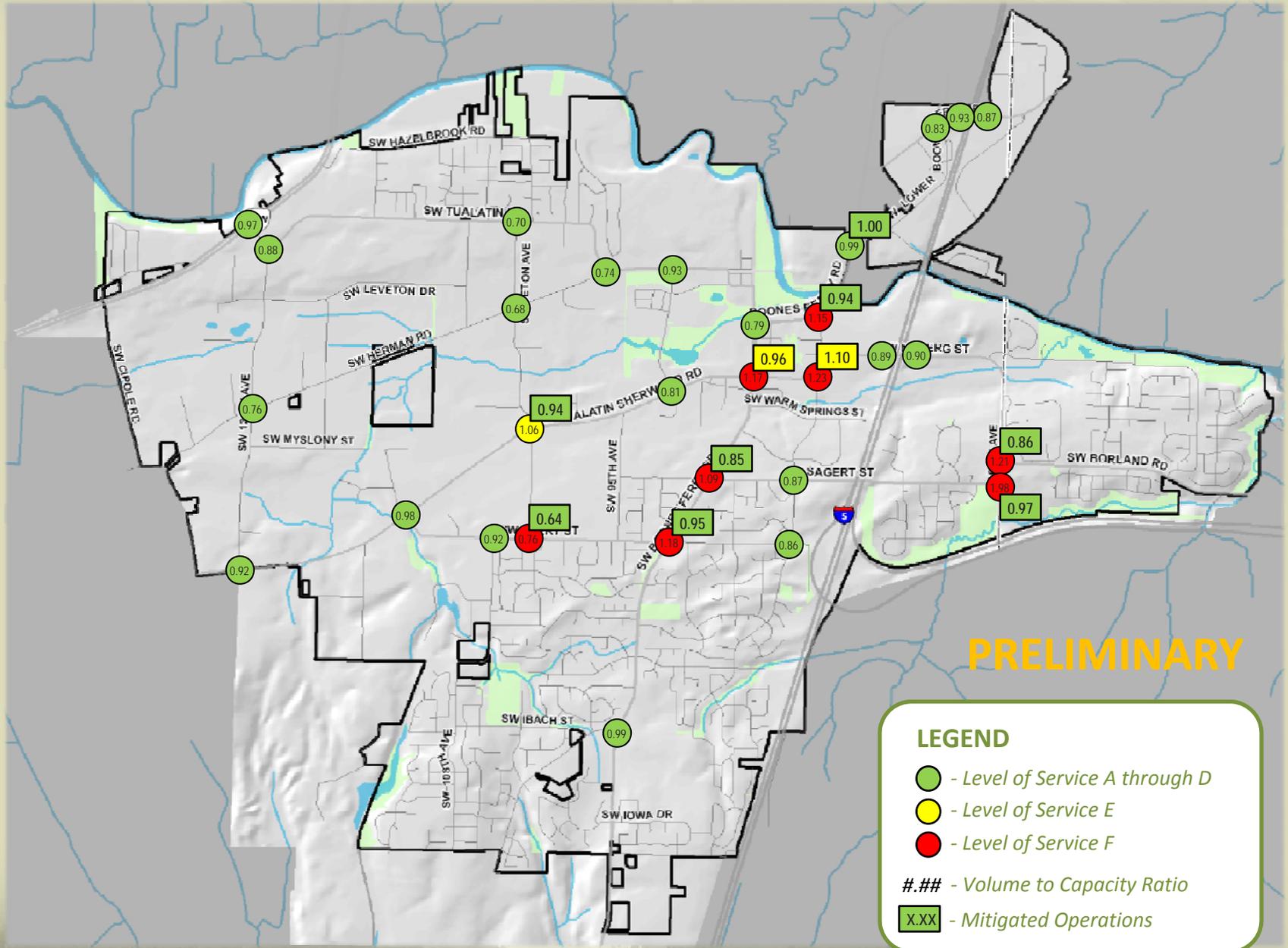
LOW Build Option - WITH 65th Ave Extension



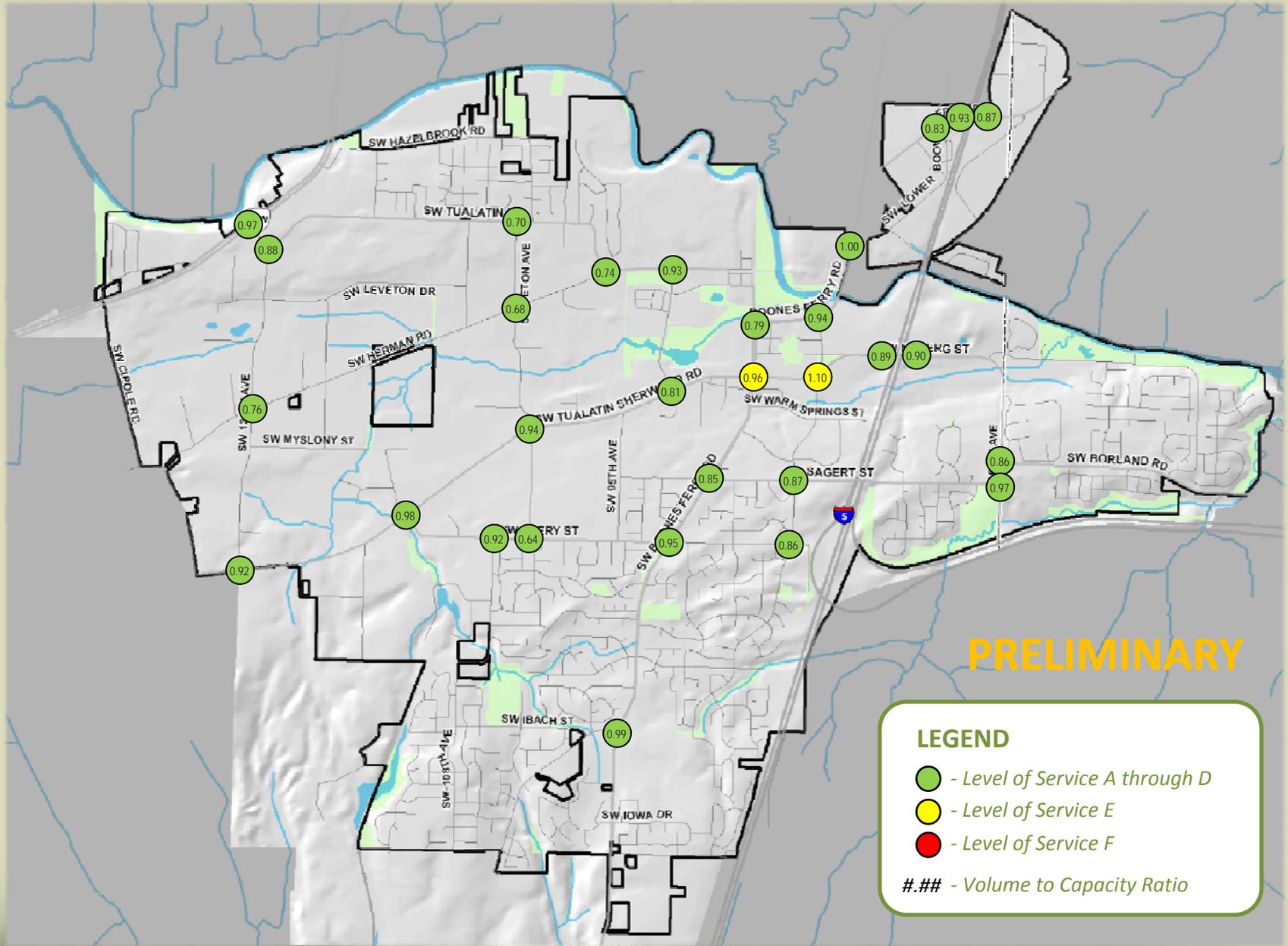
LOW Build Option - WITH 65th Ave Extension



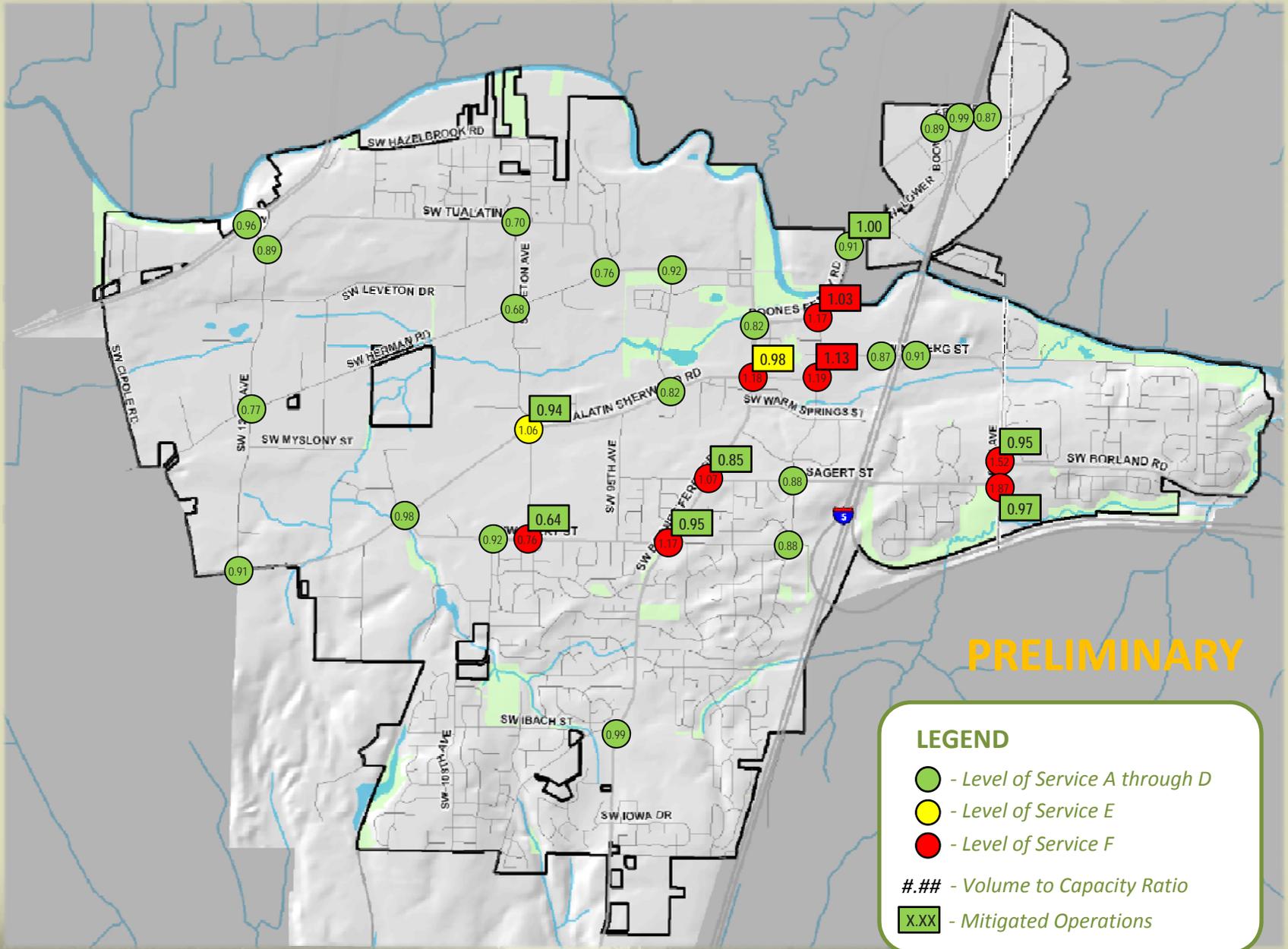
LOW Build Option - WITH 65th Ave Extension and 5 Lane



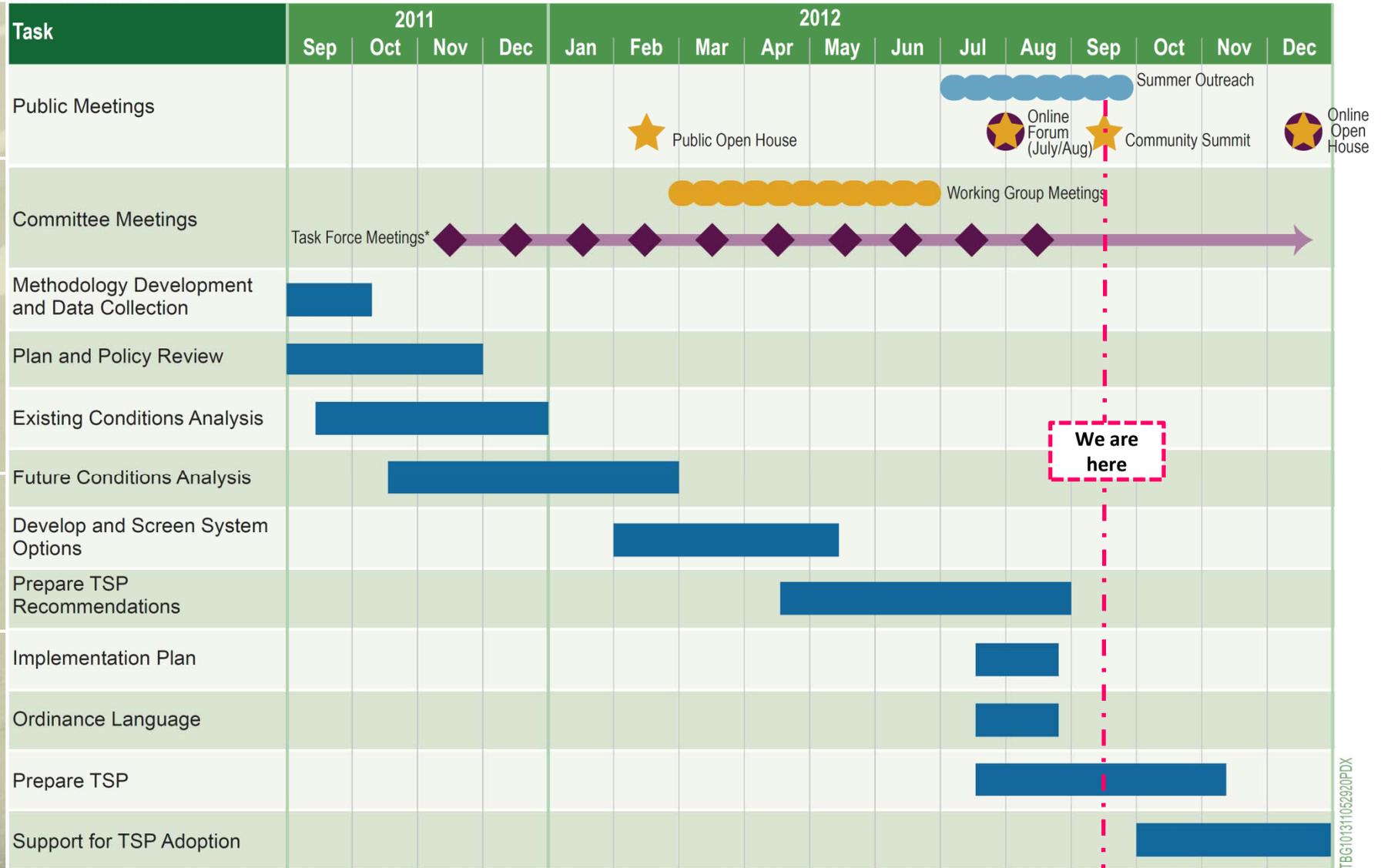
LOW Build Option - WITH 65th Ave Extension and 5 Lane



LOW Build Option - WITH Boones Ferry Road North Widening



Transportation System Plan Timeline



TBG101311052920PDX

What Happens Next?

- Discuss and finalize TSP recommendations
- Refine the implementation
 - Code language
 - Prioritization
 - Costs and funding
- Develop the draft TSP
- Begin discussing TSP document with Planning Commission, TPARK, and City Council

Thank you!





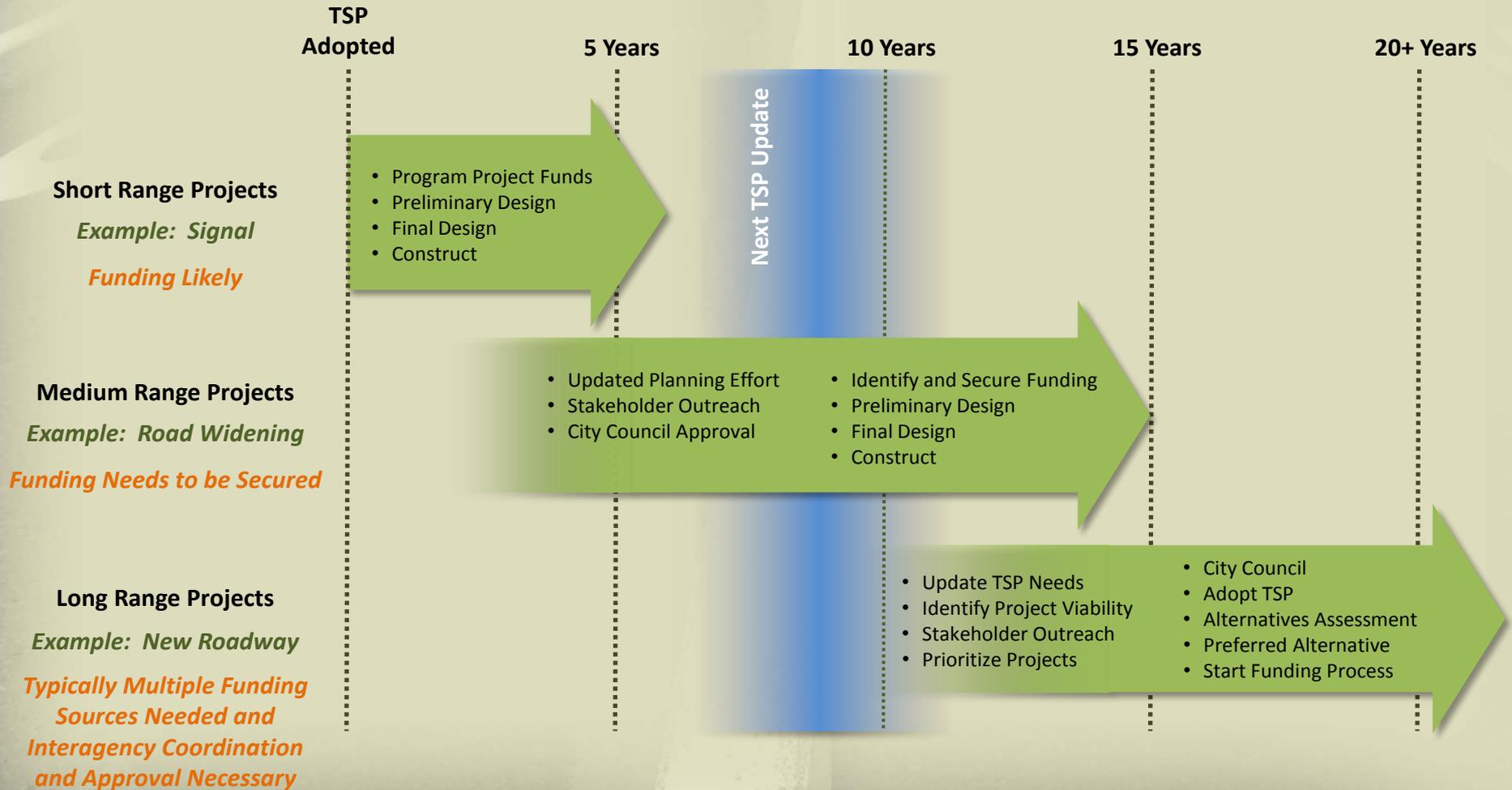
City of Tualatin
**Overview of
Traffic Analysis
Tualatin TSP**

Presentation to
Tualatin Task Force
November 1, 2012

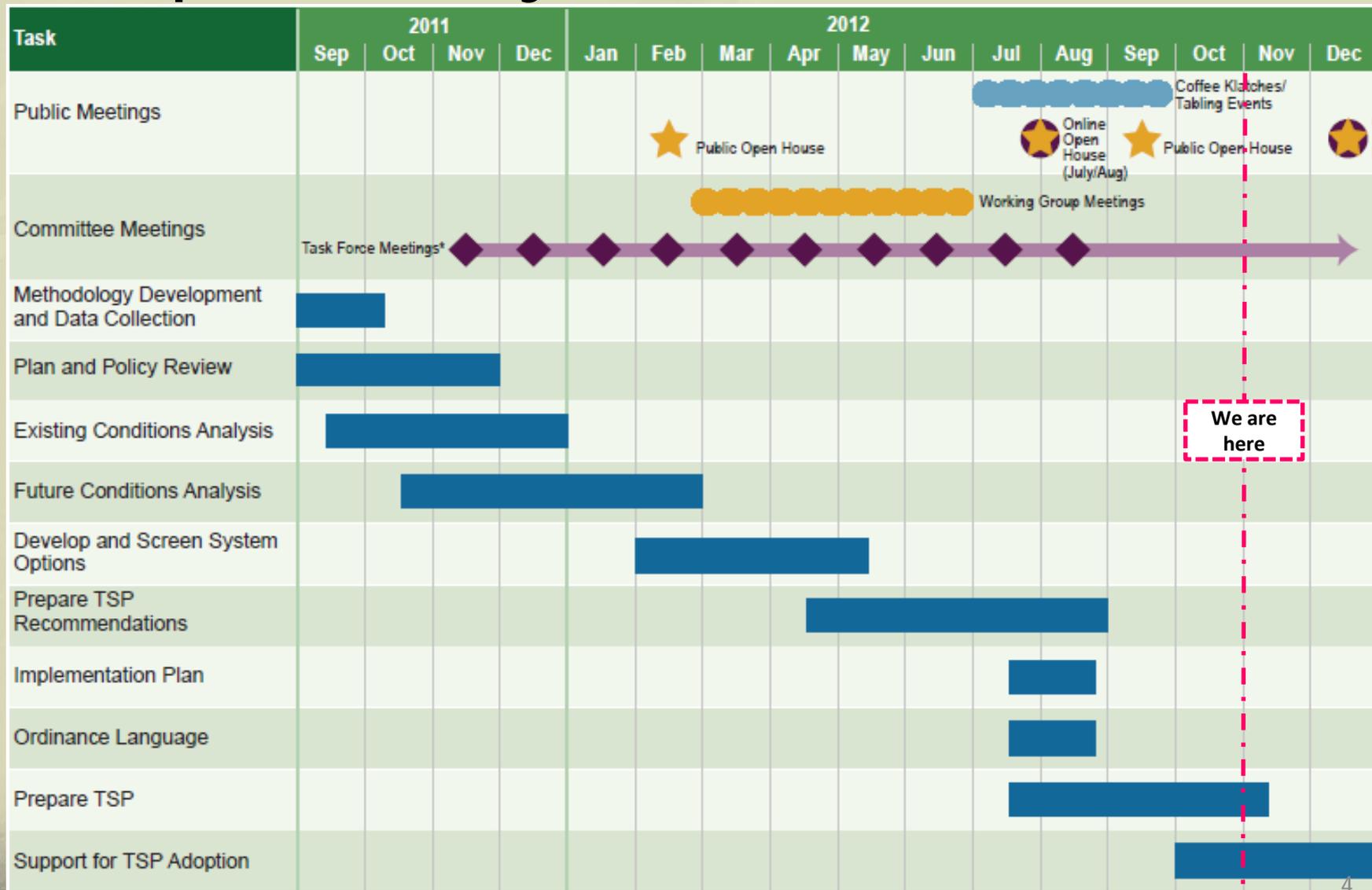
Where We Are In the TSP Process



What happens to projects after adoption?



Transportation System Plan Timeline



Progress Since our September 20th Meeting...

1. Decided on “Low Build” Scenario

2. Additional travel time results requested for scenarios:

- No-build
- Low build
- Low build + 65th Ave (2 lane)
- Low build + Boones Ferry Road widening
- Low build + 65th Ave (2 lane) + BFR widening

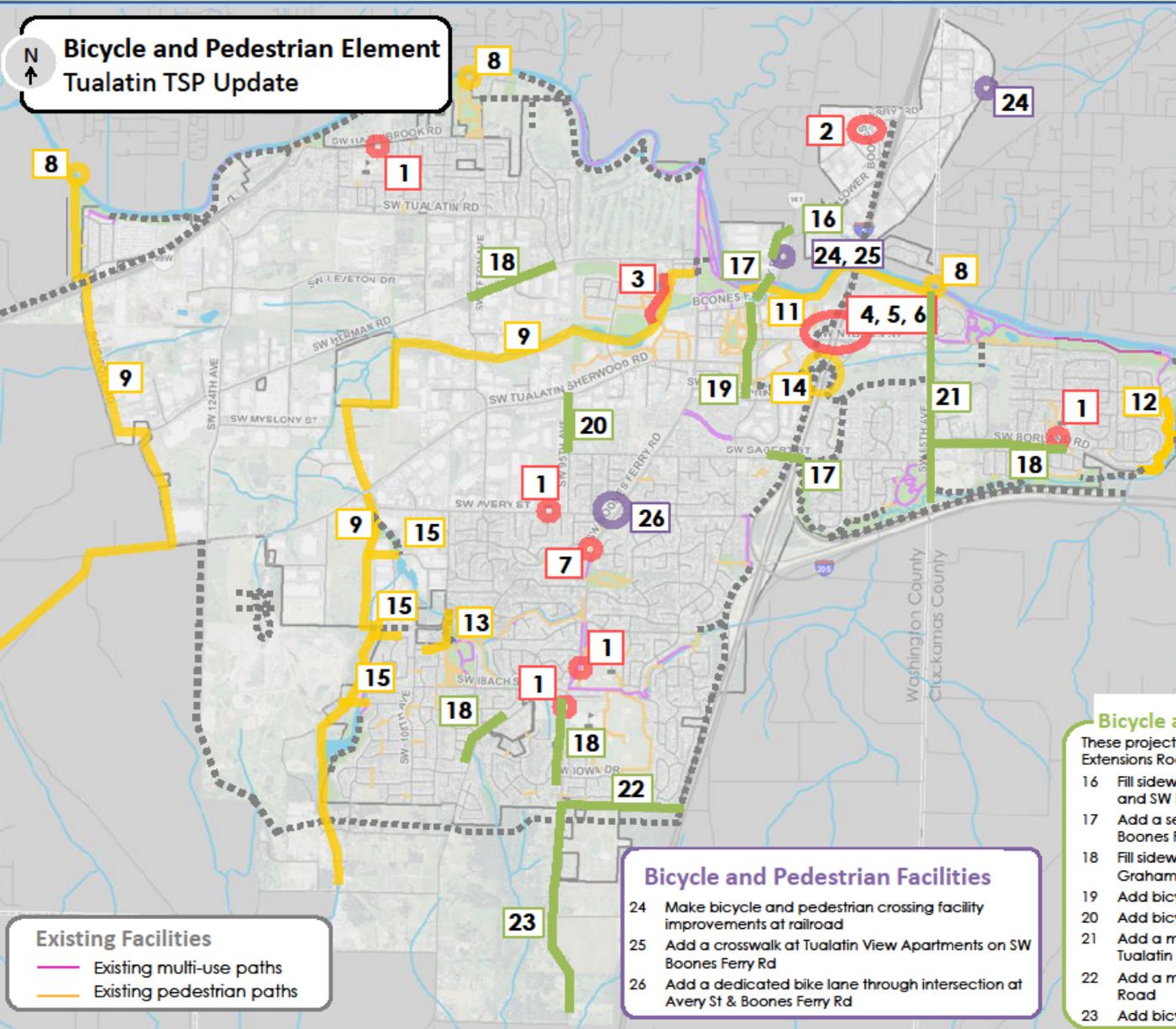
3. Tabled decisions on:

- 65th Avenue extension
- Boones Ferry Road widening

Bicycle/Pedestrian Element



Bicycle and Pedestrian Element Tualatin TSP Update



Existing Facilities

- Existing multi-use paths
- Existing pedestrian paths

Bicycle and Pedestrian Facilities

- 24 Make bicycle and pedestrian crossing facility improvements at railroad
- 25 Add a crosswalk at Tualatin View Apartments on SW Boones Ferry Rd
- 26 Add a dedicated bike lane through intersection at Avery St & Boones Ferry Rd

Safety Improvements

- 1 Add wayfinding signs for Safe Routes to School at all public schools
- 2 Add colored bike lanes on Bridgeport Road near Bridgeport Village
- 3 Upgrade bridge surface along the path behind the Haggen shopping center
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- 5 Add striping for the bicycle lane across the I-5 southbound off-ramp
- 6 Redesign bike lane on the east side of the Nyberg Interchange
- 7 Improve visibility and illumination at crosswalk at Siletz Dr & Boones Ferry Rd

Multi-Use Trails

- 8 Build bridges for pedestrian and bicycle access over the Tualatin River near Cipole Road, 108th Avenue, and 65th Avenue
- 9 Build the Tonquin Trail
- 10 Build multi-use paths from the previously adopted Tualatin Pedestrian, Bikeway, and Greenway Plans (indicated by dashed lines)
- 11 Build trail along Tualatin River from the Community Park, extend to Tualatin River Greenway
- 12 Fill gaps in the multi-use path as part of the Tualatin River Greenway
- 13 Add a trail on the east side of SW 105th Avenue, SWS Blake Street, and SW 108th Avenue through Ibach Park to accommodate bicyclists and pedestrians
- 14 Add I-5 multi-use undercrossing – connect to existing multi-use paths
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Bicycle and Pedestrian Urban Upgrades

These projects are also included on the Urban Upgrades and Street Extensions Roadway Figure

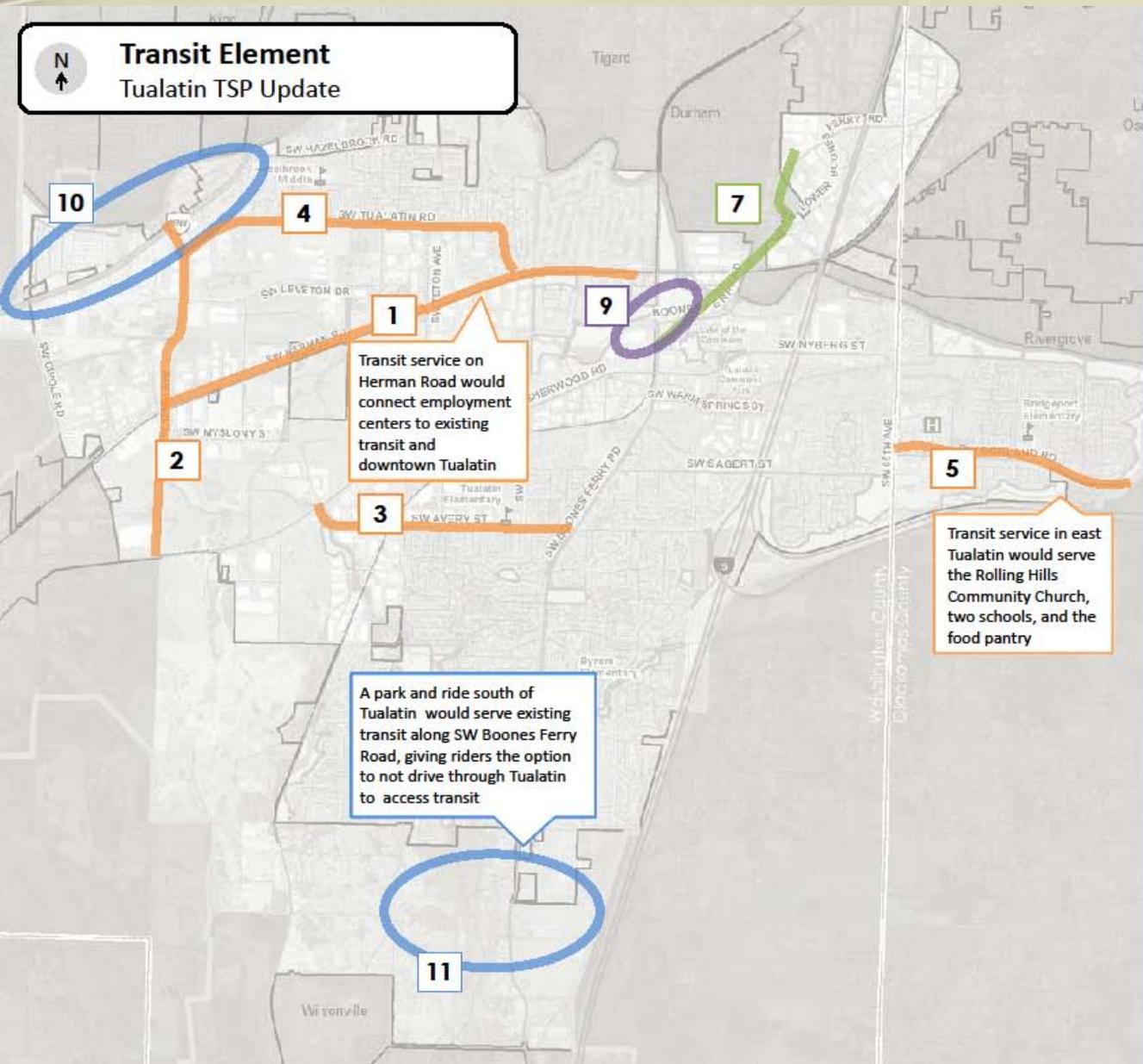
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- 19 Add bicycle lanes on Martinazzi Avenue
- 20 Add bicycle lanes on SW 95th Avenue
- 21 Add a multi-use path along SW 65th Avenue between I-205 and the Tualatin River
- 22 Add a multi-use path (or sidewalks and bicycle lanes) on SW Norwood Road
- 23 Add bicycle lanes on Boones Ferry Rd to Day Rd

Transit Element





Transit Element Tualatin TSP Update



Expansions of Fixed-Route Bus Transit Service

- 1 Provide bus transit service on Herman Rd
- 2 Provide bus transit service on 124th St
- 3 Provide bus transit service on Avery St
- 4 Provide bus transit service on Tualatin Rd between downtown Tualatin and 99W
- 5 Extend bus service further east in Tualatin
- 6 General - need extended service for all transit (not shown on map)

Expansions of the Shuttle Service

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WES

- 9 Make the WES station a central focus of downtown and the main transit center. Improve pedestrian connectivity, transit-oriented development opportunities, and local transit connections

Expansions of the Park-and-ride System

- 10 Look for potential park-and-ride locations in west Tualatin
- 11 Look for potential park-and-ride locations south of Bridgeport Village (Wilsonville area)

Tualatin Shuttle



Legend

- Partial fixed route for Van 1
- Potential future route as demand grows
- Employment centers served by shuttle (existing, potential)
- Directional for partial fixed routes
- Residential centers served by shuttle

Note: Van 2 would retain a flexible, on-call route connecting residential areas with employment

DRAFT

The Tualatin shuttle runs weekdays in the morning and afternoon rush hours, connecting people coming from regional transit and residential areas to jobs in Tualatin's employment centers. Its operations are managed by the Tualatin Chamber of Commerce. At least one shuttle bus provides service from downtown Portland.

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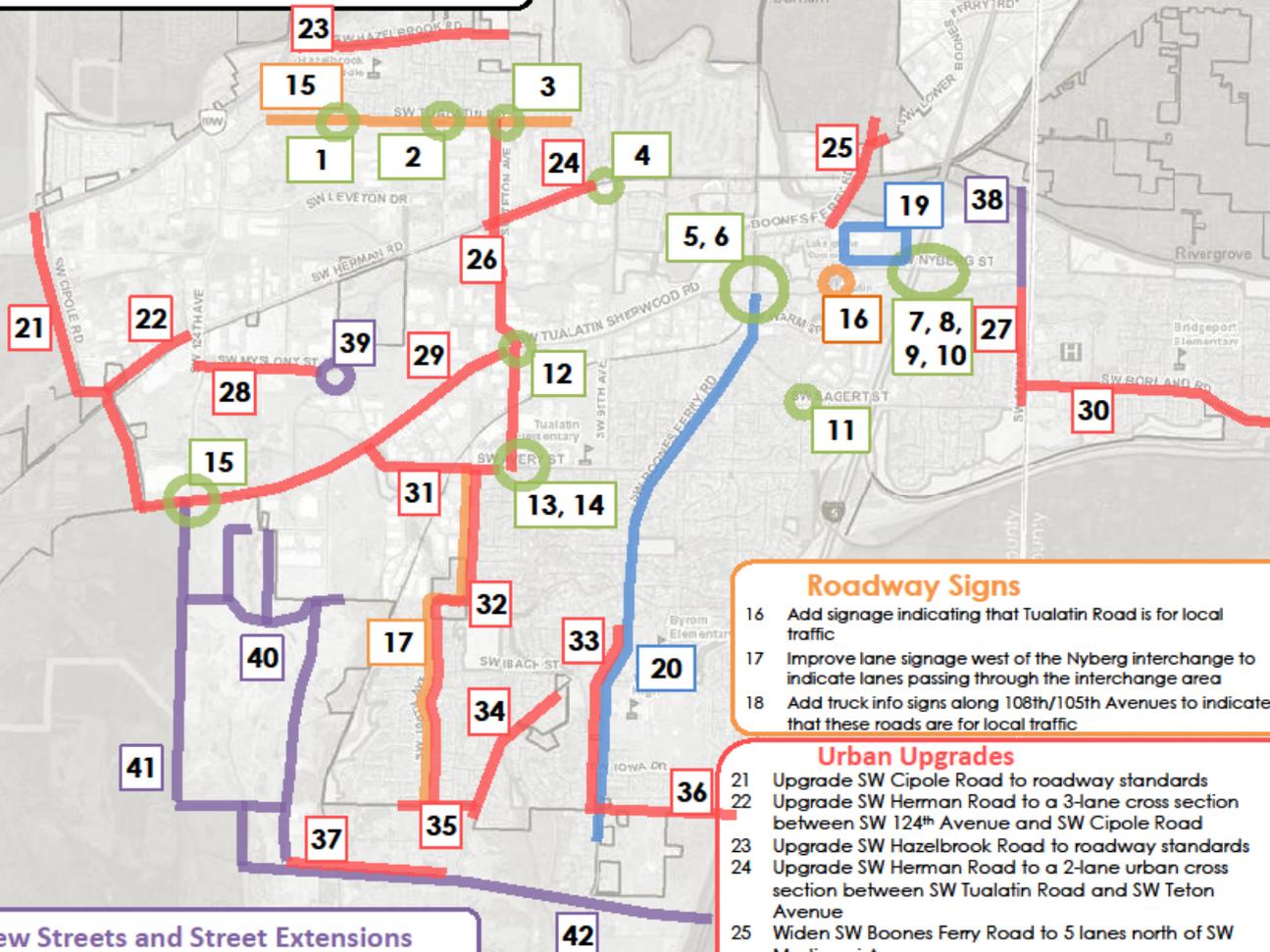
- ✓ Apply for funding to support a second shuttle in the afternoon, and to expand service hours
- ✓ Implement a partially fixed route for Van 1 that works in a counter-clockwise loop and serves the Tualatin Park and Ride and the downtown WES station every 30 minutes
- ✓ Print a route map and schedule, and display on board and at employment areas, station locations, and Chamber of Commerce
- ✓ Advertise service, on WES trains and bus routes serving Tualatin

Major Corridors and Intersections





Roadway Element Tualatin TSP Update



- ### New Streets and Street Extensions
- 38 Extend SW 65th Ave north over the Tualatin River
 - 39 Connect SW Myslony Street to SW 115th Avenue
 - 40 Build the roadways from the SW Concept Plan
 - 41 Extend SW 124th Avenue South
 - 42 Create an east-west connection across I-5

Note: All locations are approximate

- ### Roadway Signs
- 16 Add signage indicating that Tualatin Road is for local traffic
 - 17 Improve lane signage west of the Nyberg interchange to indicate lanes passing through the interchange area
 - 18 Add truck info signs along 108th/105th Avenues to indicate that these roads are for local traffic

- ### Urban Upgrades
- 21 Upgrade SW Cipole Road to roadway standards
 - 22 Upgrade SW Herman Road to a 3-lane cross section between SW 124th Avenue and SW Cipole Road
 - 23 Upgrade SW Hazelbrook Road to roadway standards
 - 24 Upgrade SW Herman Road to a 2-lane urban cross section between SW Tualatin Road and SW Teton Avenue
 - 25 Widen SW Boones Ferry Road to 5 lanes north of SW Martinazzi Avenue
 - 26 Widen SW Teton Avenue to a 3-lane cross section
 - 27 Widen SW 65th Avenue to 3- or 5-lanes
 - 28 Upgrade SW Myslony Street to roadway standards
 - 29 Widen SW Tualatin-Sherwood Rd to 5 lanes between SW Teton Avenue and SW Cipole Road

- ### Intersection Improvements
- 1 Add signal at SW Tualatin Road and SW 115th Avenue
 - 2 Remove trees at intersection of SW Tualatin Road and SW 108th Avenue to improve sight distance
 - 3 Add signal at SW Tualatin Road and SW Teton Avenue
 - 4 Remove the free right turn at SW Tualatin Road at the intersection of SW Herman Road. Consider a roundabout
 - 5 Add an eastbound right turn lane on SW Tualatin-Sherwood Road at SW Boones Ferry Road
 - 6 Extend the southbound left turn pocket on SW Boones Ferry Road at SW Tualatin-Sherwood Road
 - 7 Move guardrail on southbound off ramp to improve sight distance
 - 8 Northbound I-5 on-ramp: reduce pedestrian island, add an additional lane
 - 9 Add signage at the northbound off ramp to discourage traffic getting off and then back onto I-5
 - 10 Redesign SW Nyberg Street and Fred Meyer intersection and improve pedestrian crossing. Add striping and a pedestrian island.
 - 11 Add a signal or roundabout at Sagert St and Martinazzi Ave
 - 12 Add a dedicated right turn lane on southbound SW Teton Avenue and SW Tualatin-Sherwood Road
 - 13 Improve intersection at SW Avery Street and SW Teton Avenue – add southbound right turn pocket
 - 14 Add a signal at SW Avery and SW Teton
 - 15 Add a right turn lane from westbound SW Tualatin-Sherwood Road to northbound SW 124th Avenue

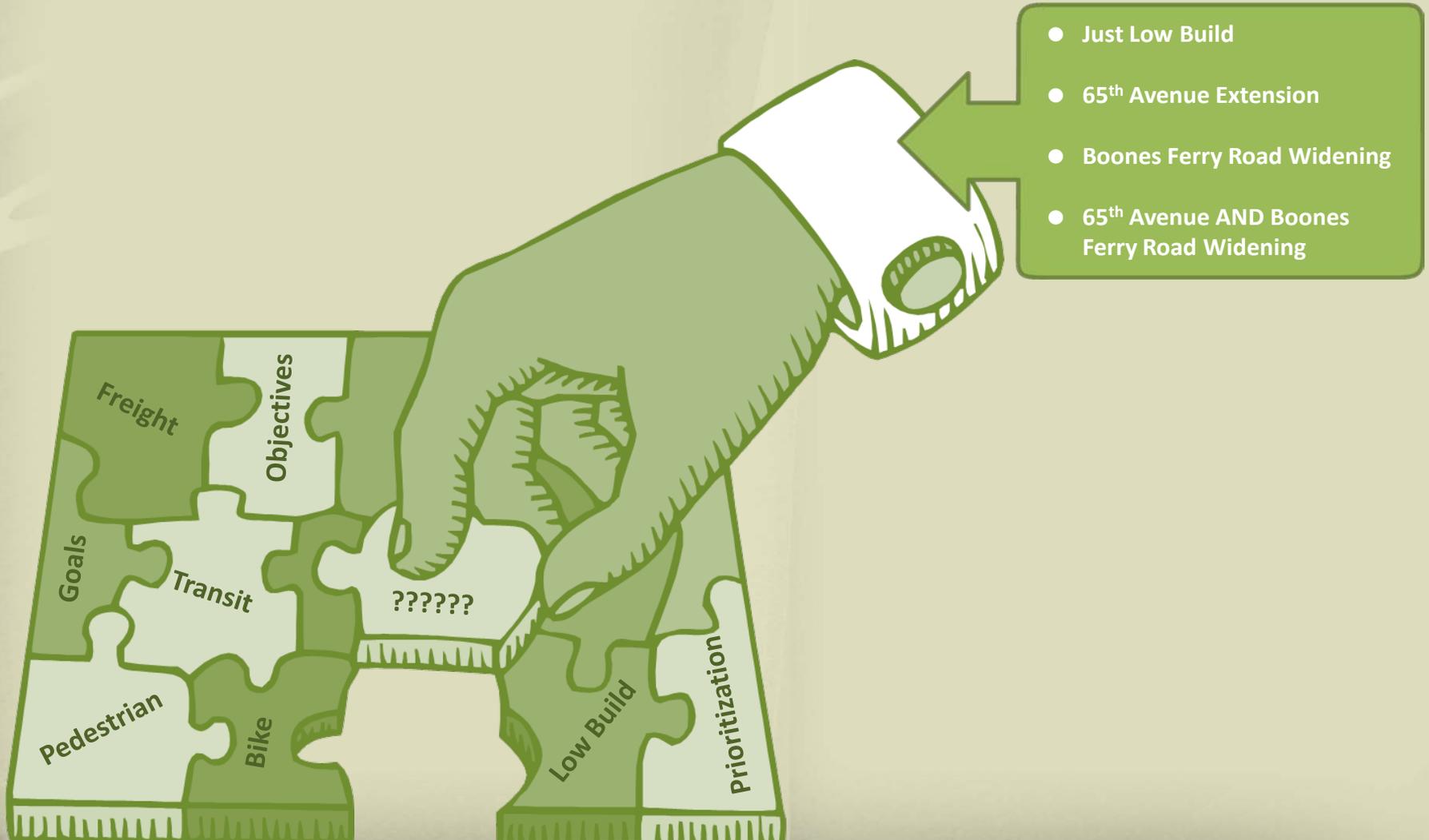
- ### Roadway Changes
- 19 Create a grid system near Kmart upon redevelopment with a connection to SW Seneca Street
 - 20 Add bus pullouts on SW Boones Ferry Road at existing bus stops where possible

- 30 Upgrade SW Borland Road to roadway standards
- 31 Add a center turn lane or median on SW Avery Street between SW Teton Avenue and SW Tualatin-Sherwood Road
- 32 Upgrade SW 105th/Blake Street/108th Avenues to roadway standards
- 33 Upgrade SW Boones Ferry Road to a 3 lane cross section throughout.
- 34 Upgrade Grahams Ferry Road to roadway standards
- 35 Upgrade SW Helenius Road to roadway standards
- 36 Upgrade SW Norwood Road to roadway standards
- 37 Upgrade SW Tonquin Road between SW Waldo Way and SW Grahams Ferry Road

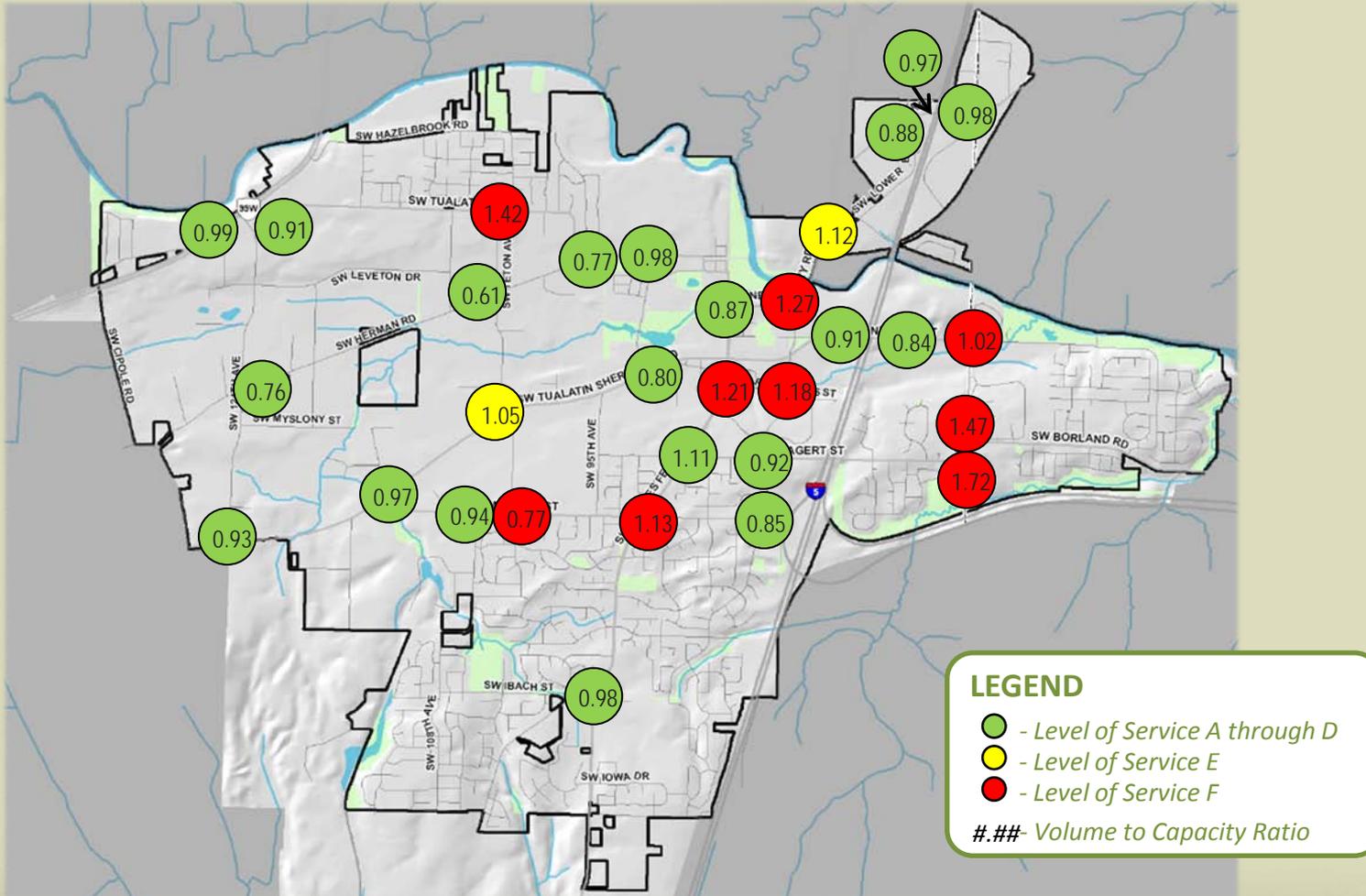
Future Potential Improvements



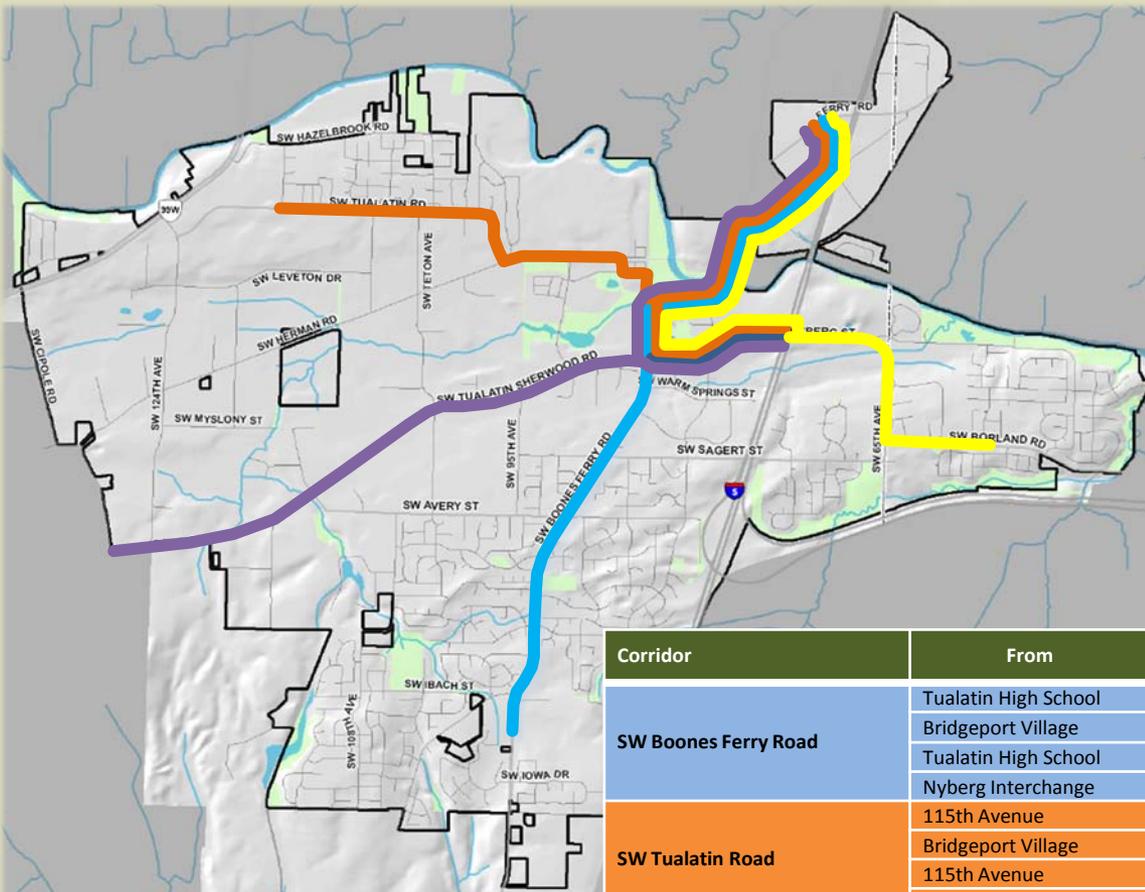
What we are looking for tonight



No-build Operations

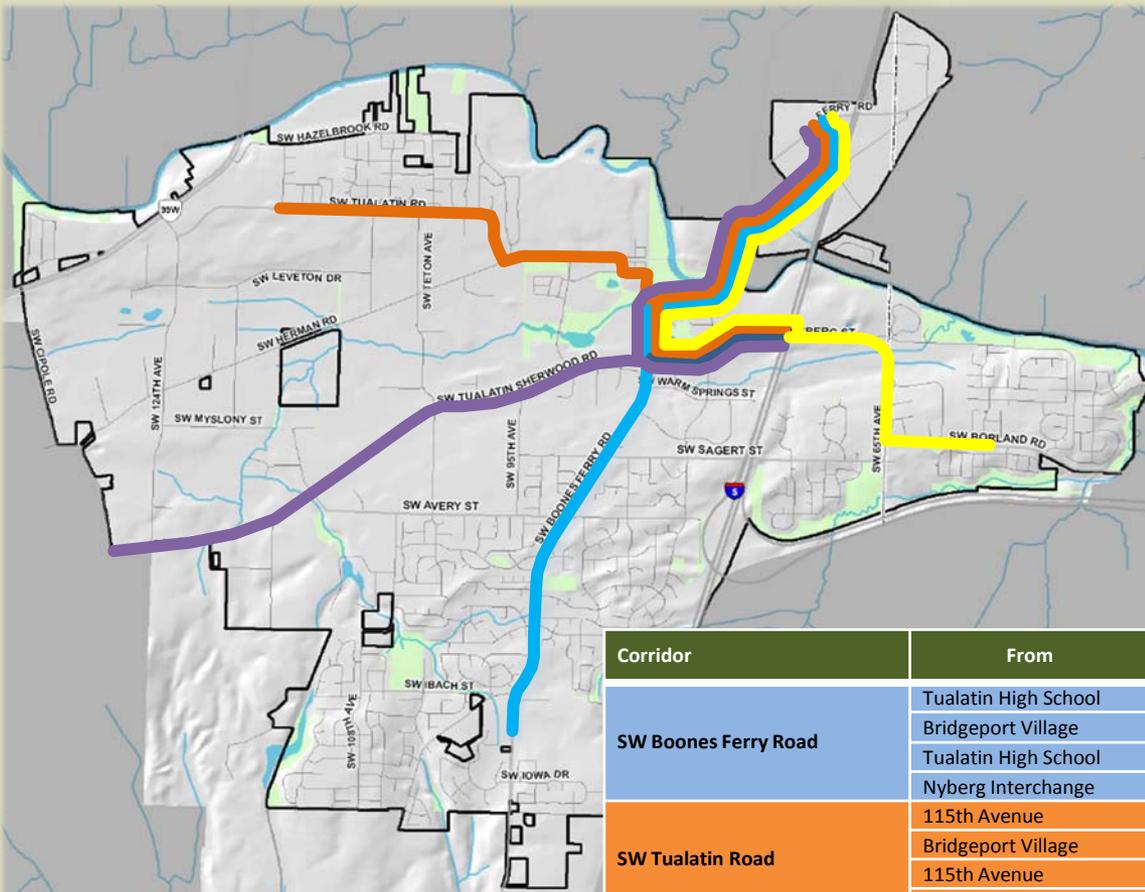


No-build Travel Times



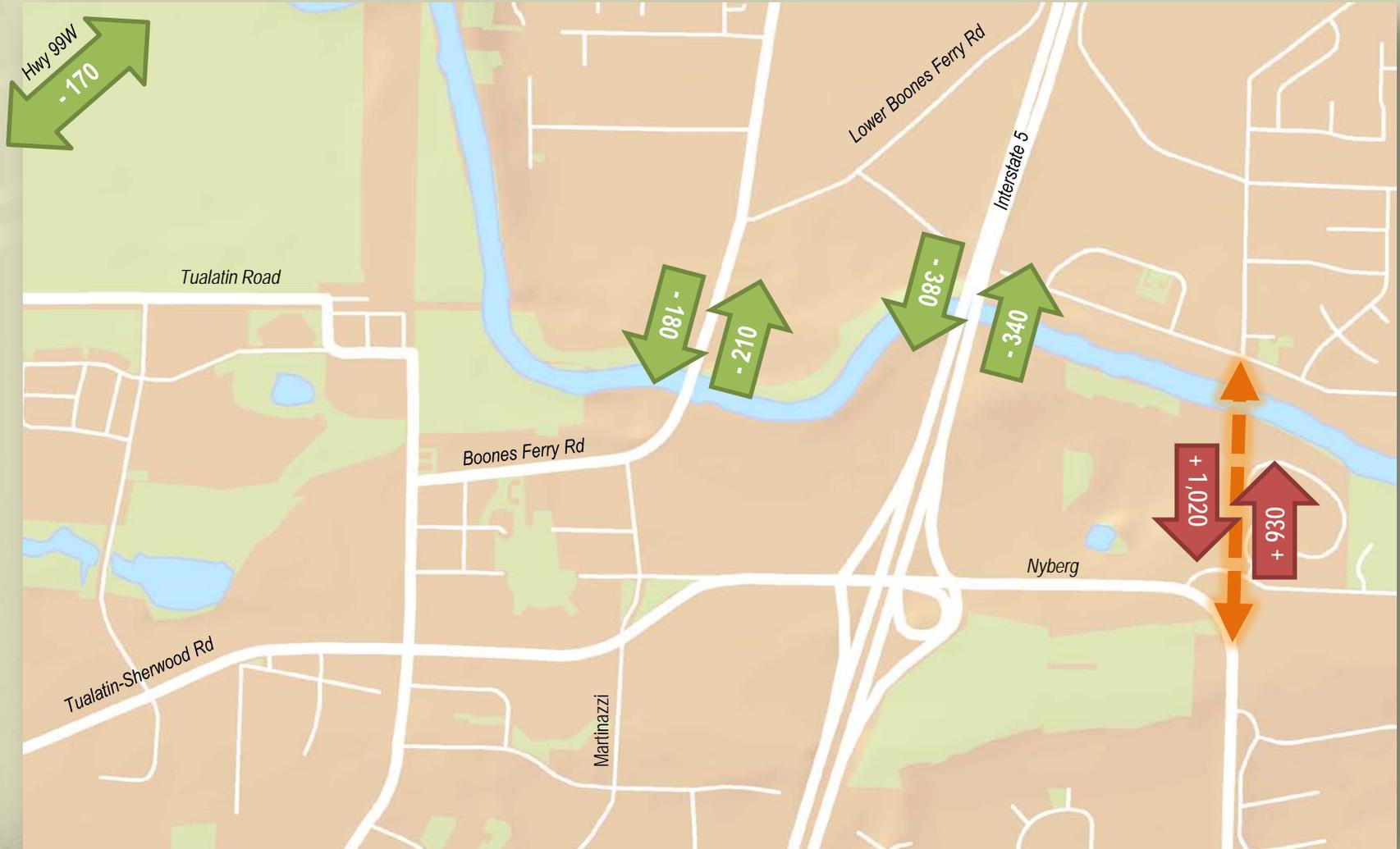
Corridor	From	To	Average Travel Time	Difference from Existing Conditions
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	15 min, 5 sec	+4 min, 45 sec
	Bridgeport Village	Tualatin High School	12 min, 10 sec	+3 min
	Tualatin High School	Nyberg Interchange	9 min, 40 sec	+2 min, 15 sec
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	+1 min, 5 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	13 minutes	+4 min, 25 sec
	Bridgeport Village	115th Avenue	11 min, 40 sec	+3 min, 10 sec
	115th Avenue	Nyberg Interchange	10 min, 35 sec	+2 min, 35 sec
	Nyberg Interchange	115th Avenue	10 min, 25 sec	+1 min, 45 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	17 minutes	+5 min, 20 sec
	Bridgeport Village	Cipole Road	17 min, 20 sec	+ 4min, 20 sec
	Cipole Road	Nyberg Interchange	11 minutes 35 sec	+2min, 55 sec
	Nyberg Interchange	Cipole Road	11 min, 50 sec	+1 min, 45 sec
SW Borland Road / 65th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	+15 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	+1 min, 10 sec
	Bridgeport Elementary	Bridgeport Village	12 min, 55 sec	+3 min, 45 sec
	Bridgeport Village	Bridgeport Elementary	14 min, 25 sec	+6 min

Low Build Travel Times

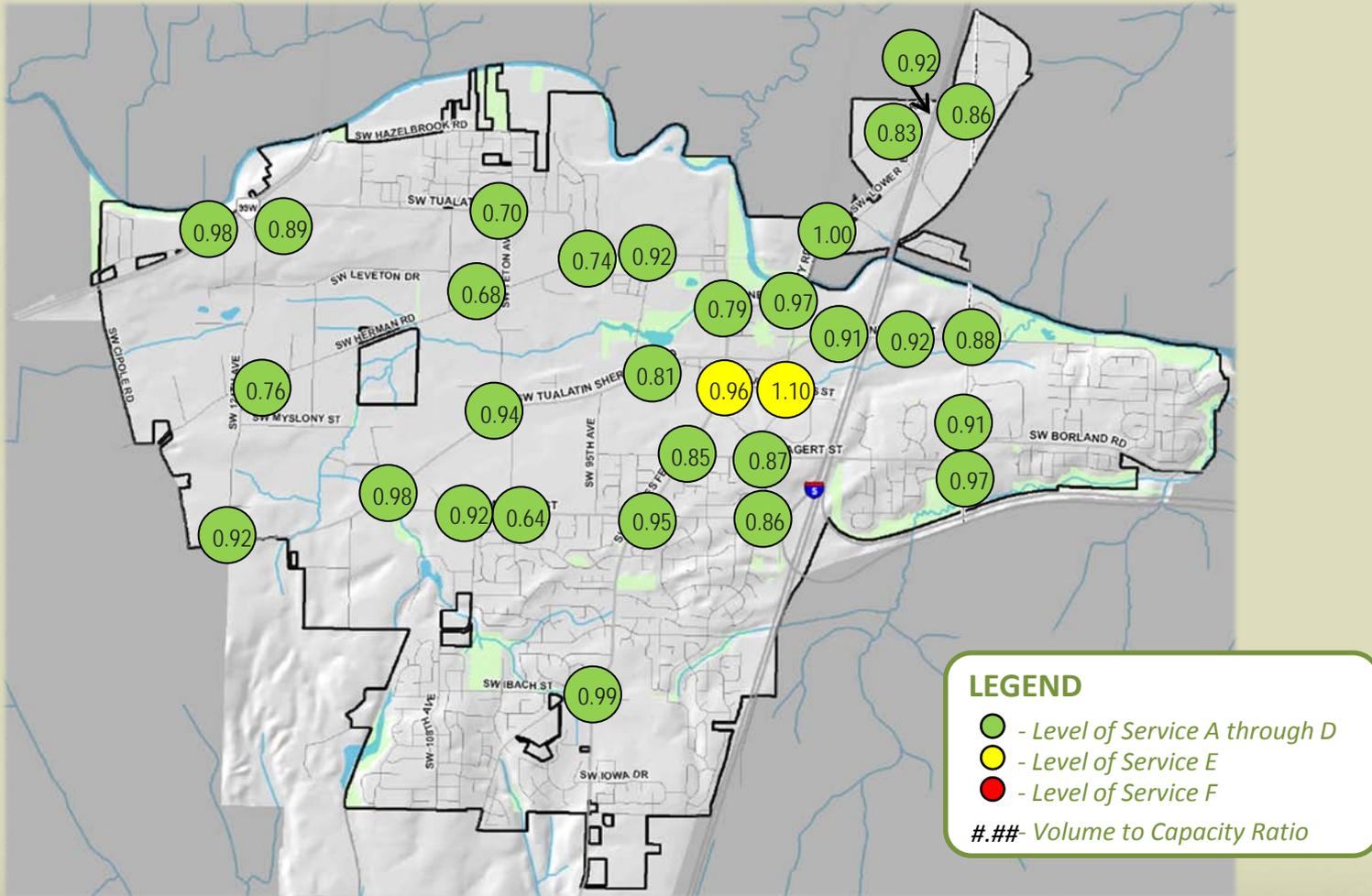


Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	15 min, 5 sec	No difference
	Bridgeport Village	Tualatin High School	12 min, 10 sec	No difference
	Tualatin High School	Nyberg Interchange	9 min, 40 sec	No difference
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	No difference
SW Tualatin Road	115th Avenue	Bridgeport Village	13 min, 30 sec	+30 sec
	Bridgeport Village	115th Avenue	12 minutes	+20 sec
	115th Avenue	Nyberg Interchange	10 min, 55 sec	+20 sec
	Nyberg Interchange	115th Avenue	10 min, 50 sec	+25 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	17 minutes	No difference
	Bridgeport Village	Cipole Road	17 min, 25 sec	+5 sec
	Cipole Road	Nyberg Interchange	11 min, 35 sec	No difference
	Nyberg Interchange	Cipole Road	12 minutes	+10 sec
SW Borland Road / 65th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	No difference
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	12 min, 50 sec	-5 sec
	Bridgeport Village	Bridgeport Elementary	14 min, 25 sec	No difference

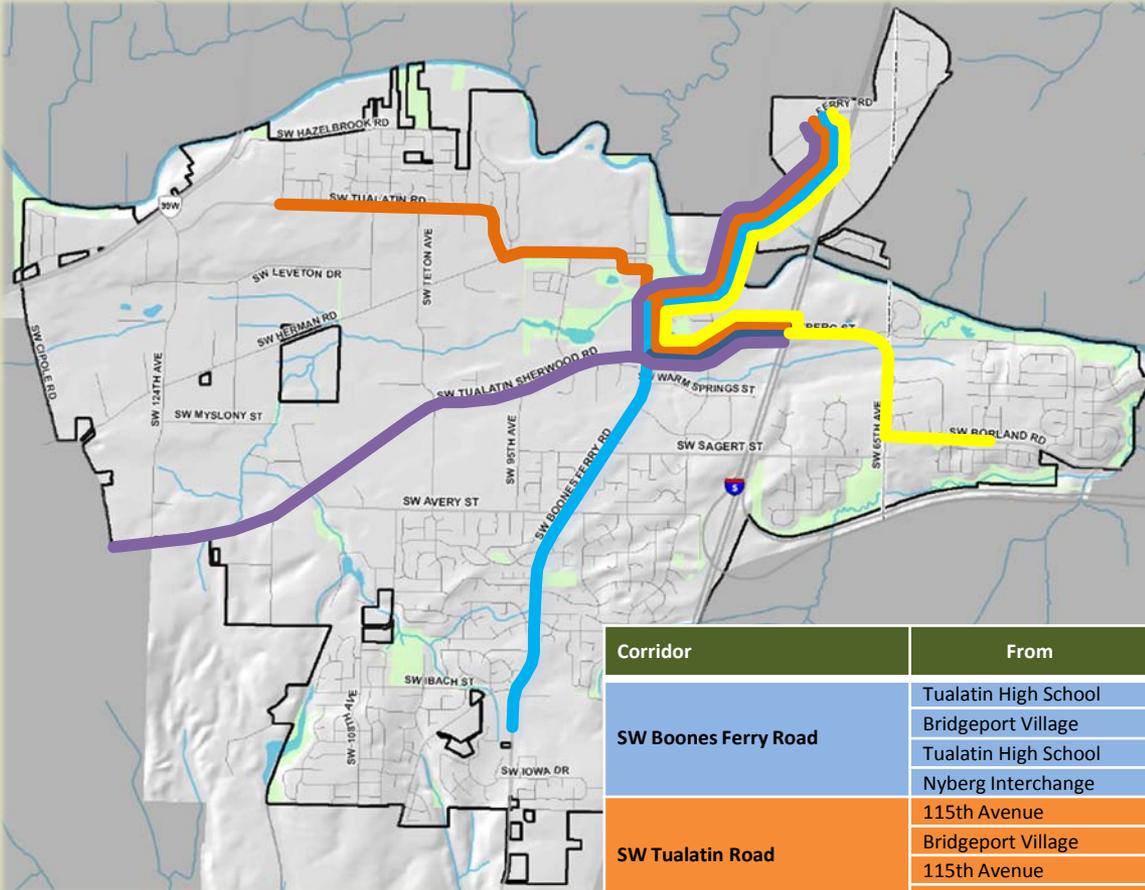
Low Build + 65th Ave Extension Volume Shifts



Low Build + 65th Ave Extension Operations

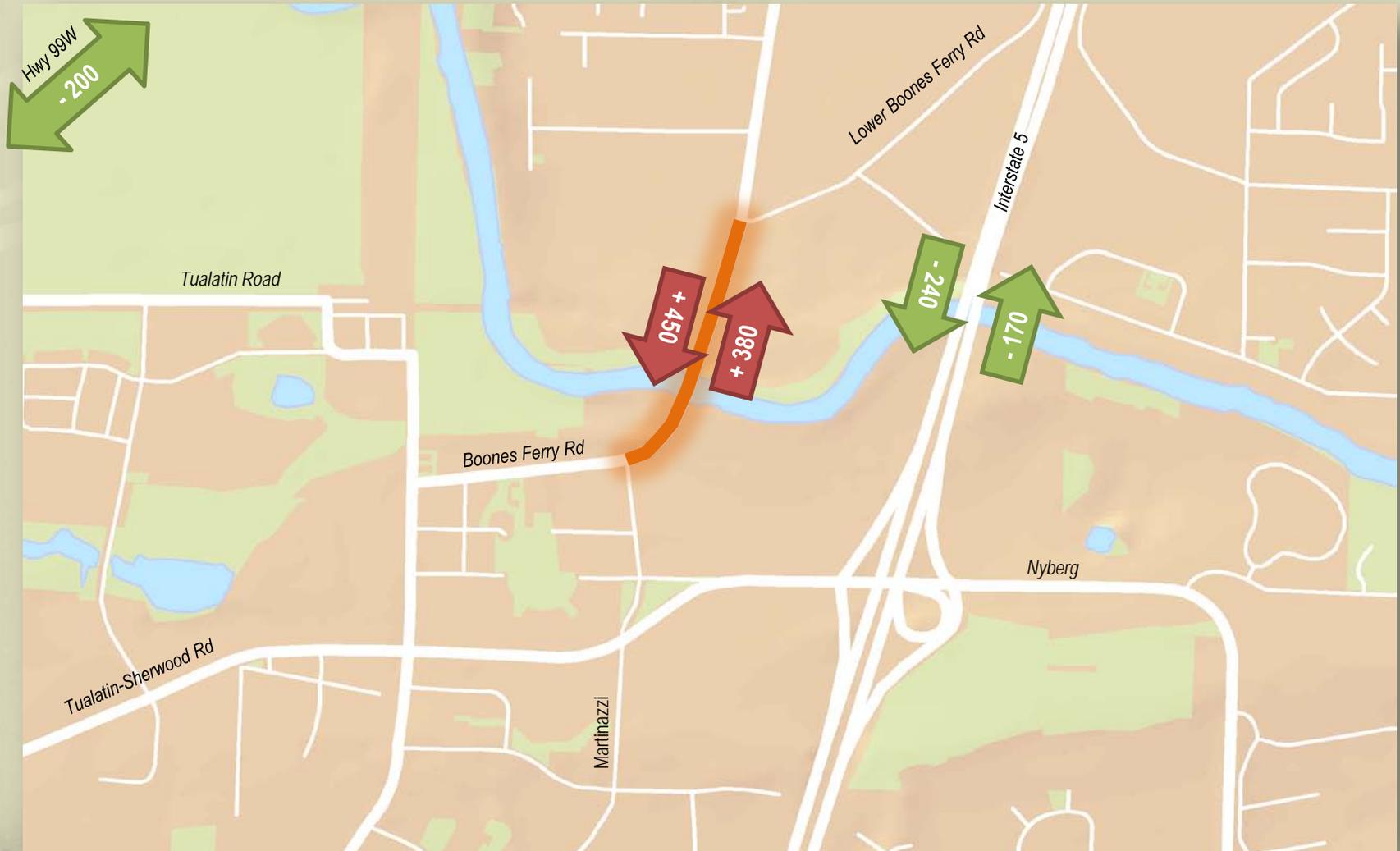


Low Build + 65th Ave Extension Travel Times

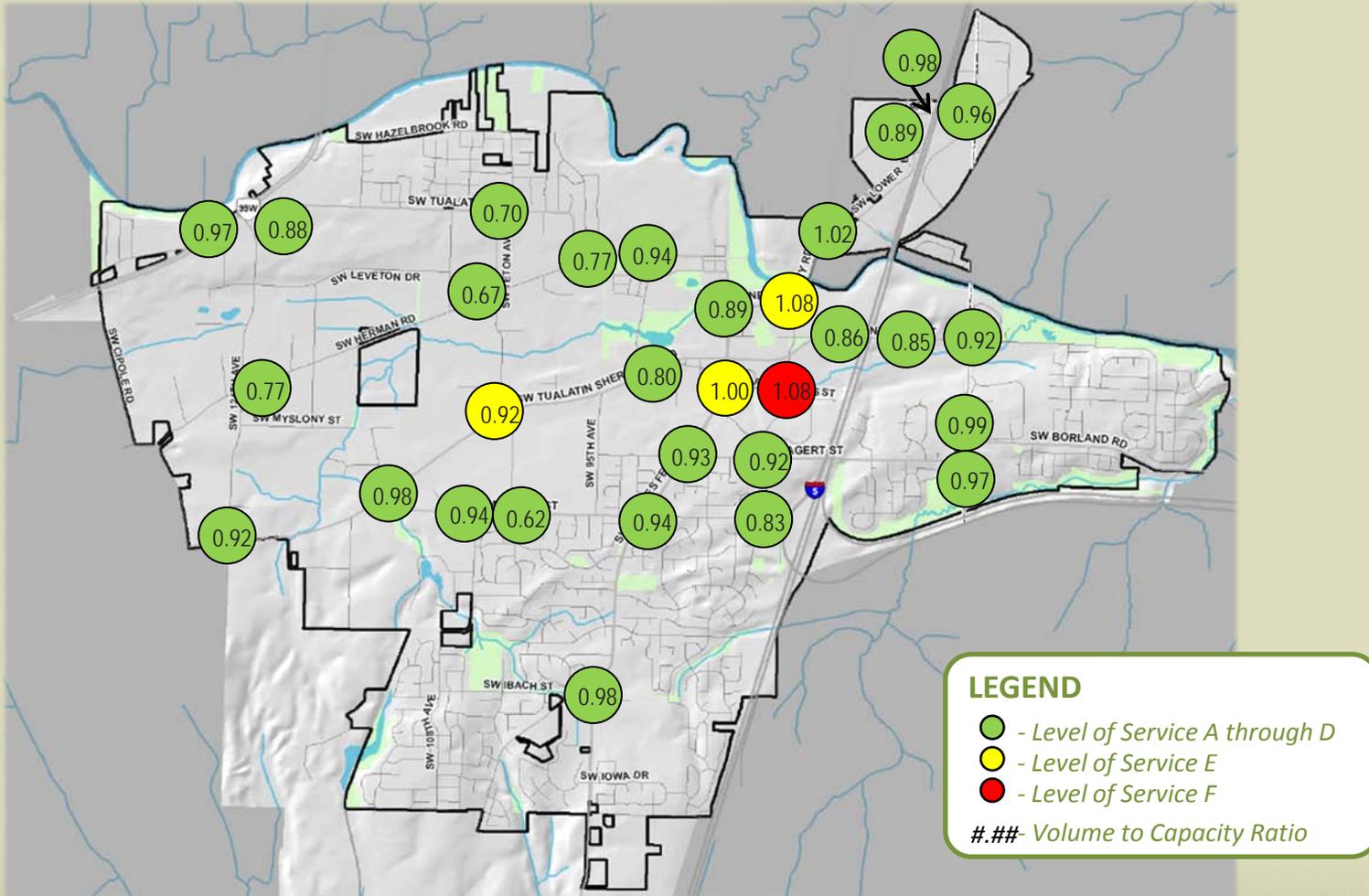


Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	13 min, 40 sec	-1 min, 25 sec
	Bridgeport Village	Tualatin High School	11 min, 20 sec	-50 sec
	Tualatin High School	Nyberg Interchange	10 min	+20sec
	Nyberg Interchange	Tualatin High School	8 min, 25 sec	+15 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	12 min, 20 sec	-40 sec
	Bridgeport Village	115th Avenue	11 min, 25 sec	-15 sec
	115th Avenue	Nyberg Interchange	11 min, 10 sec	+35 sec
	Nyberg Interchange	115th Avenue	11 min	+35 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	16 min	-1 min
	Bridgeport Village	Cipole Road	16 min 25 sec	-55 sec
	Cipole Road	Nyberg Interchange	12 min	+25 sec
	Nyberg Interchange	Cipole Road	12 min, 25 sec	+40 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 20 sec	No difference
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	10 min, 40 sec	-2 min, 15 sec
	Bridgeport Village	Bridgeport Elementary	12 min, 10 sec	-2 min, 15 sec

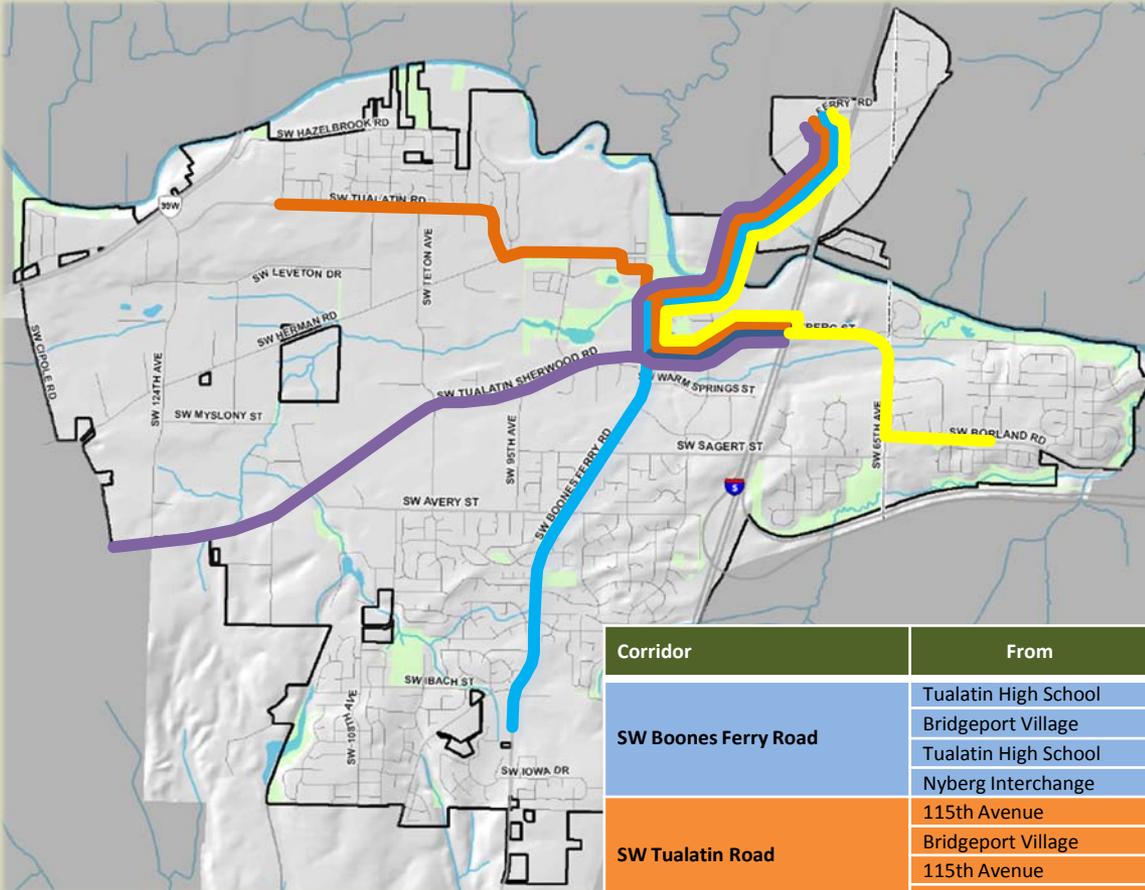
Low Build + Boones Ferry Road Widening Volume Shifts



Low Build + Boones Ferry Road Widening Operations

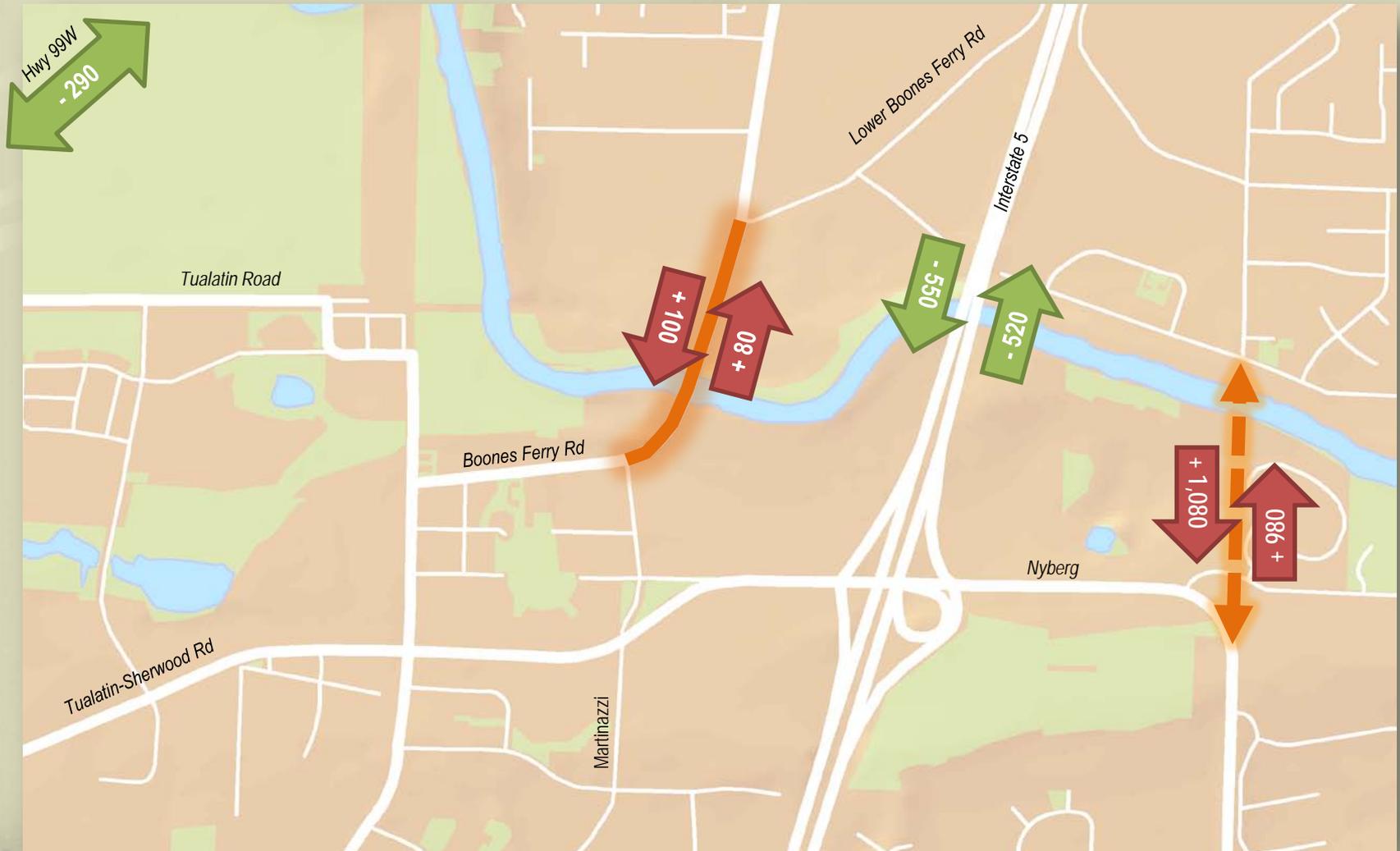


Low Build + Boones Ferry Road Widening Travel Times

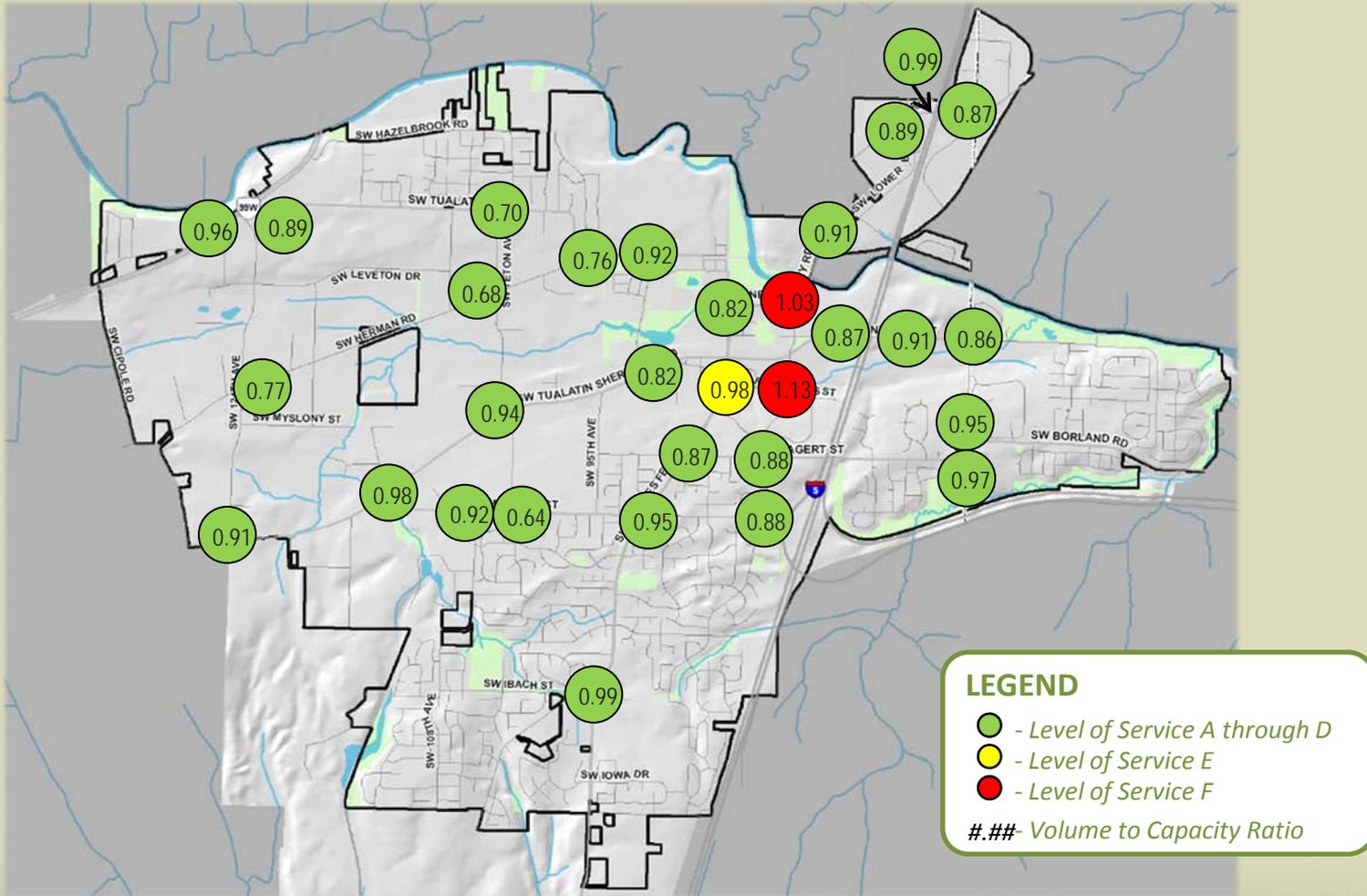


Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	13 min, 40 sec	-1 min, 25 sec
	Bridgeport Village	Tualatin High School	11 min, 30 sec	-40 sec
	Tualatin High School	Nyberg Interchange	9 min, 40 sec	No difference
	Nyberg Interchange	Tualatin High School	8 min, 10 sec	No difference
SW Tualatin Road	115th Avenue	Bridgeport Village	12 min, 30 sec	-30 sec
	Bridgeport Village	115th Avenue	11 min, 20 sec	-20 sec
	115th Avenue	Nyberg Interchange	10 min, 55 sec	+20 sec
	Nyberg Interchange	115th Avenue	10 min, 40 sec	+15 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	15 min, 50 sec	-1 min, 10 sec
	Bridgeport Village	Cipole Road	16 min, 40 sec	-40 sec
	Cipole Road	Nyberg Interchange	11 min, 35 sec	No difference
	Nyberg Interchange	Cipole Road	12 minutes	+10 sec
SW Borland Road / 65th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 25 sec	+5 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	12 min, 10 sec	-45 sec
	Bridgeport Village	Bridgeport Elementary	13 min, 40 sec	-45 sec

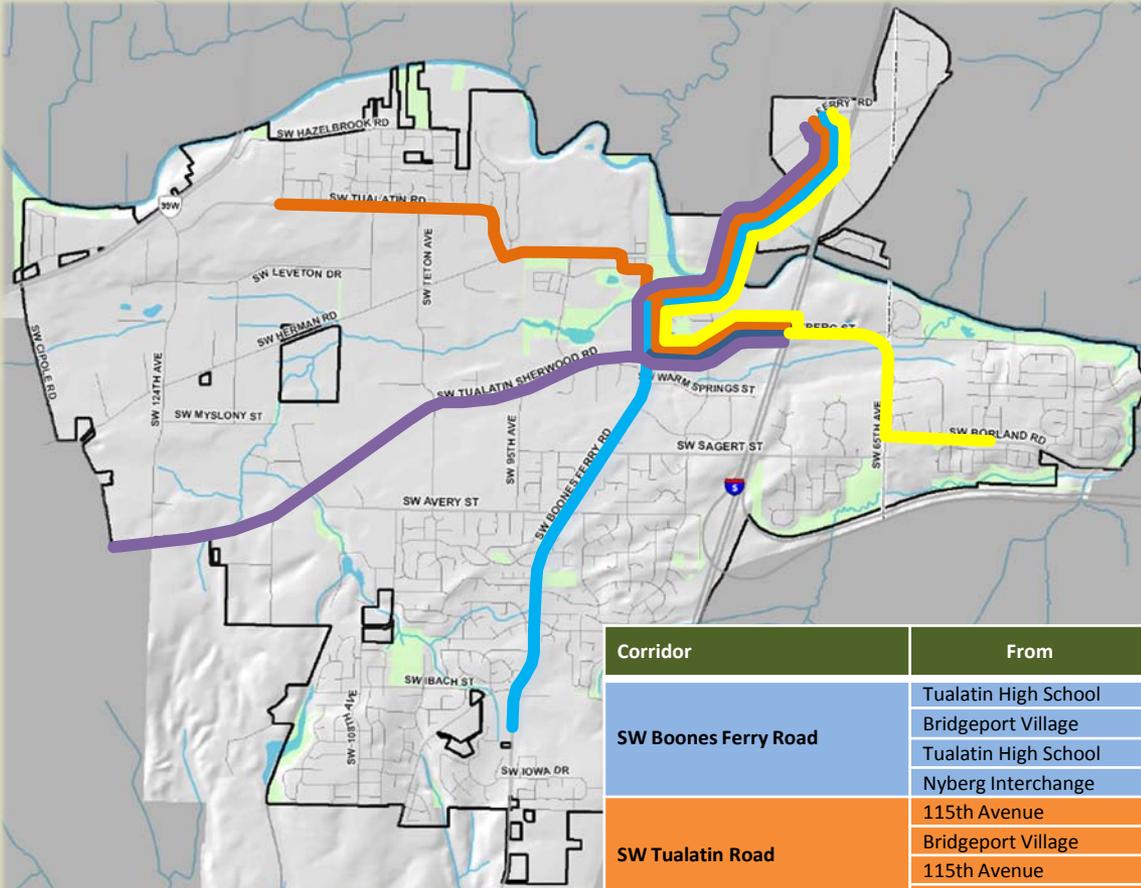
Low Build + 65th Ave + BFR Widening Volume Shifts



Low Build + 65th Ave + BFR Widening Operations



Low Build + 65th Ave + BFR Widening Travel Times



Corridor	From	To	Average Travel Time	Difference from Future No-build
SW Boones Ferry Road	Tualatin High School	Bridgeport Village	12 min, 35 sec	-2 min, 30 sec
	Bridgeport Village	Tualatin High School	10 min, 35 sec	-1 min, 35 sec
	Tualatin High School	Nyberg Interchange	9 min, 50 sec	+10 sec
	Nyberg Interchange	Tualatin High School	8 min, 25 sec	+15 sec
SW Tualatin Road	115th Avenue	Bridgeport Village	11 min, 30 sec	-1 min, 30 sec
	Bridgeport Village	115th Avenue	10 min, 55 sec	-45 sec
	115th Avenue	Nyberg Interchange	11 minutes	+25 sec
	Nyberg Interchange	115th Avenue	10 min, 55 sec	+30 sec
SW Tualatin-Sherwood Road	Cipole Road	Bridgeport Village	14 min, 55 sec	-2 min, 5 sec
	Bridgeport Village	Cipole Road	15 min, 40 sec	-1 min, 40 sec
	Cipole Road	Nyberg Interchange	11 min, 50 sec	+15 sec
	Nyberg Interchange	Cipole Road	12 min, 20 sec	+30 sec
SW Borland Road / 65 th Ave	Bridgeport Elementary	Nyberg Interchange	3 min, 30 sec	+10 sec
	Nyberg Interchange	Bridgeport Elementary	3 min, 30 sec	No difference
	Bridgeport Elementary	Bridgeport Village	10 min, 25 sec	-2 min, 30 sec
	Bridgeport Village	Bridgeport Elementary	11 min, 50 sec	-2 min, 35 sec

How do these projects pencil out?

Cost vs. Benefit Perspective

65th Avenue Extension

AM/PM Peak VHT Saved

✓ 548 hours

Project cost

✓ \$22M

Potential 20 year benefit

✓ \$50.9M

Boones Ferry Rd Widening

AM/PM Peak VHT Saved

✓ 244 hours

Project cost

✓ \$17.8M

Potential 20 year benefit

✓ \$22.7M

65th Ave + BFR Widening

AM/PM Peak VHT Saved

✓ 752 hours

Project cost

✓ \$39.8M

Potential 20 year benefit

✓ \$69.9M

Summary of Operations and Travel Time Findings

- Tualatin becomes very congested in the future
- Low Build does a fair job of mitigating intersection operations, but minor travel time changes
- 65th Avenue extension pulls traffic from Boones Ferry Road and enhances that travel time
- Boones Ferry Road widening helps enhance travel times, but creates some intersection issues in downtown
- Combination of 65th Avenue and Boones Ferry Road widening enhances travel times in North Tualatin, but has similar downtown intersection issues

Technical Team Recommendation

- In addition to the Low Build projects, include:
 - ① Include Boones Ferry Road widening project from Martinazzi to Lower Boones Ferry Road
 - ② Include 65th Avenue extension as a refinement plan project
 - Establishes and acknowledges the need for improvements and connectivity in the area
 - Acknowledges the need to work collaboratively with surrounding jurisdictions
 - Identifies a project area that goes into deeper planning analysis to determine details

What happens if I hold up my “STOP” sign?



- Project is recommended to not be included in the TSP
- Does not preclude project from being considered in future TSP updates
- Does not preserve the potential right-of-way

What happens if I hold up my “GO” sign?



- Project recommended to be included in the TSP
- Preserves potential right-of-way when new development comes to the table
- Additional study/coordination is necessary
- It will take a while for these projects to be built



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
1.	February 13, 2013 2:20 PM Compliance with TPR and Statewide Planning Goals	Jennifer Donnelly	<p>Subject: Tualatin's TSP Date: Wed Feb 13 14:20:51 PST 2013 From: "Donnelly, Jennifer" <jennifer.donnelly@state.or.us> To: AQUILLA HURD-RAVICH <AHURD-RAVICH@ci.tualatin.or.us> CC: "Fish, Gary" <gary.fish@state.or.us></p> <p>DLCD has reviewed a draft of the updated TSP for the City of Tualatin and have met with the city's planning staff to discuss it. Based on our review and the meeting with staff in December 2012, it appears that the proposed TSP update complies with the applicable portions of the Transportation Planning Rule (TPR) and with the applicable Statewide Planning Goals. Please feel free to call or e-mail me with any additional questions or concerns.</p> <p>Best, Jennifer</p> <p>Jennifer Donnelly Metro Regional Representative Community Services Division Oregon Department of Land Conservation and Development Portland Metro Regional Solutions 1600 SW Fourth Avenue, Suite 109 Portland, OR 97201 Office: (503) 725-2183 Cell: (971) 239-9451 jennifer.donnelly@state.or.us www.oregon.gov/LCD/</p> <p>Response: No response required.</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
2.	February 17, 2013 5:15 PM Hall Street and Tualatin Road Extensions; Effect on Community Park; Public Process	George Vigileos	<p>From: vigileos2@yahoo.com [mailto:vigileos2@yahoo.com] Sent: Sunday, February 17, 2013 5:15 PM To: COUNCIL; Kaaren Hofmann; Alice Rouyer Cc: AQUILLA HURD-RAVICH Subject: Fw: A Nimble Sabotage of the Public Role in the TSP Planning Process?</p> <p>Ladies and Gentlemen:</p> <p>Below is an email I sent this afternoon to the individual City Councilors in the hope that those who support authentic public involvement (versus that notorious "Fake Public Participation") will stand firm, approve the TSP, and not approve any additional "analysis" of either the Hall Street Extension to SW Boones Ferry, or the SW Lower Boones Ferry Extension to SW Tualatin Road. Both of those regional roadways have been studied enough.</p> <p>As evidence that enough public resources and funds have been spent, the City Council need only look to their own recent majority vote to remove the SW Hall Street Extension. As for the SW Lower Boones Ferry Road question, we should recall the massive engineering study done a few years ago by Metro on the I5-99W Northern Arterial/Tualatin Road Extension, which is the same road as the SW Lower Boones Ferry Extension to SW Tualatin Road.</p> <p>We know what these roads will do if built. They will carry regional traffic and severely diminish the appeal, usability, and value of Tualatin Community Park. Adding roads will not stop congestion in Tualatin when the source of the congestion is growth in other cities. The participants in the public process agreed with Councilor Brooksby's comments during the Hall Street vote, namely, that regional roads should go around our town, not through it. This is a wonderful opportunity for our elected leaders to demonstrate the city's resolve to represent its citizens' interests.</p> <p>Please enter this email and the email below into the TSP Public Comment Record.</p> <p>Thank you, George Vigileos 18230 SW Shawnee Trail Tualatin, OR 97062 503-612-6994</p> <p>----- Forwarded Message ----- From: "vigileos2@yahoo.com" <vigileos2@yahoo.com> To: Ed Truax <edtruax@gmail.com>; Joelle Davis <joelle.d.davis@gmail.com>; Frank Bubenik <fbubenik@hotmail.com>; Monique Beikman <monique.beikman@gmail.com>; Nancy Grimes <ngrimes@ci.tualatin.or.us>; Wade Brooksby <wadebrooksby@hotmail.com> Sent: Sunday, February 17, 2013 3:34 PM Subject: A Nimble Sabotage of the Public Role in the TSP Planning Process?</p> <p>Greetings Council Members:</p> <p>Is the above an accurate prediction of things to come? Please say it is not.</p> <p style="text-align: center;">Continued on next page</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
2. Continued	February 17, 2013 Hall Street and Tualatin Road Extensions; Effect on Community Park; Public Process	George Vigileos	<p>Once again, when the mayor is finding he is not getting the outcome he wants, he is scrambling to eschew the product of the agreed to and adopted process to develop Tualatin's new TSP.</p> <p>That process was widely advertised as one which differentiated itself from past Tualatin planning deficiencies, and was to have incorporated input from the public, from business, from expert consultants, and amply guided by the constraints and parameters laid out by our City administrators and leadership otherwise. And big bucks, <u>taxpayer bucks</u>, were spent on consultants to make that happen.</p> <p>That work was done. That project was completed. All input that was to have been accumulated and reconciled was, in fact, accumulated and reconciled. That includes all of the technical upsides and downsides raised by anyone throughout all of the meetings and planning sessions. All of the tasks and projects had either been adopted into the plan, or not, based on the established decision-making processes for the new TSP. This, despite our obstinate mayor's efforts to stack the deck in the final planning sessions, when he saw his pet projects were slipping away.</p> <p>But Lou did not get the outcome he wanted. So he wants to flip the coin again for double or nothing. Except Lou has decided that, <u>this time</u>, we are all playing by 'his' rules. Under the <u>new</u> rules for flipping the coin, the mayor never has to pay if he loses, because apparently, he can insist on flipping the coin again and again until it lands his way.</p> <p>Please don't let this happen. Please do not let the above narrative become reality. Please vote to accept the honest, open, and "trusted" process that was used to develop the TSP draft before you now. This was a promise, an understanding, a trust between the city and its citizens. That trust is at risk in a major way.</p> <p>Let's not see letters to the Oregonian or Tigard Times with titles like "A Nimble Sabotage of the Public <u>Trust</u> in the TSP Planning Process."</p> <p>Thank you,</p> <p>George Vigileos 18230 SW Shawnee Trail Tualatin, OR 97062 503-612-6994</p> <p>Response: February 22, 2013 Dear Mr. Vigileos,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
3.	February 12, 2013 10:29 AM Congestion; Reference to 2001 TSP	Gail Hardinger	<p>From: Sherilyn Lombos Sent: Sunday, February 17, 2013 10:32 AM To: Kaaren Hofmann; AQUILLA HURD-RAVICH; Alice Rouyer Subject: FW: TSP</p> <p>From: LouOgden Sent: Tuesday, February 12, 2013 2:42 PM To: Sherilyn Lombos Subject: Fwd: TSP</p> <p>I didn't see your name on this so want to be sure it is in the record of comments Thanks,</p> <p>Lou Ogden Resource Strategies Planning Group Group Benefits & Life, Health, Disability, & Long Term Care Insurance for Businesses and Individuals 21040 SW 90th Ave. Tualatin, OR 97062 Phone 503.692.0163; Fax 503.914.1699 lou@louogden.com</p> <p>Begin forwarded message: Resent-From: <logden@ci.tualatin.or.us> From: GAIL HARDINGER <GAIL@fujimico.com> Date: February 12, 2013, 10:29:15 AM PST To: "mbeikman@ci.tualatin.or.us" <mbeikman@ci.tualatin.or.us>, "wbrooksby@ci.tualatin.or.us" <wbrooksby@ci.tualatin.or.us>, "fbubenik@ci.tualatin.or.us" <fbubenik@ci.tualatin.or.us>, "jdavis@ci.tualatin.or.us" <jdavis@ci.tualatin.or.us>, "ngrimes@ci.tualatin.or.us" <ngrimes@ci.tualatin.or.us>, "etruax@ci.tualatin.or.us" <etruax@ci.tualatin.or.us>, "logden@ci.tualatin.or.us" <logden@ci.tualatin.or.us> Subject: TSP</p> <p>Dear Mayor and Council Members;</p> <p>Once you get home and realize all of the things you should have said or said better, you have a tendency to kick yourself.</p> <p>At any rate I will not be here on the 25th again to say all of those things that I should have said. So I would like say to the members considering voting for the currently proposed TSP to think twice about how to vote. This is a Transportation Plan for the future. I thought the purpose of transportation was transportation. Without being able to move people through Tualatin livability will be nonexistent. It is a feel good feeling to try to satisfy all of the peoples interests, but it doesn't do anything for the movement of traffic through Tualatin.</p> <p>I would hope in, 15 to 20 years the residents will look at this City Council and say; These guys did the right thing, it was a tough choice but they stood by the decision they made in 2001 to help cure the Transportation issues in Tualatin for the long term.</p> <p style="text-align: center;">Continued on next page</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
3. Continued	February 12, 2013 Congestion; Reference to 2001 TSP	Gail Hardinger	<p>But in the future if the traffic is far worse than it is now, and it will be, people will say "I hate this traffic". "It takes me 20 minutes to get through town to even go shopping at Fred Meyer", or "I think I will start shopping in Sherwood or Tigard", or "It's faster to go to King City on the dreaded Hwy 99, than to fight the traffic in Tualatin. And the conclusion they will come to is "I wish the City Council would have chosen more wisely in 2013".</p> <p>In a nutshell there will be no Livability in Tualatin if you "chuck" the plans you have made, or at least look at a combination of the plans. By the way does it really have to be all or nothing?</p> <p>Thanks for listening last night and to my thoughts in this note.</p> <p>Best regards,</p> <p>Gail Hardinger EHS Manager 11200 SW Leveton Dr. Tualatin Or 97062 503-972-9424 - Desk 503-504-9265 - Cell</p>  <p>P.S. Traffic Congestion = No Livability = ☐ People</p> <p>Response: February 22, 2013 Dear Mr. Hardinger,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
4.	February 18, 2013 8:04 AM Drive-through Traffic	Reba Toby	<p>From: Catherine Holland [mailto:catherine.p.holland@gmail.com] Sent: Tuesday, February 19, 2013 8:04 AM To: Kaaren Hofmann Subject: Fwd: Drive though traffic</p> <p>Kaaren - Can you direct Reba to the specific page in the report? Can you answer these questions? Thanks, Cathy -</p> <p>----- Forwarded message ----- From: <rtdoglover@yahoo.com> Date: Mon, Feb 18, 2013 at 10:04 PM Subject: Drive though traffic To: Cathy Holland <catherine.p.holland@gmail.com></p> <p>Cathy, At the Tsp work group I attended, I asked the city engineer about what the percentage of drive through traffic is now? And what is the percentage of traffic that is drive through in the future without any of the improvements. She said that it is stated in the TSP report somewhere. Can we find this out, do you know where to find this? Also, with Durham Street expansion, 124th street extension, other improvements that advanced into the final plan, what is the new expected percentage of drive thru traffic? Was the new roadway that Monique helped get approved that connects through the church property to I-5 considered by the consultants in the TSP results? In other words, how much of Tualatin's traffic problems are caused by drive through traffic now and how much of our traffic problems will be alleviated by Durham and 124th etc? Along with Basalt Creek having it's own roadways/solutions. In other words, will it show that drive through traffic has been our biggest problem and, that by diverting it, it takes care of many of our problems, Reba</p> <p>Response: February 19, 2013 10:20 AM Reba/Cathy- This information is in the Existing Conditions and Future Conditions Reports that are in the Appendices. The Existing Conditions report starts on page 192...The discussion about Trip Distribution starts on page 262 (pg 3 of the Future Conditions Report). Pages 271 and 272 show the powerpoint slides that talk about it. They also show the projects that are assumed to provide that number.</p> <p>Hope this helps. Let me know if you have additional questions.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
5.	February 19, 2013 TSP Project BP 10	Jennifer Hughes	<p>TSP project BP 10: I realize that project locations may be approximate, but the mapped location for this multi-use path seems bizarre. It appears to travel through developed residential lots south of Willow Street between 108th and 106th before heading north through an additional developed lot or two and connecting with 105th. Is the map just way off, are there undeveloped easements through these lots, or ??? Thank you for any clarity you can provide.</p> <p>dhughes29@hotmail.com</p> <p>Response: February 22, 2013 Hi Jennifer, Thanks for the comment. I assume you were looking at the map in the TSP called Figure 7 Bicycle and Pedestrian Element. On that map BP10 is approximated. You can see the path more clearly on the Bicycle and Pedestrian Plan Figure 11-4 which can be found on page 59 of the pdf linked below. The link is to the Council packet for Monday February 25 and is a large document so it will take a few minutes to completely download. The trail that connects Ibach park to SW 105th is shown on City owned property.</p> <p>http://www.tualatinoregon.gov/sites/default/files/fileattachments/citycouncil/calevents/14245/cc_packet_2-25-13.pdf</p> <p>I hope that helps,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>
6.	February 20, 2013 Approve TSP as proposed	Diane Baum	<p>Pease support tualatin residents by voting to approve the tsp WITHOUT adding back adtl roads that failed to meet objectives set up in the transportation task force. I hope that the city council support the public involvement process they provided and act on its recommendation Thank you</p> <p>baumdiane@yahoo.com</p> <p>Response: February 21, 2013 Ms Baum-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Kaaren Hofmann, PE Engineering Manager City of Tualatin Community Development 503-691-3034 www.ci.tualatin.or.us</p>



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	Date & Subject	Name	Comment
7.	February 22, 2013 Approve TSP as proposed	Carol & John Cesnalis	<p>Dear Mr. Mayor and City Councilors: February 22, 2013 RE: the Tualatin TSP</p> <ol style="list-style-type: none"> 1. The public process to determine our transportation needs in our region was a professional inclusive process. 2. The TSP plan which was developed over the last 1.5 to 2 years took into consideration many options for improvements. The working sessions which my husband & I attended had broad representation from many groups: residents, employers and employees working in Tualatin, professional engineers and trained city planners as well as citizens who use the roads, park amenities and bike riders traveling to and from Tigard and points beyond. 3. The final draft of the plan evaluated and reflected the goals and objectives (7 points, all of equal importance—see “refinement Areas II” presented to the Tualatin Transportation Task Force August 23, 2012) This final plan reflected and determined which projects met the majority of the goals and objectives. 4. The two roads now being put forward yet again: the Hall Street extension and the “Lower Boones Ferry Road extension (formerly call the Tualatin Road extension,) did not pass the 7 goals and objectives stated in all of our deliberations and therefore were not passed forward to be included in the TSP. 5. My husband and I urge you to approve the TSP as put forward and not to burden the tax payers with more and more expensive studies and evaluations. We who live, work and use our amenities need to move forward with all the other transportation improvements already in the plan which taken as a whole were seen to meet Tualatin’s transportation needs and were endorsed by the majority of the peoples and groups mentioned in point #2 . <p>Thank you for your consideration of this important issue, Carol & John Cesnalis Tualatin residents for 32 years</p> <p>Response: February 22, 2013 Dear Mr. and Mrs. Cesnalis,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>



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	Date & Subject	Name	Comment
8.	February 20, 2013 Approve TSP as proposed /Hall Street Bridge	Whitlee Preim	<p>I reside in Tualatin on Chinook St., and I just want to voice my thoughts that the city should adopt the current TSP as it stands. It seems strange to me that we are considering ruining one of our beautiful green spaces when around the country cities are fighting to create more of them. I do not believe the Hall St. Bridge would benefit the city of Tualatin, if we are looking at the long term effectiveness of traffic control, then this is a temporary band-aid. In 15 years with population growth and industry expansion this bridge would no longer effectively reduce congestion, and we will have to revisit this issue again.</p> <p>I appreciate your time, thank you. Best, Whitlee Preim</p> <p>Response: February 20, 2013 Dear Whitlee,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely, Ben Bryant Management Analyst</p>
9.	February 20, 2013 Approve TSP as proposed/Hall Street Bridge	Justin Siddon	<p>I just want to voice my opinion that the City should adopt the current TSP and not consider putting the Hall street bridge back into the plan. We should be working to strengthen the walkability and pedestrian friendliness of our downtown and parks area. Putting a major transit corridor right through the heart of the city is a poor choice in developing our city into the next premier suburban location.</p> <p>Response: February 20, 2013</p> <p>Dear Justin,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely, Ben Bryant Management Analyst</p>



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	Date & Subject	Name	Comment
10.	February 15, 2013 Public Safety, Economic Development, Long Term Viability of Community; Does not support TSP as proposed	Joseph Troccoli McLane Foods	<p>For the record, I have attached a follow up letter to my statement at the Tualatin City Council Meeting of Monday, 2-11-13.</p> <div style="text-align: right;">  February 15, 2013 </div> <hr/> <p>Tualatin City Council City of Tualatin Tualatin, OR 97062-7092</p> <p>Dear Mayor Ogden and City Council Members:</p> <p>My apologies, I wasn't at my best the evening of February 11, 2013 at the City Council Meeting, as I wasn't aware there would be an opportunity for me to speak. As stated at the meeting the TSP as presented does not take into account; Public Safety, Economic Development nor the Long Term Viability of the Community.</p> <p>It's my belief that if the council accepts this plan they will not have addressed the safety issues that many large employers and residents brought forward. Further this plan potentially dampens the economic development of varied natures (residential, small and large businesses) and thereby negatively impacts the long term viability of the City of Tualatin and its community.</p> <p>From a totally different perspective; if Tualatin is going to attract economic development why wouldn't the city council want to attract large to larger businesses? The business community would then pick up a larger part of the tax liability of the city, lessening the burden of homeowners. Additionally, Tualatin would then not only be attracting the business economic development it seeks, it would potentially be bringing higher paying jobs into the community with the likelihood of more prospects seeing the value of; developing, working and living in a great community like Tualatin. As a resident of Sherwood, from my perspective, our two cities continue to bring in predominately lower wage jobs and continue to struggle to find ways to provide the necessary services for the community and their respective residents.</p> <p>Currently there are two new warehouses going up on Tualatin-Sherwood Road, the TSP as presented does not address the traffic they will bring and others would bring. This additional traffic as well as the prospect of more development is the core issue at hand. This is not a regional issue as one or more have commented it is a Tualatin community issue. It is an issue for current as well as prospective Tualatin businesses and homeowners. Everyone has the potential of losing if these hard issues are not addressed and the Tualatin City Council chooses to adopt the TSP. Potentially the very growth the city is interested in attracting could literally go around Tualatin or bypass it, thereby leaving the city and the Tualatin City Council with the burden of managing future of growing expenses, less or the same revenue base and in turn increased taxes for the community.</p> <p>I have heard or read testimony from; PGE, Legacy Meridian Park Medical Center and Milgard Windows & Doors and agree with their statements. Further, I would respectfully ask that the City Council reject the current TSP as currently proposed.</p> <p>Sincerely,  Joseph Troccoli General Manager McLane Foodservice, Inc. – Tualatin, Oregon</p> <p>Response: February 22, 2013 Dear Mr. Troccoli, Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard. Sincerely, Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>



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	Date & Subject	Name	Comment
11.	February 21, 2013 Approve TSP as proposed	Anne Greer	<p>I am a resident of Durham and would be greatly impacted in a negative way by the two projects, the Tualatin Road Extension (the Bridge over the Park) and the Hall Street Extension (running along next to the Park) that are bring proposed.</p> <p>These two projects were deleted from the plan after an 18-month public outreach effort led by a large representative Tualatin Transportation Task Force selected by the City Council and involving a large number of Working Groups, open to all interested members of the public. The process revealed that the above two projects did not meet the criteria established by the Task Force. On April 19, 2012 the Task Force voted unanimously to remove the Tualatin Road Extension from the Transportation Plan. The City Council approved this decision and so did Metro. At subsequent meetings the City Council voted to delete the Hall Street Extension because the Task Force was divided. The roadway system currently in the plan is deemed adequate until 2035 according to Metro design standards.</p> <p>PLEASE SUPPORT THE PUBLIC PROCESS AND residents of Tualatin and surrounding communities by voting to approve the TSP without adding back additional roads that failed to meet the objectives set up the Tualatin Transportation Task Force. Please reject this last minute attempt to undo the public process. No road through Tualatin is worth damaging our park, or hurting our neighborhoods and environment.</p> <p>Thanks for your consideration, Anne T. Greer</p> <p>Response: February 21, 2013 Ms. Greer-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Kaaren Hofmann, PE Engineering Manager City of Tualatin Community Development 503-691-3034 www.ci.tualatin.or.us</p>
12.	February 21, 2013 Approve TSP as proposed	Pat Carroll	<p>Yes on TSP update Thank you Pat Carroll</p> <p>Response: February 22, 2013 Dear Mr. Carroll,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>



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	Date & Subject	Name	Comment
13.	February 21, 2013 Approve TSP as proposed	Cori Conway	<p>Hello,</p> <p>I have a few questions, please?</p> <p>How can we support the residents of Tualatin's wishes and approve the transportation plan as it is now? How do we stop the attempts of Chamber of Commerce and the Mayor to postpone the adoption of the TSP and waste money?</p> <p>We don't want a bridge, we don't want Hall extended! How many times do we have to say it? STOP MESSING AROUND AND DO SOMETHING ABOUT THIS!</p> <p>Keep out of our wetlands and parks!</p> <p>Thank you,</p> <p>Cori Conway Tualatin Road resident Cori_oregon@yahoo.com</p> <p>Response: February 21, 2013 Ms. Conway,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>
14.	February 21, 2013 Approve TSP as proposed	Virginia Green	<p>As a citizen of Tualatin I want to urge you to adopt the TSP plan and <u>oppose further study of Hall Street extension and the expressway over Community Park.</u></p> <p>Thank you for your attention to this very important matter to all of us who live here and value the quality of life in our community.</p> <p>Virginia Green Tualatin</p> <p>Response: February 21, 2013 Ms. Green-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Kaaren Hofmann, PE Engineering Manager City of Tualatin Community Development 503-691-3034 www.ci.tualatin.or.us</p>



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	Date & Subject	Name	Comment
15.	February 21, 2013 Approve TSP as proposed	Shelley Ballestrazze	<p>I would like to voice my opinion that I DO NOT want the Hall Street Extension or Boones Ferry Road extension through Tualatin! I own a business about 100 yards away from this "project" and do not want the additional traffic.</p> <p>Thank you.</p> <p>Shelley Ballestrazze Northwest Core Balance 8625 SW Tualatin Road Tualatin, OR 97062</p> <p>www.nwcorebalance.com (503) 922-1104 studio line</p> <p>Response: February 22, 2013 Ms. Ballestrazze-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely, Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>
16.	February 21, 2013 Approve TSP as proposed	George Klein	<p>I'm very frustrated with the Mayor and those aligned with him for not listening to the Citizens of Tualatin on the Bridge and other traffic ideas. I will actively continue to get the word out that certain elected officials are continuing to not listen to its people. Tualatin residents have continuously and overwhelming rejected the bridge over our park bringing congestion to our southern family friendly neighborhood, spend our limited tax dollars to help people outside our city plow through and turn our small city into a freeway and ruin our neighborhoods.</p> <p>Why are you not listening to your citizens? Why are you wasting our tax \$\$\$\$? Listen to the people who elect you please!!!!!!!!!!</p> <p>Please implement Smart Traffic Lights on 99w(work with the city of Tigard and Washington county) and in Tualatin as a lower cost alternative and create better flow that way.</p> <p>George Klein Southside resident</p> <p>Response: February 22, 2013 Dear Mr. Klein,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development</p>



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	Date & Subject	Name	Comment
17.	February 21, 2013 Blake ROW, Helenius Greenway, Ice Age Tonquin Trail	Marty Campbell	<p>-----Original Message----- From: Marty Campbell [mailto:marty.campbell@comcast.net] Sent: Wednesday, February 20, 2013 10:04 PM To: Paul Hennon Subject: FW:</p> <p>Hi Paul, Please see the note that we sent Joelle below. Jenn and I want to double make sure that Blake is protected Greenspace still slated for potential bike path? The testimony given has us alerted to potential feeder streets being promoted again through our neighborhood. We would also like to schedule a time to discuss the next steps since we haven't heard much from anyone since the funding denial. Thanks Paul for your information.</p> <p>Marty and Jenn</p> <p>-----Original Message----- From: Marty Campbell [mailto:marty.campbell@comcast.net] Sent: Wednesday, February 20, 2013 9:30 PM To: 'Joelle Davis' Cc: 'jmakarowsky@comcast.net'; 'Jennifer Pitt'; 'Madi Campbell' Subject:</p> <p>Hi Joelle,</p> <p>Jen Pitt and I have been monitoring via satellite the council meetings and I viewed Monday the 11th's council meeting today. I have been to the CIO meetings but missed the last one. Mr. Kellogg spoke on behalf of our CIO neighborhood stating we need a East/West connector to aide those who need to get to the Southwest Corridor. This idea that Mr. Kellogg presented, as far as we are aware, was never approved by our neighborhood or the CIO. We object strongly to Mr. Kellogg's interpretation of the transportation (R29) needs of this neighborhood to that area. We are aware of the 124th street project that Jen Pitt is highly involved in. The Plan shows that Blake and Helenius are not on the plan but Tonquin is. Can you verify that please?</p> <p>What do we need to do to ensure these two streets stay off of the plan as we worked hard to ensure no feeder streets enter our area. Our CIO goal was not to increase traffic through neighborhoods but create a better quality of life for our residents. Putting cars, trucks and hundreds of people from Sherwood, Wilsonville, Tigard, etc. will only create hazardous living conditions. We were taken back and surprised by the testimony of Mr. Kellogg given after all the work we have done to ensure our neighborhoods safety, house equity, and quality of life. Hope you are doing well Joelle and please let us know your thoughts.</p> <p>Marty Campbell and Jenn Pitt</p> <p style="text-align: right;">Continued on next page</p>



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	Date & Subject	Name	Comment
17. Continued	February 21, 2013 Blake ROW, Helenius Greenway, Ice Age Tonquin Trail	Marty Campbell	<p>Response: February 21, 2013</p> <p>Hi Marty and Jenn,</p> <p>I am going to answer questions regarding the Blake right-of-way, Helenius Greenway, and connections to the Ice Age Tonquin Trail. I am forwarding your email to both Aquilla Hurd-Ravich, Planning Manager, and Kaaren Hofmann, Engineering Manager, and they can chime in about the connections to the Ice Age Tonquin Trail, Tonquin Road, and other the Ibach CIO.</p> <p>First, there is no change in the use of the Blake Street right-of-way. It continues to be shown as a multi-use path without a crossing of the railroad.</p> <p>There are two places to verify this: (1) in the February 25 Council meeting staff report that continues the public hearing on the Transportation System Plan Update (Agenda item F1), and (2) in the staff report with that recommends adoption of an ordinance that places the TSP into the Tualatin Development code (Agenda item H1). The attached Figures 11-1: Functional Classification and Traffic Signal Plan and 11-4: Bicycle and Pedestrian Plan, are in both the staff reports and show that there is not a street in the Blake right-of-way and that the Helenius Greenway multi-use path does not cross the railroad tracks.</p> <p>However, you will see on Figure 11-4: Bicycle and Pedestrian Plan, that there are two dashed green lines crossing the railroad tracks. These are the symbol for a Future Pedestrian Path. I understand that the dashed green lines on Figure 11-4 were originally added through public feedback at the Working Groups part of the public involvement process and they are shown as yellow lines on Figure 7 Bicycle and Pedestrian Element of the TSP update (attached) since they were requested and there was no opposition, and now the Ibach CIO has reinforced its support of at least one of them connecting with the Ibach CIO. Prior to the Ibach CIO request being received by Aquilla or Kaaren, I received the attached request for information from Robert Kellogg and I provided the information noted in the email regarding the Helenius Greenway and the plan being not to cross at the Helenius Greenway. The pedestrian connections (dashed green lines on Figure 11-4 are described in the Revised TSP Plan Update (February 2013) on Table 13, Project ID no. BP12.</p> <p>The revised TSP document is also available on the city's web site under the February 25 Council Meeting date. My understanding is that the lines are conceptual in that they do not identify a precise location, but express desire to cross somewhere - though no work has been done to validate the feasibility of crossing the tracks and/or the wetland pond in response to this request.</p> <p>When we looked at the question of crossing the tracks to connect with your neighborhood as part of the Ice Age Tonquin Trail Master Plan, we did not see any options other than the old Blake Street right-of-way due to the wetlands, topography, and homes, and we did not recommend any crossings based on the feedback received when we were doing the Helenius Greenway Master Plan at the same time.</p> <p>The TSP identifies the Ice Age Tonquin Trail as a future project, but alignment of the route is not shown on Figure 11-4 because it was not approved prior to the TSP moving forward for its approval and adoption. The intention is that the Council will approve the Ice Age Tonquin Trail Master Plan and follow up with incorporation into the TSP in the near future. You may wish to attend the Council meeting on the 25th during the Agenda item F1 discussion (on the TSP) to express your opinion about the Ice Age Tonquin Trail and its connections with or route through your neighborhood.</p> <p style="text-align: center;">Continued on next page</p>



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	Date & Subject	Name	Comment
17. Continued	February 21, 2013 Blake ROW, Helenius Greenway, Ice Age Tonquin Trail	Marty Campbell	<p>A legal representative of some property owners in the SW Concept Area (the Tonquin Industrial Group) just a day or two ago saw the dashed green lines on Figure 11-4 and has suggested that the Ice Age Tonquin Trail cross over into the neighborhood rather than being routed through the Tonquin Industrial Group - even though the route is proposed in that area on property owned by willing sellers, in existing right-of-way, and consistent with a trail already on the SW Concept Plan map.</p> <p>Regarding the Ice Age Tonquin Trail Master Plan, the Council will consider approving it next Monday night, February 25, with consideration of it following the TSP agenda items. You may wish to attend the Council meeting on the 25th to express your opinion about the Ice Age Tonquin Trail and its connections (or not) to your neighborhood.</p> <p>Kaaren or Aquilla will be responding to your other questions. Please let me know if I can be of further assistance.</p> <p>Paul Hennon Community Services Director City of Tualatin Community Services 18880 SW Martinazzi Avenue Located at 8515 SW Tualatin Road Tualatin, OR 97062-7092 503.691.3060 phennon@ci.tualatin.or.us</p> <p>This response had several attachments – that are not included here for brevity.</p> <p>Additional Response: February 22, 2013 Marty-</p> <p>As Paul noted, there are a couple of dashed lines on the Bicycle and Pedestrian map that note connections to the Tonquin Trail. They are not in any specific location and no work has been done to determine feasibility of construction.</p> <p>There is no vehicular connection from the Ibach CIO neighborhood to 124th Avenue in the TSP. Robert Kellogg, as President of the Ibach CIO, requested a project be added that proposed that connection. Staff has not supported that request to the City Council.</p> <p>Let me know if I can answer anything else for you. The Council will hear the TSP again Monday night at 7 pm if you are interested in attending.</p> <p>Have a good weekend.</p> <p>Kaaren Hofmann, PE Engineering Manager City of Tualatin Community Development 503-691-3034 www.ci.tualatin.or.us</p>



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	Date & Subject	Name	Comment
20.	February 21, 2013 Approve TSP as proposed	Carl Townsend	<p>Please approve the TSP. Vote NO to further discussion and analysis of the Hall Street and Tualatin Road extensions. The community process of the TSP Update has rejected these 2 roads. Further discussion or analysis after this lengthy public process is a waste of time, money, and resources. These two roads have significant negative impacts on our neighborhoods, our downtown, and our community-outweighing perceived benefits. It is reported to me that at least one of the Councilors receiving this message is receiving calls from Chamber members and businesses in support of these two roads.</p> <p>There seems to be continual planning and investment in creating roads that would destroy the value of Tualatin Parks. The city charter has been modified by the vote of the people to protect the parks from such projects. You should not be doing any planning or investing in any programs that would violate this, otherwise you are throwing taxpayer money away and risking legal action.</p> <p><i>Carl Townsend</i></p> <p>Response: February 22, 2013 Dear Mr. Townsend,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development</p>



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	Date & Subject	Name	Comment
21.	February 22, 2013 Approve TSP as proposed	Karla Doering	<p>Issue 1: Voting down the TSP as written ignores the Process that was established with the sanction of the Council and diminishes the belief that the public has a valid role in Tualatin's future.</p> <p>The current version of the TSP is distilled from hundreds of citizens, business representatives, and civic leaders who contributed time, effort, comments, and suggestions regarding values identified and sanctioned at the start of the process, believing that the stated public process meant something to city leadership. My greatest concern about the upcoming vote has little to do with the options that were discarded or kept in the current plan.</p> <p>As a Tualatin resident, my concern focuses on the message that this vote sends to the citizens of Tualatin. A vote against the current plan reinforces the idea that the public are given involvement in civic processes as lip service. Our CIO officers and the concerned public are looking at this vote for affirmation that when they commit to a multi-year effort, because they are told that the public process will be transparent, honest, and listened to, that their efforts are not in vain. A vote against the current plan is a statement that processes such as this are only valid when the outcome aligns with more personal agendas of the Council members. Please send a clear message with your vote that the public process in Tualatin matters to its leadership. At a time when our CIOs are just developing, don't send the message that such efforts and consensus building are a waste of time and resources.</p> <p>Thank you for considering my email,</p> <p>Karla Doering- concerned Tualatin Resident</p> <p>Response: February 22, 2013 Dear Ms. Doering,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development</p>



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	Date & Subject	Name	Comment
22.	February 21, 2013 Tonquin Industrial Group	Wendie Kellington, representing TIG	<p>Dear Honorable Mayor and Members of the City Council,</p> <p>Attached are TIG's comments on the proposed TSP and IATT Master Plan. We have included attachments keyed to specific proposals to help show the issue – hopefully to make TIG's issues a bit clearer. We hope you will agree it is important to make some modest adjustments to protect the TIG RSIA and its integrity as a potential 50 acre industrial site per the city code and Metro plans. We note that we greatly appreciate Aquilla and her efforts to work through these issues. The city and its citizens are lucky to have such competent, courteous, planning staff. Thank you.</p> <p>Wendie L. Kellington Attorney at Law P.C. P.O. Box 159 Lake Oswego Or 97034 (503) 636-0069 office (503) 636-0102 fax wk@wkellington.com www.wkellington.com</p> <p>Request council make a motion to amend TSP p 71</p> <p>“(d) Tualatin-Sherwood Road to Tonquin: Between Tualatin-Sherwood Road and Tonquin Road <u>adequate</u> access to 124th Avenue <u>shall be provided to serve the SWCP RSIA, which includes the TIG area. Such access may include limited to street intersections at Blake Street and the unnamed east-west collector street, the 115th street extension in this area, and Tonquin Rd, to ensure adequate freight mobility for this SWCP RSIA. Depending on when this segment of 124th Avenue is constructed, a (possibly interim¹) While permanent SWCP RSIA access is being decided a temporary connection to the RSIA TIG area at Tonquin Road may also <u>will</u> be provided to maximize freight mobility in the TIG RSIA.”</u></p> <p>¹ Please do not refer to interim access because it is very expensive and restrictive; it does not serve goal of freight mobility:</p> <p>“TDC 75.090, Interim Access, is amended as follows: When a property abuts a freeway, expressway or arterial and a future street shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)on Map 75-1, or abuts or bisects the property, the City Engineer may approve an interim access on the arterial subject to the following conditions:</p> <p>“(1) The City Engineer finds that at the current time the construction of the new street shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)on Map 75-1 is impractical due to costs of right-of-way acquisition.</p> <p>“(2) The property owner receiving interim access dedicates the right-of-way for the new street as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3) on Map 75-1 if it would be on the property.</p> <p>“(3) At such time as the City Engineer finds that it is practical to construct a new street as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)on Map 75- 1, the property owner agrees to pay for or construct its fair share of the new street when it is practical.</p> <p>“(4) At such time as the new street as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)on Map 75-1 is constructed, the interim access shall be closed and no longer used. The cost of this closure shall be borne by the property owner.”</p>



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	Date & Subject	Name	Comment
22. Continued	February 21, 2013 Tonquin Industrial Group	Wendie Kellington, representing TIG	<p>Request council to make a motion to amend TSP to clarify that the Multi-Use Path shown on Fig 11-4 "Bicycle and Pedestrian Plan" in the BPA right of way is limited in its physical and regulatory scope:</p> <p>"The trail in the BPA right of way in the TIG RSIA is contemplated to be within the westernmost part of the BPA ROW – specifically west of the BPA towers. The trail is limited to this BOA ROW both physically and its regulatory effect is also so limited."²</p> <p>² This is consistent with the requirement in the Metro Functional Plan: 3.07.426(D)/1130(D): "Cities and counties <i>shall</i> review their land use regulations <i>and</i> revise them, if necessary, to prohibit the siting of schools, places of assembly larger than 20,000 square feet or parks intended to serve people other than those working or residing in the RSIA." (Emphasis supplied.) The trail is a place of assembly that is larger than 20,000 square feet and also would be considered a "linear park". It is clearly designed to serve a regional population – far greater than "those working or residing in the RSIA."</p> <p>Please consider a motion to amend TSP P 64 Proj. BP 18: to make clear the IATT is not fixed in the RSIA, and will not be, unless shown not to harm RSIA³:</p> <p><u>"Project BP18 Build the Segments of the Ice Age Tonquin Trail in the City: "The goal of the Ice Age Tonquin Trail is to have a north/south orientation through and adjacent to the areas of highest desirability for interpretation of the Ice Age Floods and the remaining natural and geological features. The exact alignment through or near the property held by the Tonquin Industrial Group land owners in the SW Concept Plan area has not been determined in the SWCP RSIA including the Tonquin Industrial Group area, where these features do not exist. In this area the trail may follow the railroad tracks or may skirt the SWCP TIG area by acquiring some the folks to the far north and then head west to connect to 124th or east to connect to the Ibach neighborhood, so to avoid the TIG RSIA employment area. The city acknowledges that Metro prefers that the IATT hug the railroad tracks, but this alignment will not be selected if it cannot be shown that it will not adversely affect the RISA including not adversely affect freight mobility, industrial buildable area, or current or future businesses land use status, or impose new setbacks. Moreover, that such an alignment must be shown that it can be safely established for both pedestrians and industrial traffic. The final trail alignment and design and construction details will all be developed in the undetermined future and the processes will be conducted with the participation of land owners, adjacent property owners, the general public and other stakeholders at such time that the area annexes or later."</u></p> <p>³ This is consistent with the requirement in the Metro Functional Plan: 3.07.426(D)/1130(D): "Cities and counties <i>shall</i> review their land use regulations <i>and</i> revise them, if necessary, to prohibit the siting of schools, places of assembly larger than 20,000 square feet or parks intended to serve people other than those working or residing in the RSIA." (Emphasis supplied.) The trail is a place of assembly that is larger than 20,000 square feet and also would be considered a "linear park". It is clearly designed to serve a regional population – far greater than "those working or residing in the RSIA."</p> <p style="text-align: right;">Continued on next page</p>



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	Date & Subject	Name	Comment
22. Continued	February 21, 2013 Tonquin Industrial Group	Wendie Kellington, representing TIG	<p>Response: February 22, 2013</p> <p>Dear Wendie,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Aquilla Hurd-Ravich, AICP Planning Manager Community Development Department</p>
23.	February 22, 2013 Ibach CIO Comments and Requests on Draft TSP	Robert Kellogg, representing Ibach CIO	<p>Kaaren-</p> <p>As we discussed at the Council meeting, please find attached letter to Council with a renewed request for adding certain "placeholder" language to Project R29 of the TSP regarding an evaluation of extending the proposed east-west connector in the SW Concept Plan area to the neighborhood(s) of the Ibach CIO.</p> <p>I look forward to seeing you at the Council meeting on the 25th.</p> <p>Best regards-</p> <p>Robert E. Kellogg President, Ibach CIO (971) 235-6908</p> <p>Response: /February 25, 2013</p> <p>Robert,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



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	Date & Subject	Name	Comment
24.	February 22, 2013 Approve TSP as proposed	Janice Dove	<p>TO: Members of Tualatin City Council RE: TSP</p> <p>I am writing to ask Council Members to vote to adopt the TSP Update as written and to reject the Mayor's proposal for further study. Please enter this note as testimony into the record for the meeting discussion.</p> <p>As you are aware, the nearly 1 ½ year long community wide process to draft Tualatin's transportation plan was one of consensus. The Update plan was approved by the TSP Task Force, by TPARK, and by Tualatin's Planning Commission. The City Council voted to exclude the Hall Street extension from the Update, and the consensus of both the work groups and the Task Force was to exclude the expressway over our Community Park. Further, TPARK voted against the expressway over our Community Park.</p> <p>I support an open, transparent process of broad citizen and business participation in decision making for our City. Many concerned citizens and businesses participated in an effort to develop the Updated Plan with good faith in the process the City Council designed and supported. It has been assumed and expected that the results from this process would be honored by City Council. Tualatin wants public participation in decision making not power politics and backroom dealing.</p> <p>If Council votes to adopt the TSP Update, but then votes to accept Mayor Ogden's proposal for further study of these two harmful expressways, this is a repudiation of the public process which has taken place and a vote against citizen involvement. Please do not let this happen. Citizens want to have confidence in their elected officials to represent the desires of the community.</p> <p>Thank you for voting to adopt the TSP Update as written and to reject the Mayor's proposal for further study.</p> <p>Janice Dove Tualatin Resident</p> <p>Response: February 25, 2013</p> <p>Janice-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



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	Date & Subject	Name	Comment
25.	February 23, 2013 Approve TSP as proposed	Bob Killough & Nancy Brown	<p>Tualatin Council,</p> <p>We respectfully request that you approve the Transportation System Plan without the bridge across the Tualatin River.</p> <p>We do not believe that a bridge or new road next to Tualatin Community Park and through the Cook Park Wetland is in the best interests of the community or the fragile environment.</p> <p>We also do not support new engineering studies and request that no public funds or other resources be used for that purpose.</p> <p>The bridge and roads would have serious environmental impacts and would exacerbate traffic problems on Tualatin-Sherwood Road.</p> <p>Please approve the TSP as it stands without a bridge and without new roads.</p> <p>Sincerely,</p> <p>Bob Killough Nancy Brown Tualatin</p> <p>Response: February 25, 2013 Dear Bob and Nancy</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Sincerely,</p> <p>Ben Bryant Management Analyst</p>



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	Date & Subject	Name	Comment
26.	February 23, 2013 Approve TSP as proposed; Environmental Effects	Chad Darby	<p>First, let me thank you for reading this. I know you have received a tremendous amount of input on the TSP.</p> <p>I have raised my two kids here in Tualatin and I have coached both softball and soccer in our area parks. So I know quite a bit about how our parks are used and the types of athletic activities in them. I am also a Senior Air Quality Consultant with 21 years of experience and degrees in both physics and mechanical engineering. I have worked on a number of industrial projects that have looked at the impact of diesel exhaust sources on public health, including diesel truck exhaust. In 2005, the California Environmental Protection Agency drafted a groundbreaking land use handbook titled, "Air Quality and Land Use Handbook: A Community Health Perspective," which I have attached. This document was written to protect sensitive populations from the effects of the air pollution sources that are the most concerning.</p> <p>The handbook states:</p> <p>"Recent air pollution studied have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that <u>diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible from much of the overall cancer risk from airborne toxics in California</u>"</p> <p>"Protecting California's communities and our children from the health effects of air pollution is one of the most fundamental goals of state and local air pollution control programs. <u>Our focus on children reflects their special vulnerability to the health impacts of air pollution.</u> Other vulnerable populations include the elderly, pregnant women, and those with serious health problems..."</p> <p>"Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e. <u>children</u>, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, <u>parks and playgrounds</u>, daycare centers, nursing homes, hospitals, and residential communities."</p> <p>As I stated, this handbook was ground-breaking. Since 2005, however, the states of Oregon and Washington, the US Environmental Protection Agency, and the World Health Organization have all declared diesel exhaust to be correlated with an increased risk of cancer. Risk factors are now commonly used to quantify the excess cancer risk to individuals. While children today may expect up to a 1 in 2 chance of developing some form of cancer in their lifetime, any added exposure to cancer causing pollutants is added to this, which is what "excess cancer risk" means. It's the increase in cancer risk above background.</p> <p>Businesses in Tualatin want you to vote down the TSP because they want more study of the roads through Community Park, referred to as the Hall Street Extension and the Lower Boones Ferry Bridge over the park. The hope is that roads through this area would decrease time spent in traffic for their trucks, diesel trucks. By routing these through the Community Park they would shave off minutes from their drives, but in exchange the children of Tualatin would be exposed to a higher risk of cancer. How many of us would prefer to have 5 minutes less on our commute? But would we do it in exchange for compromising our children's health? How cheaply do we hold the health of our community that we would trade our children's futures for the interests of business? Wade Brooksby pointed out that arterial roads should go around Tualatin, not through it. I agree with Wade. I can think of no more compelling reason than the safety of the most vulnerable of our population, our children and our elderly.</p> <p style="text-align: right;">Continued on next page</p>



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	Date & Subject	Name	Comment
27. Continued	February 23, 2013 Approve TSP as proposed; Environmental Effects	Chad Darby	<p>We know that the roads through the Park would be intended targets for business shipping. How? Because the Chamber of Commerce and area businesses are trying very hard to convince you to vote down the TSP because these two roads are absent from the Plan. I find it disingenuous, and I hope you do too, that businesses would state that they want to be strong community partners and want quality of life for Tualatin citizens at the same time they are asking the public to consider giving up a foundational park system. I don't believe businesses understand that they would expose children to higher levels of cancer causing exhaust, but in effect, that's what their request would do.</p> <p>A vote for the TSP as currently written is a vote to save our children from additional risk of cancer and respiratory effects. Children deserve safe and healthy places to play. As civic leaders I ask you to support the TSP for the sake of our children's health in a time when lung cancer accounts for twice as many deaths as the next leading cancer. However, if you do vote against the TSP in support of greater study for the roads through the Park, then we should study all aspects of these roads. I would call for a full Human Health Risk Assessment to be conducted to determine the increase in cancer risk to park visitors. This will cost \$50,000-100,000 more on top of the traffic studies. Based on my years of experience I can assure you it will show a quantified increase in cancer risk. The next decision to be made will be whether we potentially trade our children's futures for business interests. Please vote to do what's right. Vote "Yes" for the TSP.</p> <p>Chad Darby</p> <p>This email included the following attachment: <u>Air Quality and Land Use Handbook: A Community Health Perspective</u></p> <p>Response: February 25, 2013</p> <p>Mr. Darby</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



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	Date & Subject	Name	Comment
28.	February 23, 2013 Focus on relieving Tualatin/Sherwood/Road congestion by an E/W bus loop	Kathy Newcomb	<p style="text-align: center;">To the Council: During the Monday night hearing February 25, you will be giving further consideration to the draft Transportation System Plan.</p> <p>Please do not give the Hall Street Extension or the Bridge over the Park further consideration. Both would add a great deal of vehicle congestion to Tualatin's main streets. In addition, the Bridge over the Park would undoubtedly cause asthma, from heavy vehicle pollution in the park. I expect the city would be held liable for such illness.</p> <p style="text-align: center;">Instead, we -- residents and businesses -- urgently need you to focus on the high-priority need to reduce traffic congestion on Tualatin/Sherwood Road. Begin with an east/west bus loop around the Leveton business area with an accompanying Park and Ride. Start with commute hours. For details, see the "Citizen's View" below from the Times last Thursday -- especially the paragraphs in bold on page 2.</p> <p style="text-align: center;">Sincerely, Kathy Newcomb (503-692-5227 after 10 a.m.)</p> <p style="text-align: center;">*****</p> <p style="text-align: center;">The Times: Thursday, February 21, 2013</p> <p style="text-align: center;">It's time to focus on east/west connections CITIZEN'S VIEW by Kathy Newcomb</p> <p>For a year, many of us citizens have been working on the issue of transportation in Tualatin. Our work backs up the draft Transportation System Plan. Mysteriously, two rejected issues are coming up again, perhaps in the city council's February 25 meeting.</p> <p>One is the Hall Street Extension, and the other is the "Bridge over the Park" under an outdated name -- the "Lower Boones Ferry Road Bridge". Both have been rejected for many reasons. And yet there are people such as the mayor and some members of the Tualatin Chamber of Commerce supporting reconsideration of these projects..</p> <p>There are three major issues here. First, why don't we want the Hall Street Extension? Second: Why don't we want the Lower Boones Ferry Road Bridge? And third: What do we want instead?</p> <p>First: What does the Hall Street Extension consist of? It is basically a continuation of Hall Boulevard, coming south over a Tigard wetland and the Tualatin River, through Tualatin alongside the railroad by the dog park, etc., then along Boones Ferry Road, continuing south to Wilsonville. This road would provide a new throughway from Cedar Hills Boulevard in Beaverton, south through Tualatin all the way to Wilsonville. It would add substantial congestion to Boones Ferry Road through Tualatin's downtown. It would certainly also add congestion to Tualatin's south residential areas along Boones Ferry Road.</p> <p>And, as Tualatin's knowledgeable Jan Giunta was the first to point out, the Hall Street Extension would directly parallel the WES light rail. WES was completed north/south through Tualatin in recent years at great expense. We don't need both.</p> <p>Second: I wondered what on earth is the "Lower Boones Ferry Road Bridge"? I learned it is the mayor's out-of-date name for the "Bridge over the Park." Yes, it is the same bridge proposed over Tualatin Community Park! In 2009 it was called the "Northern Arterial" (\$95 million). And then it was Tualatin's Project I0731 (\$47.5 million).</p> <p style="text-align: center;">Continued on next page</p>



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	Date & Subject	Name	Comment
28. Continued	February 23, 2013 Focus on relieving Tualatin/Sherwood/Road congestion by an E/W bus loop	Kathy Newcomb	<p>We have fought hard to protect Tualatin's parks against this monstrosity. Remember, as estimated by Metro, the "Bridge over the Park" would have brought 3000 vehicles over the park in the two-hour evening rush hour period, going west. This was not what we wanted over our playing fields and picnic areas. It was not a good reason to cut down 100-year-old historic trees. I am so happy we citizens have achieved at least some protection against such a plan: Thanks to the voters, our initiative is firmly in the city charter, helping protect our parks since March 2010.</p> <p>Third: What do we need instead? We probably all agree that our greatest traffic congestion priority is to reduce traffic congestion on Tualatin/Sherwood Road.</p> <ul style="list-style-type: none"> · What is the first goal? To reduce the number of single-occupancy-vehicles on Tualatin/Sherwood Road, focusing first on commute hours. The Chamber's studies have advised us that we should aim for a reduction of 5% of those SOVs. · How do we manage that? We land-bank space for a Park and Ride on 99W, or at least on 124th. Then we design an east-west loop bus route on 124th, Tualatin/Sherwood Road, Boones Ferry Road, and Tualatin Road. This would circle around the Leveton industrial area -- which is only about 65% full at present. <p>Did you know we are the only city from Portland to Sherwood without one or more Park and Rides on 99W? Did you know Tualatin has no east/west public transit – just north-south lines?</p> <p>Finally, did you know that our city of 26,000 employs 21,000 people? And that 90% of these people come from outside Tualatin? We are years out of date in dealing with our commute-hour traffic problems.</p> <p>It is time to start now – not with out-of-date and incredibly bad plans to add more congestion to our main streets. It is time to focus on east/west public transit – with a matching Park and Ride -- to encourage as many commuters as possible out of their single-occupancy-vehicles and into public transit.</p> <p>Kathy Newcomb is a Tualatin resident and a member of Riverpark Citizen Involvement Organization 1. She is also a retired CPA and state auditor.</p> <p>Response: February 25, 2013</p> <p>Kathy,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



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	Date & Subject	Name	Comment
29.	February 23, 2013 Approve TSP as proposed/No Hall Street Bridge	Toni Anderson	<p>Dear City Council and City Engineer Kaaren Hofmann et al:</p> <p>The following is my public comment on the TSP Update Plan scheduled for approval February 25 at City Council. Approve it. Doing so will validate that the City has really changed its tune about citizen involvement and that citizen involvement is not just words.</p> <p>I understand that the Tualatin Chamber doesn't think the Plan will support business development and needs more roads. They are wrong. This TSP plan meets all of the Plan Text Amendment Criterion including Section 11.610 Transportation Goals and Objectives which requires it to meet Metro's 2035 growth projects. CH2M Hill must think the Chamber is goofy when they had a representative on the Transportation Task Force and then turn out to oppose the resulting plan.</p> <p>The Chamber wants us to also ignore the fact that the Task Force had multiple business representatives. The only reason they are saying it is because the Mayor wants us to bring back two roadway projects that ruin Tualatin Community Park to "analyze". Never mind one of these projects, SW Lower Boones Ferry Extension (previously known as Tualatin Road Extension) was rejected unanimously by the Task Force on April 19. That was reported at the April 23, 2012, City Council Worksession. Never mind the other project, Hall Street Extension, was rejected by the City Council on September 10, 2012, after a divided Task Force vote.</p> <p>My question is: Who wants us to spend more taxpayer money to advance roads the citizens do not want? We have already overspent the budget to do "travel time" analysis for the Mayor in October that no one else wanted but he insisted he needed it. That cost of \$35,000 was on top the original budget of over \$300,000. Now he wants to do more analysis to keep the hope alive that he can pave over our parks. What will that cost us taxpayers? \$100,000, \$200,000, or more?</p> <p>Stop spending taxpayer money to analyze roads that will and should never be built. The excuse of congestion will not be solved by these two roads since congestion starts at and ends at I-5, Highway 217, and US 26. It is like trying to plug a giant leak with a small wad of gum. It might be satisfying to say you've done something but at the end, congestion on these major roadways such as I-5 will not be solved by paving over a park.</p> <p>Here is what we see: because the Mayor didn't get what he wanted, he and industry lobbyist Larry Harvey are apparently telling businesses that the plan won't support economic development or population growth. They are denying the engineering and Metro standards. They convinced the Chamber that we won't have adequate roads for the Basalt Creek Development. They forgot about the \$220+ million in Washington County's Basalt Creek transportation plan. This plan includes an expressway that is supposed to carry 10 times the load of Tualatin-Sherwood Road. They forgot about it because it negates their argument. They also are ignoring the roads in the TSP plan which will have a significant impact on traffic flow including 124th extension. They are also ignoring the funded \$30+ million of improvements to Durham Road which will help attract regional traffic going to and from I-5 and Sherwood/Newburg. Why are they ignoring these facts? Because they want these roads, no matter what and will say nearly anything to hijack the process and take it out of the residents hands.</p> <p style="text-align: right;">Continued on next page</p>



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	Date & Subject	Name	Comment
29. Continued	February 23, 2013 Approve TSP as proposed/No Hall Street Bridge	Toni Anderson	<p>The TSP opponents either do not understand the plan or they are so set on attacking it that ignoring facts is the only way they can cope. The business members who testified on February 11, I am sure were well meaning, but they were the ones who were outvoted by the citizens or voted with the residents and now, after being hammered by Harvey or the Mayor, are saying they didn't mean to vote with residents. Regardless of their reasons, please do not allow them to float misleading information, to ignore the entire regional of roads, or to attack the engineering behind the plan. CH2M Hill knows what they are doing. They know a great deal more than business people jacked up by a lobbyist with inaccurate statements and promises.</p> <p>Response: February 25, 2013</p> <p>Toni-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



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	Date & Subject	Name	Comment
30.	February 24, 2013 Approve TSP as proposed	Sharon Scott	<p>Dear Karen and the Council,</p> <p>I recently read a quote in the Portland Tribune that was attributed to the Mayor of Tualatin. In part it states, <i>"We are taking two major projects off the TSP without knowing what impact that has to travel times. I have a serious problem with that. If we study the bridges and conclude they don't help, I'm in favor of taking them off."</i></p> <p>Personally, as a Tualatin resident, I am shocked the Mayor has made this statement. First, the plan was built using the full build growth assumptions required by Metro. This means that the roads in the plan are adequate and what he is proposing goes beyond Metro requirements. Apparently, he has no confidence in the engineering and modeling behind the plan. Second, his opinion presumes that traffic congestion is an overarching issue for Tualatin. Access and mobility are certainly an important issue, but they were <u>not the only</u> issues that were stated and sanctioned by the City Council at the start of this public process. The issues included:</p> <ul style="list-style-type: none"> • Access and mobility • Vibrant Community • Equity • Economy • Health/Environment • Ability to be implemented <p>The TSP process weighed concerns, some would say exhaustingly, about issues that were both personal and public. People commented about congestion, but they also commented on environmental impacts, likely costs, and needs for parks in order to have vibrant communities. Congestion doesn't necessarily trump the other issues. And in this case it didn't. The consensus has arrived at a balanced approach. The two roads that the mayor has spotlighted failed catastrophically on several criteria:</p> <ul style="list-style-type: none"> • Vibrant community- can such a community be fostered by carving up the public spaces where families come together for community-building interaction? Can it be vibrant if children aren't provided with places to play that are not altered by traffic noise and exhaust fumes? Vibrant communities are fostered by clean, healthy places to gather without the intrusion of transportation issues. <u>So on this criteria it failed.</u> • Equity- Is it equitable for businesses to demand that public spaces be carved up for transportation routes. It's very disingenuous for businesses to say that they want quality of life for Tualatin citizens, but demand that roads be placed in areas that are already in the public trust. Would they like us to turn their parking lots into playgrounds and disrupt their businesses? No, that would not be equitable. And it is not equitable for them to demand roads that impact the public spaces either. <u>So on this criteria it failed.</u> • Health/Environment- a road through the park would destroy wetland areas and expose the public to diesel exhaust fumes from trucks that would use the road through the park as an arterial route. In fact, businesses are already before the Council demanding it. Not only would the environment be compromised by more impervious surface next to the river and wetlands that would be filled in, but the health of the public would be affected. The World Health Organization, the U.S. Environmental Protection Agency, and the States of Washington, Oregon, and California all now recognized diesel exhaust as a human cancer-causing compound. As such, states are now recommending that sensitive uses such as arterial roadways not be located near areas of the sensitive public. California specifically mentions parks as a sensitive area because children and elderly, who are more susceptible to the effects of pollution, are likely to be found there. In addition to increasing cancer risk, diesel particulate also is known to exacerbate conditions such as asthma and bronchitis. <u>So on this criteria it failed.</u>

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	Date & Subject	Name	Comment
30. Continued	February 24, 2013 Approve TSP as proposed	Sharon Scott	<ul style="list-style-type: none"> • Ability to be implemented- The cost of these roads due to the environmental and structural challenges are enormous. The ability to be implemented is highly unlikely given the built environment. <u>So on this criteria it failed.</u> • <p>The point of this discussion is not to rehash all of the arguments for and against the roads through the park, but to point out that the public, business leaders, and civic leaders weighed many criteria and arrived at one conclusion: that no matter what impact these roads would have on traffic access and mobility, that these options fail catastrophically on the majority of the remaining criteria and should therefore, not move forward in the dialogue and planning.</p> <p>The mayor may believe that the only objective of the TSP was to address congestion and satisfy business interests, but those were not the only criteria. I applaud the consensus decision to remove these roads because further study would likely cost \$200,000 and the outcome would not matter. The mayor's comment suggests that we should throw more taxpayer money at these potential options, but the consensus has wisely decided to save taxpayer money for projects where it matters most. Other regional models suggest that these roads are not needed.</p> <p>I ask the City Council to support the Community Based TSP and reject any motion to further analyze these roads.</p> <p>Sincerely, Sharon Scott</p> <p>Response: February 25, 2013</p> <p>Sharon-</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>
31.	February 24, 2013 Approve TSP as proposed	Ata Saedi	<p>Please support and approve the TSP update plan. Thank you for your service to our community. Regards, Ata Saedi 18397 SW 135th Ter, Tualatin</p> <p>Response: February 25, 2013</p> <p>Dear Mr. Saedi,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
32.	February 24, 2013 Approve TSP as proposed	Mike Riley	<p>Fellow Councilors,</p> <p>I received the email below from Mike Riley, our Planning Commission Chair, though I believe they are his thoughts alone, not the position of the Planning Commission. It is incredibly thoughtful, in typical Mike Riley form, and though it is even longer than something I might write (maybe), please read every word of it carefully as it is the most complete and cogent treatise on our present situation regarding the TSP.</p> <p>Thanks,</p> <p>Lou Ogden Resource Strategies Planning Group Group Benefits & Life, Health, Disability, & Long Term Care Insurance for Businesses and Individuals 21040 SW 90th Ave. Tualatin, OR 97062 Phone 503.692.0163; Fax 503.385.0320 lou@louogden.com</p> <hr/> <p>From: J. Michael Riley [mailto:jmyke2000@comcast.net] Sent: Sunday, February 24, 2013 10:58 AM To: lou ogden Subject: TSP Considerations</p> <p><i>Mayor Ogden and City Council:</i></p> <p><i>Cheryl Dorman and I have enjoyed participating in the TSP process, and have followed it together and compared notes for the last year. I understand Cheryl will be presenting her, and the Chamber of Commerce's view tomorrow at the City Council meeting. With her permission, I have forwarded to you my comments on this subject, below:</i></p> <p>Cheryl -</p> <p>I agree with you that the TSP as it now stands does not well reflect the business community of Tualatin's needs, hopes, or concerns.</p> <p>On the other hand, it was clear from the start that the City Manager's Office, the City Council and many "important" citizens had imposed another goal upon the TSP, along with its obvious goal of proposing a logical plan for correcting our community's traffic problems and creating a treasure map to guide us to Tualatin's future. That second objective was to be the test platform for a much more engaged and sensitive citizen involvement attitude and approach than had been recently demonstrated. In many ways, I feel that second objective took on at least as much importance as the first.</p> <p>Maybe in the moment of the initiation of the TSP effort, that was completely necessary. It certainly was accomplished. If I have a concern, it is that the principle objective of the TSP may have gotten lost in the shuffle, as you have so clearly expressed. As I mentioned to you last month, I'm afraid we missed this opportunity to address some of the pressing problems we have right now in Tualatin with traffic, not to mention some <i>specific needed projects</i> that were basically shouted down and defeated politically instead of being rationally addressed and analyzed, many of them involving bridges over the Tualatin River.</p>

Continued on next page



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
32. Continued	February 24, 2013 Approve TSP as proposed	Mike Riley	<p>As we have discussed, this may simply be the price to pay for the benefit of increased citizen involvement. The goal of citizen involvement, and therefore our expectation for it, has never been that it produces a better product, although it can be argued, by those whose voices were heard, that it does. The goal was community <i>acceptance</i> of the process and the decisions of their government, due to a sense of truly being heard and respected during the process.</p> <p>I agree in general with your observation that a relatively small group of citizens dominated the meetings during the TSP process. This was in part a function of scheduling most of the meetings during the day, although all the formal Task Force meetings were scheduled with the working person in mind. I have two reflections on this.</p> <p>One, if a citizen agrees to take on a role such as being a Task Force member, that entails several obligations:</p> <ul style="list-style-type: none">a) Show upb) Speak upc) Be stalwart in your role as the representative of the group you are there for <p>To be sure, item "a" could have been enhanced with scheduling of small-group meetings more sensitively to the schedules of business-people and salaried workers. Nevertheless, there were plenty of instances when neither a TSP member or their alternative was in attendance to represent some faction at the Task Force meetings, and therefore their opinions were not heard. There's no fault to be found there, except for those folks themselves, if their needs are not met by the TSP that results.</p> <p>Even though the meetings were reasonably comfortable for the stage-shy, there were nevertheless TSP task force members whose voices were simply never heard (item "b"). Again, if this is the case, one should find another representative who is willing and able to speak out if necessary. Silence is interpreted as assent.</p> <p>But, most important, I think item "c" must be adhered to; the volume and forcefulness of others cannot deter you if their point of view is at odds with yours. These are the times when the dissenting voice is most needed, and in fact, are the very reason that community involvement has become such a priority. It is clear that in the past, this is exactly what has not happened, and folks have resented it. It is not fair to be overly critical of the process, however, if the opportunity to speak up was afforded and not taken.</p> <p>Which brings me to my second point:</p> <p>It is true that there is a coterie of neighbors who have the time, interest, and will to show up whenever their interests are at stake. I also agree that this group dominated many of the small-group meetings which I attended during the TSP.</p> <p>I can hardly be a supporter of citizen involvement, however, and also be critical of those citizens who take the opportunity to be involved and use it effectively. What is missing is a matter of participation and control.</p> <p>Participation: As I mentioned above, groups other than that group who I think of as "those who show up" must be similarly well-organized and similarly well-spoken representatives of their own self-interests. This is simple grass-roots politics. Clearly, this could have been facilitated better by better scheduling of the meetings to a working-person's schedule, but the process was long enough that this issue could have been raised and responded to early in the calendar.</p>

Continued on next page



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
32. Continued	February 24, 2013 Approve TSP as proposed	Mike Riley	<p>Control: The meeting managers must certainly have been aware of the dominance of certain voices (I know I was asked to let someone else speak from time to time!) The structure of the meetings might have been more conducive to participation by the silent task-force members if the format had been changed, and if the moderators had been more assertive about prompting non-participants to do a better job of presenting their constituency's point of view.</p> <p>The TSP is traditionally not a visioning process so much as an engineering implementation process. The task of visualizing our community's future is seldom best vested in the management of various kinds of traffic, but usually delegated to a group with broader interests like Tualatin Tomorrow and the planning staff and consultants. Nevertheless, this iteration of the Tualatin TSP was devoted largely to exactly the job of visualizing our community's future. It is in that way that I think the process may have fallen short for the reasons discussed above. We may have thrown the baby out with the bath-water by keeping the vision of a narrow section of our population and not adequately addressing the very engineering concerns that have traditionally been the TSP's exclusive realm.</p> <p>However (whew!), <i>I would discourage a vote against the TSP as it stands (or rather encourage a vote for it)</i>, if only because a good-faith effort has been made by the City Council and staff to implement the process in such a way as to more directly involve the "average Tualatin citizen." This strong response to recent disquiet between citizen groups and the Council was made at some expense and with the best of intentions. I'm afraid a "NO" vote by Council at this stage would be seen as a vote against this process and the very notion of greater citizen involvement, instead of as simple dissatisfaction with the result as intended. This would be a substantial loss for all the progress we have made on this front.</p> <p>I would remind everyone that the TSP is a <i>plan</i>, not the actual traffic facilities of our town. It is subject to revision, amendment, and further study, not to mention unforeseen changes in our energy and transportation technologies and the inevitable changes which arise in the detailed design and construction processes. If voices silent until now are forcefully heard in the open forum of Council meetings, their needs can yet be accounted for during those subsequent stages.</p> <p>Also, this is the first major effort in the renewed campaign by our City government to be more responsive to our citizens' voices. The Council, City staff, and consultants working on the project should be applauded for their efforts. But they and we are still learning how to do this. I think we all hope the process will evolve to be more effective, more representative, and more natural to all of us in future similar endeavors.</p> <p>Yours truly and at length,</p> <p>Mike Riley</p> <p>Response:</p> <p>No response required.</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
33.	February 25, 2013 Approve TSP as proposed	Richard Hager	<p>Hi Kaaren and Council members; Nice talking with you a bit ago Kaaren, and thanks for taking the time to call me back, (on what must be a very busy day for you). I am glad we had that moment to talk, and also that you confirmed that as of about 10 minutes from right now (noon today), ...it will be too late to submit written comments into the record. As I mentioned, after 28 years of being VERY involved in this City, I am trying to cut back on my involvements. But, I have been following this very public and open process on the TSP for about a year now. As I mentioned, I am aware of the reviews and recommendations of the Official Task Fork, working groups, as well as reviews done by T-PARK and T-PAC. There may be others I'm not aware of. There has been a consistent position taken by each of those efforts, which can be summarized quite simply...</p> <ol style="list-style-type: none">1. The TSP needs to be approved!! ...and that2. There should NOT be any further study undertaken on EITHER the Hall street extension OR the BRIDGE CROSSING over our Community Park. <p>To keep it simple, I testify that I am in complete agreement with both of those positions. It's time to honor this very extensive and completely open process, ...which has had maximum public input. Lets put this to bed! Please Councilors, have the strength of your convictions to vote as indicated on the above items, listed as #1 and #2. BOTH votes are very important for the benefit of Tualatin, where I have lived for 37 years!!</p> <p>All the Best to each of you, Richard Hager</p> <p>Response: February 25, 2013</p> <p>Dear Mr. Hager,</p> <p>Thank you for your comments about the Tualatin Transportation System Plan. Your input, along with the feedback received from others, will be provided to the Tualatin City Council in preparation for the February 25th public hearing. Thanks again for taking the time to make your voice heard.</p> <p>Kaaren Hofmann, PE Engineering Manager</p>



TSP Public Comment Log from February 12-25, 2013

	Date & Subject	Name	Comment
34.	February 25, 2013 Approve TSP as proposed	Elizabeth Piazza	<p>To Honorable Members of the City Council</p> <p>Ladies and Gentlemen:</p> <p>I want to encourage you to vote for the TSP. I just left a friend of mine who is a member of the chamber of commerce. I've done business with his bank for many years. He is upset (and so am I) that someone from the chamber told you that they want you to spend more money on two roads that should never be built - those roads going through Tualatin Community Park.</p> <p>He told me that no one asked him what he thought the chamber's position should be and that they usually don't ask. He doesn't agree. I think you should know this.</p> <p>I also think it is terrible that the chamber is going against the residents. What is wrong with them?</p> <p>We are residents of Tualatin and love living here. Our grown children live here. Their kids attend Tualatin public schools. We want to save our neighborhoods and our parks.</p> <p>Please stand up for us.</p> <p>Thank you,</p> <p>Elizabeth Piazza Tualatin Resident</p>



City of Tualatin

AFFIDAVIT OF POSTING

STATE OF OREGON)
) SS
COUNTY OF WASHINGTON)

I, Lynette Sanford, being first duly sworn, depose and say:

That at the request of Sherilyn Lombos, City Recorder for the City of Tualatin, Oregon; that I posted three copies of the Notice of Hearing on the 1 day of February 2013, a copy of which Notice is attached hereto; and that I posted said copies in three public and conspicuous places within the City, to wit:

1. City of Tualatin – Council Building
2. City of Tualatin – Development Services Building
3. City of Tualatin - Library

Dated this 1 day of February, 2013

Lynette Sanford
Lynette Sanford

Subscribed and sworn to before me this 5th day of February, 201~~2~~³.



Linda K. Odermott
Notary Public for Oregon

My Commission expires: March 30, 2013

RE: PLAN TEXT AMENDMENT (PTA) 12-02 PROPOSES TO ADOPT AN UPDATED MULTI-MODAL TRANSPORTATION SYSTEM PLAN BY AMENDING THE TUALATIN DEVELOPMENT CODE.



City of Tualatin

www.ci.tualatin.or.us

NOTICE OF HEARING CITY OF TUALATIN, OREGON

NOTICE IS HEREBY GIVEN that a public hearing will be held before the City of Tualatin City Council at 7:00 p.m., Monday, February 11, 2013 and Monday, February 25, 2013 at the Council Building, Tualatin City Center, at 18880 SW Martinazzi Avenue, to consider:

Plan Text Amendment (PTA) 12-02 proposes to adopt an updated multi-modal transportation system plan by amending the Tualatin Development Code.

Amendments are proposed to the following chapters:

**Chapter 1 Administrative Provisions;
Chapter 3 Technical Memoranda;
Chapter 11 Transportation;
Chapter 31 General Provisions;
Chapter 34 Special Regulations;
Chapter 38 Sign Regulations;
Chapter 71 Wetlands Protection District;
Chapter 73 Community Design Standards;
Chapter 74 Public Improvement Requirements; and
Chapter 75 Access Management on Arterial Streets**

Chapter 11 of the Tualatin Development Code contains the transportation system plan policies while all other chapters are companions amendments recommended to fully implement the planned transportation system (proposed Chapter 11). The draft Transportation System Plan and Appendices are proposed to be adopted by reference as Technical Memoranda. The PTA is a legislative process.

To grant the amendment, Council must find the proposal meets the criteria of Tualatin Development Code 1.032(1-10) relating to the public interest; timeliness; conformity with objectives of the Tualatin Community Plan; consideration of the factors listed in Section 1.032(4); the Tigard-Tualatin School District Facility Plan; the Statewide Planning Goals; the Metro Urban Growth Management Functional Plan; and impact on the transportation system.

You are invited to attend and participate in the public hearing. Failure to raise an issue at the hearing or in writing or to provide sufficient specificity to afford the Council an opportunity to respond to the issue precludes appeal to the Land Use Board of Appeals (LUBA). Copies of the application, all documents and evidence relied upon by the applicant and applicable criteria are available for inspection at no cost and will be provided at reasonable cost. A copy of the staff report will be available at no cost prior to the hearing.

Individuals wishing to comment may do so in writing to the Planning Division prior to the hearing or present written or verbal testimony to the City Council at the hearing. Hearings begin with a staff presentation, followed by testimony by proponents, testimony by opponents, and rebuttal. The time of individual testimony may be limited.

To view the application materials visit www.tualatinoregon.gov/projects. This meeting and any materials being considered can be made accessible upon request. For additional information, contact **Aquilla Hurd-Ravich** at 503-691-3028 or ahurd-ravich@ci.tualatin.or.us.

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I, G. Hatter, duly sworn depose and say that I am the Principal Clerk Of The Publisher of The Oregonian, a newspaper of general circulation, as defined by ORS 193.010 and 193.020, published in the city of Portland, in Multnomah County, Oregon; that the advertisement was published without interruption in the entire and regular issue of The Oregonian or the issue on the following date(s):

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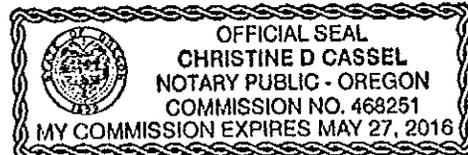
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Subscribed and sworn to before me this date:

Christine D. Casel

Notary:

Ad Order Number: 0003437677



**NOTICE OF HEARING
CITY OF TUALATIN, OREGON**

NOTICE IS HEREBY GIVEN that a public hearing will be held before the City of Tualatin City Council at 7:00 p.m. Monday, February 11, 2013 and Monday, February 25, 2013 at the Council Building, Tualatin City Center, at 18880 SW Martinazzi Avenue, to consider:

Plan Text Amendment (PTA) 12-02 proposes to adopt an updated multi-modal transportation system plan by amending the Tualatin Development Code.

Amendments are proposed to the following chapters:

Chapter 1 Administrative Provisions;

Chapter 3 Technical Memoranda;

Chapter 11 Transportation;

Chapter 31 General Provisions;

Chapter 34 Special Regulations;

Chapter 38 Sign Regulations;

Chapter 71 Wetlands Protection District;

Chapter 73 Community Design Standards;

Chapter 74 Public Improvement Requirements; and

Chapter 75 Access Management on Arterial Streets

Chapter 11 of the Tualatin Development Code contains the transportation system plan policies while all other chapters are companion amendments recommended to fully implement the planned transportation system (proposed Chapter 11). The draft Transportation System Plan and Appendices are proposed to be adopted by reference as Technical Memoranda. The PTA is a legislative process.

To grant the amendment, Council must find the proposal meets the criteria of Tualatin Development Code 1.032(1-10) relating to the public interest; timeliness; conformity with objectives of the Tualatin Community Plan; consideration of the factors listed in Section 1.032(4); the Tigard-Tualatin School District Facility Plan; the Statewide Planning Goals; the Metro Urban Growth Management Functional Plan; and impact on the transportation system.

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AFFIDAVIT OF PUBLICATION

State of Oregon, County of Washington, SS
 I, Charlotte Allsop, being the first duly sworn,
 depose and say that I am the Accounting Manager
 of *The Times* (serving Tigard, Tualatin &
 Sherwood), a newspaper of general circulation,
 published at Beaverton, in the aforesaid county
 and state, as defined by ORS 193.010 and
 193.020, that

**City of Tualatin
 Notice of Public Hearing/PTA12-02
 TT11763**

A copy of which is hereto annexed, was published
 in the entire issue of said newspaper for
 1
 week in the following issue:
 February 7, 2013

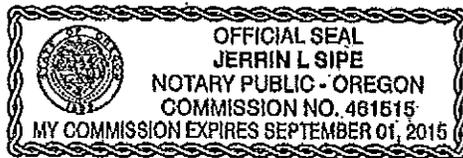
Charlotte Allsop

Charlotte Allsop (Accounting Manager)
 Subscribed and sworn to before me this
 February 7, 2013.

Jerrin L. Sipe
 NOTARY PUBLIC FOR OREGON
 My commission expires *Sept 1, 2015*

Acct #108462
 Attn: Lynette Sanford
 City of Tualatin, Planning Department
 18880 SW Martinazzi Ave
 Tualatin, OR 97062

Size: 2 x 5"
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City of Tualatin
www.ci.tualatin.or.us

**NOTICE OF HEARING
 CITY OF TUALATIN, OREGON**

NOTICE IS HEREBY GIVEN that a public hearing will be held before the City of Tualatin City Council at 7:00 p.m. Monday, February 11, 2013 and Monday, February 26, 2013 at the Council Building, Tualatin City Center, at 18880 SW Martinazzi Avenue, to consider:

Plan Text Amendment (PTA) 12-02 proposes to adopt an updated multi-modal transportation system plan by amending the Tualatin Development Code.

Amendments are proposed to the following chapters:
 Chapter 1 Administrative Provisions;
 Chapter 3 Technical Memoranda;
 Chapter 11 Transportation;
 Chapter 31 General Provisions;
 Chapter 34 Special Regulations;
 Chapter 38 Sign Regulations;
 Chapter 71 Wetlands Protection District;
 Chapter 73 Community Design Standards;
 Chapter 74 Public Improvement Requirements; and
 Chapter 76 Access Management on Arterial Streets

Chapter 11 of the Tualatin Development Code contains the transportation system plan policies. While all other chapters are nonpartisan amendments recommended to the City Council, the proposed transportation system (proposed Chapter 11), the Tualatin Transportation System Plan and Appendices are proposed to be adopted by reference as Technical Memoranda. The PTA is a legislative process.

To grant the amendment, Council must find the proposal meets the criteria of Tualatin Development Code 1.03211-10) relating to the public interest; timeliness; conformity with objectives of the Tualatin Community Plan; consideration of the factors listed in Section 1.03224; the Tigard Tualatin School District Facility Plan; the Statewide Planning Goals; the Metro Urban Growth Management Functional Plan; and impact on the transportation system.

You are invited to attend and participate in the public hearing. Failure to raise an issue at the hearing or in writing or to provide sufficient specificity to afford the Council an opportunity to respond to the issue precludes appeal to the Land Use Board of Appeals (LUBA). Copies of the application, all documents and evidence relied upon by the applicant and applicable criteria are available for inspection at no cost and will be provided at reasonable cost. A copy of the staff report will be available at no cost prior to the hearing.

Individuals wishing to comment may do so in writing to the Planning Division prior to the hearing or present written or verbal testimony to the City Council at the hearing. Hearings begin with a staff presentation, followed by testimony by proponents; testimony by opponents; and rebuttal. The time of individual testimony may be limited.

To view the application materials visit www.tualatinoregon.gov/projects. This meeting and any materials being considered can be made accessible upon request. For additional information, contact Aquilla Hurd-Ravich at 503-691-3028 or ahurd-ravich@ci.tualatin.or.us.

Publish 02/07/2013, TT11763



STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Linda Odermott, Paralegal
Sean Brady, City Attorney

DATE: 02/25/2013

SUBJECT: An Ordinance Relating to the Transportation System Plan; Adopting the 2012 Tualatin Transportation System Plan Updates; and Amending Tualatin Development Code Chapters 1, 3, 11, 31, 34, 38, 71, 73, 74, AND 75 (PTA-12-02)

ISSUE BEFORE THE COUNCIL:

Shall Council adopt an ordinance amending the Transportation System Plan to include the 2012 Updates to the Tualatin Transportation System Plan and amending Tualatin Development Code Chapters 1, 3, 11, 31, 34, 38, 71, 73, 74, and 75 (PTA 12-02)?

RECOMMENDATION:

Staff recommends Council adopt an ordinance amending the Transportation System Plan to include the 2012 Updates to the Tualatin Transportation System Plan and amending Tualatin Development Code Chapters 1, 3, 11, 31, 34, 38, 71, 73, 74, and 75 (PTA 12-02).

EXECUTIVE SUMMARY:

The City of Tualatin submitted an application for a Plan Text Amendment 1(PTA-12-02). The City provided notice of PTA-12-02 to the Oregon Department of Land Conservation and Development as provided under ORS 197.610 and notice of public hearing was given as required by Tualatin Development Code 1.031. A public hearing was held before the City Council of the city of Tualatin on February 11, 2013, and continued on February 25, 2013, to consider adopting the 2012 Transportation System Plan Updates and amend related Tualatin Development Code Chapters 1, 3, 11, 31, 34, 38, 71, 73, 74, and 75. The Council considered the public testimony and evidence presented by City staff, the written comments submitted, and the oral comments of those appearing at the public hearing.

Adopting this ordinance is in the public interest and the public interest is best protected by adopting the ordinance at this time. The ordinance complies with the Tualatin Community Plan and the applicable provisions of Tualatin Development Code 1.032. The Findings of Fact in support of this ordinance are set forth in the findings and analysis of the staff report dated February 11, 2013 and February 25, 2013, which are incorporated by this reference.

Attachments: [Ordinance](#)
[Transportation System Plan](#)

ORDINANCE NO. _____

AN ORDINANCE RELATING TO THE TRANSPORTATION SYSTEM PLAN; ADOPTING THE 2012 TUALATIN TRANSPORTATION SYSTEM PLAN UPDATES; AND AMENDING TUALATIN DEVELOPMENT CODE CHAPTERS 1, 3, 11, 31, 34, 38, 71, 73, 74, AND 75 (PTA-12-02)

WHEREAS upon the application of the City of Tualatin, a public hearing was held before the City Council of the City of Tualatin on February 11, 2013, and continued on February 25, 2013, related to a Plan Text Amendment (PTA) of the Tualatin Development Code (TDC); and amending TDC Chapters 1, 3, 11, 31, 34, 38, 71, 73, 74, and 75 (PTA-12-02); and

WHEREAS the City provided notice of PTA-12-02 to the Oregon Department of Land Conservation and Development as provided under ORS 197.610; and

WHEREAS notice of public hearing was given as required by Tualatin Development Code 1.031; and

WHEREAS the Council conducted a public hearing on February 11, 2013, and was continued on February 25, 2013, and heard and considered the testimony and evidence presented by the City staff and those appearing at the public hearing; and

WHEREAS based upon the evidence and testimony heard and considered by the Council, especially the City staff report dated February 11, 2013, makes and adopts as its Findings of Fact the findings and analysis in the staff report dated February 11, 2013, which are incorporated by this reference; and

WHEREAS the City Council finds that granting the amendment is in the public interest, the public interest is best protected by granting the amendment at this time, the amendment conforms with the Tualatin Community Plan, and the amendment complies with the applicable provisions of TDC 1.032.

THE CITY OF TUALATIN ORDAINS AS FOLLOWS:

Section 1. TDC 1.032 is amended to read as follows:

Before granting an amendment to the Plan Text or Plan Map of the Tualatin Development Code (TDC), including the Tualatin Community Plan, the Council shall find that:

- (1) Granting the amendment is in the public interest.
- (2) The public interest is best protected by granting the amendment at this time.
- (3) The proposed amendment is in conformity with the applicable objectives of the Tualatin Community Plan.

(4) The following factors were consciously considered: the various characteristics of the areas in the City; the suitability of the areas for particular land uses and improvements in the areas; trends in land improvement and development; property values; the needs of economic enterprises and the future development of the area; needed right-of-way and access for and to particular sites in the area; natural resources of the City and the protection and conservation of said resources; prospective requirements for the development of natural resources in the City; and the public need for healthful, safe, aesthetic surroundings and conditions. Proof of change in a neighborhood or area, or a mistake in the Plan Text or Plan Map for the property under consideration are additional relevant factors to consider.

(5) The criteria in the Tigard-Tualatin School District Facility Plan for school facility capacity have been considered when evaluating applications for a comprehensive plan amendment or for a residential land use regulation amendment. The Tigard-Tualatin School District's School Facility Plan criteria (formula) for new school capacity are:

$$(TCR - SMR) * CSR = NC$$

$$(NC * CFF) / CSP = MNP$$

$$(MNP \text{ or } MPS) * CSP = AC$$

Where:

CR	Total number of classrooms.
MR	Special mandated classrooms.
SR	Average class size policy for regular rooms.
C	Normal capacity.
FF	Core facility factor (kitchen, cafeteria, restrooms, offices, gym, music, mechanical: 0.12 for K-8 schools and 0.15 for 9-12 schools.
SP	Average class size policy for portables.
NP	Maximum number of portables, rounded up to the nearest whole number, <u>or</u>
PS	Maximum number of portables allowed on site, as determined by existing school capacity, above, or allowed by the City of Tualatin through land use decisions such as, but not limited to, conditional use

	permits.
C	Additional capacity.

(6) Granting the amendment is consistent with the applicable State of Oregon Planning Goals and applicable Oregon Administrative Rules, including compliance with the Transportation Planning Rule TPR (OAR 660-012-0060).

(7) Granting the amendment is consistent with the Metropolitan Service District's Urban Growth Management Functional Plan.

(8) Granting the amendment is consistent with Level of Service F for the p.m. peak hour and E for the one-half hour before and after the p.m. peak hour for the Town Center 2040 Design Type (TDC Map 9-4), and E/E for the rest of the 2040 Design Types in the City's planning area.

(9) Granting the amendment is consistent with the objectives and policies regarding potable water, sanitary sewer, and surface water management pursuant to TDC 12.020, water management issues are adequately addressed during development or redevelopment anticipated to follow the granting of a plan amendment.

(10) The applicant has entered into a development agreement.

(a) This criterion shall apply only to an amendment specific to property within the Urban Planning Area (UPA), also known as the Planning Area Boundary (PAB), as defined in both the Urban Growth Management Agreement (UGMA) with Clackamas County and the Urban Planning Area Agreement (UPAA) with Washington County. TDC Map 9-1 illustrates this area.

(b) This criterion is applicable to any issues about meeting the criterion within 1.032(9).

Section 2. TDC 3.010 is amended to read as follows:

(1) The development of the Plan for Tualatin was based as much as possible on objective data that measured conditions within the planning area. To obtain this data, the planning process was divided into 2 phases, with the first phase being data collection and the second phase being the preparation of a plan based on the collected data. The data was collected in a document entitled Phase I - Technical Memoranda. The Technical Memoranda described data concerning numerous topics. Those topics are described as follows:

(a) Citizen Involvement
Citizen Participation

(b) Land use

Natural Resource Inventory
Geological Resources
Flood Plains, Drainage and Wetlands
Fishery Resources
Wildlife Resources
Wetland Protection Regulations
Ecologically Significant Natural Areas
Vegetation
Soils Inventory, Urban/Rural Conflicts
Air Quality, Pollution Potentials
Noise Quality, Pollution Potentials
Groundwater Resources, High Groundwater and Weak Soils
Historical and Cultural Resource Inventory
Land Use Summary
Existing Land Use
Buildable Land Summary
Residential, Commercial and Industrial Demand
Population Forecast
Housing
Commercial/Industrial
Urbanization
Housing Inventory
Energy Conservation

- (c) Public Facilities
 - Transportation
 - Public Services
 - Water Supply
 - Sewerage
 - Storm Drainage
 - Flooding and Natural Hazards
 - Recreation and Open Space
 - Schools
 - Electrical, Gas and Utilities

(2) To portray material lending itself to graphic description, a series of clear mylar overlays were produced. This series of overlays was useful in describing to the advisory committees and the public much of the information necessary to reach planning decisions. The graphic overlays cover the following topics and are available for review at the Tualatin City Hall.

- (a) Slope Analysis (indicates areas that may be natural hazard areas).
- (b) Soils Classifications (indicates areas that may be natural hazard areas).

(c) Water Areas and Wetlands (indicates areas that may be natural hazard areas).

(d) Vegetation and Wildlife.

(e) Recreation and Open Space Inventory.

(f) Street Classifications and Capacities.

(g) Major Street Inventory.

(h) Existing Land Use.

(i) Water Service Areas.

(j) Sewer Service Areas.

(3) To briefly acquaint the reader with some of the data that has been used in the Plan, the following summary has been written. The summary briefly describes the data and initial findings produced in the first planning phase. For a detailed review of data used in this Plan, please refer directly to Phase I - Technical Memoranda, City of Tualatin Historic Resource Technical Study and Inventory 1992/1993, City of Tualatin Natural Resource Inventory and Local Wetlands Inventory 1995, 2001 Transportation System Plan (TSP) and 2012 TSP Update (TSP Technical Memorandum, December 2012), and NW Tualatin Concept Plan 2005.

Section 3. TDC 3.080 is amended to read as follows:

(1) Transportation.

The following is a summary of the current condition of the transportation modes serving Tualatin from the 2012 Tualatin Transportation System Plan Update (TSP Technical Memorandum, December 2012):

(a) **Pedestrian:** Pedestrian facility needs include: fill sidewalk gaps on several arterials and collector streets; narrow or obstructed sidewalks; wide or angled crosswalks at intersections; and difficult crossing on major roadways (SW Boones Ferry Road, SW Tualatin-Sherwood Road, and roadways in the downtown core). Most of the pedestrian crashes reported in the 5-year crash study time frame occurred on SW Boones Ferry Road, generally when a vehicle failed to yield for pedestrians. Most crashes occurred when a vehicle was turning. ~~Central Tualatin, areas around schools (with the notable exception of Tualatin Elementary), and newer residential and industrial development generally have good pedestrian facilities. Older roadways in the industrial area, and roadways around the fringes of the city tend to have little or no pedestrian facilities. Sections of~~

Boones Ferry Road, Nyberg Street east of I-5, and I-5 overpasses lack sidewalks on one or both sides. Multiple use pathways are provided within a number of City parks and greenways.

(b) **Bicycle:** Existing bicycle facilities in Tualatin have a few gaps and challenging connections such as: difficult left-turn maneuvers; constrained environment; difficult areas with low bike visibility; bike lanes outside of turn lanes; obstacles within the bike lanes; and gaps in the network. In addition to these needs, there are a number of high-crash locations. Most crashes result in an injury to the bicyclist, and most occur on a dry roadway surface in daylight conditions. High-crash locations include SW Boones Ferry Road and SW Tualatin-Sherwood Road, as well as the SW Nyberg Road interchange ramps at I-5. Bicycle attractors, such as schools, parks, retail centers, and public facilities, are generally not well served from the City's residential areas due to a lack of continuous bicycle facilities, and high traffic volumes on many of the City's collector streets. Central Tualatin, for example, lacks bicycle lanes on most internal streets, and on many approach routes. Although residential neighborhoods have a well-connected system of bicycle routes and the industrial area of western Tualatin are generally well served internally by bicycle facilities, bicycle facilities from these areas to other bicycle attractors have not yet been established.

(c) **Multi-use Paths:** Additional bicycle and pedestrian connections over the Tualatin River are needed to connect with existing regional paths, as well as to provide alternate routes to the one existing Ki-a-Kuts bridge that is exclusively for bicycles and pedestrians (from Tualatin Community Park to Durham City Park in Durham). Additionally, many of the existing multi-use paths are fragmented and do not connect; signs and other wayfinding guides are needed to inform bicyclists or pedestrians how to move among the various pathways, and from the pathways to on-street facilities. The planned multi-use path network is only half constructed; once the system is complete, the multi-use path network will be more comprehensive.

(e)(d) **Transit:** TriMet does not provide transit service within all areas of Tualatin or on all major corridors. No transit service is provided on SW Tualatin-Sherwood Road or SW Tualatin Road, and many residents in the western portion of the City live more than a mile from the nearest transit line. Many residents who do live near a bus line are not served by transit at regular intervals during the day. Because of the limitations of service during off-peak hours, noncommuting trips may be more difficult to complete using transit in Tualatin. Community feedback indicated the following specific needs for transit: service connecting the west side of Tualatin to the downtown core; Park-and-rides in the west and south areas of Tualatin; extended service hours, including weekend service; and more direct connections to places other than downtown Portland.

(h)(e) Roadways: Some of the existing roadways do not meet City, County, or State design standards. Further, a number of major roadways intersect with other roadways at a skew. This creates sight distance limitations and, thus, safety concerns.

The two most highly-traveled roadways are SW Tualatin-Sherwood Road and SW Nyberg Road with over 20,000 vehicles per day. SW Tualatin Road and SW Boones Ferry Road corridors have 10,000 vehicles daily at multiple locations. Additionally, SW Tualatin-Sherwood Road carries a large amount of heavy vehicles, around 11.5 percent, with SW Boones Ferry Road carrying 8.4 percent heavy vehicles (compared with the average road in the Portland Metro area, which typically carries 2-4 percent heavy vehicles). Appendix B of the TSP Technical Memorandum (December 2012) provides a full description of existing (2011) roadway conditions, while Appendix C provides a description of future (2035) forecasted roadway conditions.

In the existing conditions analysis only two intersections - SW Martinazzi Avenue and SW Sagert Street, as well as SW Teton Avenue and SW Tualatin Road, were found to have greater congestion than mobility standards allow. In the future (2035) the number of intersections not meeting operations standards grew to twelve.

Key needs identified for the street system include: improved roadway connectivity; improved travel time along congested corridors; intersection improvements; and upgrading roadway geometries. Additionally, safety is a concern for the community, and safety issues were identified at the following intersections: SW Tualatin-Sherwood Road and SW Boones Ferry Road, and SW Nyberg Street and I-5 southbound off ramps. Intersections at I-5 interchanges, on Highway 99W, and in Central Tualatin operate at or close to capacity. Four unsignalized intersections currently meet traffic signal warrants (Teton/Avery; Sagert/65th; Nyberg/65th; Sagert/Martinazzi). The I-5 and I-205 freeways, Tualatin-Sherwood Road, Boones Ferry Road, Tualatin Road, Martinazzi Avenue, and Avery Street all have sections operating at or near capacity. Crash patterns requiring further investigation were identified at three intersections: Tualatin-Sherwood Road/Martinazzi; Nyberg/I-5 southbound ramp; Lower Boones Ferry/I-5 southbound ramp.

(i)(f) Freight Routes: The needs of the freight system are consistent with those identified in the Street System Plan. Projects that address needs related to truck routes, either directly or by providing alternate routes that improve traffic operations along truck routes, serve the needs of the freight system. Traffic congestion on Tualatin-Sherwood Road slows freight movements to and through Tualatin. Sharp corners and residential

~~neighborhoods along parallel routes constrain the use of those routes as alternates to Tualatin Sherwood Road.~~

~~(e)(g) **Rail:** Portland and Western Railroad (PNWR) owns and operates two freight rail lines within the City. One track (running north-south) accommodates both freight and the WES commuter rail, and an east-west line runs along the south side of SW Herman Road. As of November 2012 the east-west line carries one train daily in each direction, and the north south has two freight trains daily in addition to the WES trains. PNWR has no current plans to increase freight service through Tualatin. Although the east-west track runs adjacent to manufacturing areas, no rail sidings or other access to businesses are planned. The Portland & Western Railroad and Willamette & Pacific operate two lines through the City of Tualatin for the movement of freight. Track conditions meet state guidelines. Industrial zoned land abuts the rail lines, providing opportunities for potential customers to locate next to rail service. Planning is underway to develop a Wilsonville Beaverton commuter rail line that would have a station in Tualatin. The closest AMTRAK passenger rail stations are located in Portland and Salem.~~

~~(d)(h) **Pipelines and Transmission Systems:** A natural gas transmission pipeline and a gasoline pipeline cross through the City. There is no anticipated need to increase pipeline capacity or construct new pipelines through the City, and therefore no such improvements are proposed in the TSP. Electric transmission lines, and natural gas distribution lines serve the City. No issues have been identified with these facilities.~~

~~(f)(i) **Air:** There are no airports within the City of Tualatin, although several airports are located within 30 miles of the City: the Aurora State Airport, Hillsboro Municipal Airport, and Portland International Airport. These airports meet the commercial, freight, and business aviation needs of Tualatin residents. No plans are proposed to construct airport facilities within the City of Tualatin; existing airports are anticipated to continue serving the citizens of Tualatin adequately. There are several public general aviation airports that serve Tualatin. The closest airport is 12 miles south of Tualatin, in Aurora. The closest airport with scheduled passenger service is the Portland International Airport, 25 miles northeast of Tualatin.~~

~~(g)(j) **WaterMarine:** The Tualatin River is the only large waterway within the City of Tualatin. The river is not navigable from the Willamette River due to impassable areas and a diversion dam downstream. The river is used primarily for recreation and is open for canoeing and kayaking. Therefore, the TSP does not include any specific policies, programs or projects for the Tualatin River as part of the transportation network. However, several projects are proposed in other sections of the TSP~~

Technical Memorandum (December 2012) to increase access to the river for recreation purposes. ~~No navigable waterways are located in the vicinity of Tualatin. The closest marine facilities are located 12 miles to the north in Portland, Oregon.~~

(2) Sewer service areas. To assist in determining areas most suited to urban development, a sewer service area overlay was prepared to illustrate the feasibility of providing sewer service throughout the Tualatin Planning Area. The Study Area was divided into 4 categories of sewer service availability in order of increasing complexity and expense of service. In addition, properties that can be served by existing pumping stations are considered to have gravity-flow service available.

(3) Water service areas. As in the case of sewer service, the Tualatin Study Area was divided into 4 categories of water service availability. The 4 categories agreed closely with the 4 categories of sewer service. In addition to showing the degree of water service complexity and expense, the water service overlay depicts main transmission lines, reservoirs, water supply sources, and the approximate dividing line between the City's upper and lower water service levels.

(4) Storm drainage. The Tualatin Drainage Plan defines and describes areas of inadequate drainage throughout the Tualatin Study Area. The Plan, which was originally prepared in 1972, will need to be updated as part of the City's planning revision work, but the overall drainage patterns have not changed. The City's core area and the area along Boones Ferry Road, south of the core area, are the most critical from the standpoint of drainage. The former will be dealt with in conjunction with Urban Renewal Area improvements.

(5) Electrical service. The Study Area is well served with major Portland General Electric Co. (PGE) transmission lines. Line extensions to newly developing areas do not appear to be a problem.

(6) Gas service. The Tualatin area is well served by several large-capacity natural gas lines. The Northwest Natural Gas Co. has main trunk lines in the Bonneville Power Administration (BPA) right-of-way west of the Study Area. The City presently has a high percentage of natural gas use, which should be reviewed in light of probable future supply and cost.

(7) Telephone service. The Tigard-Tualatin area telephone system is presently overloading, causing delays in calling and some dissatisfaction among residents and businesses. The area is served by the General Telephone Co. A new central office is in operation in the Wilsonville area, reducing the overloading of the 638-exchanges. Because of recent and expected future growth in Tualatin, General Telephone Co. is proposing the development of a new central office in Tualatin, or the expansion of their Stafford office to handle the load.

(8) Schools. At this time, the existing Tualatin Elementary School is overcrowded. A new school in south Tualatin is planned to be completed for fall of 1979. This,

according to the School District, will relieve the overcrowding. There are no sites now for a third school, although the existing Comprehensive Plan indicates several potential locations. There are 3 general areas developing for residential use in the City. The southern part of the City will be served by the new school opening in 1979, as well as the existing school, which also serves the central area of the City. The 2 other areas are east of the freeway and west of the Tualatin Country Club. These should be the areas for future sites, depending upon projected population from future residential development. High school students in Tualatin are currently served by Tigard High School. According to the School District, a major high school in Tualatin is still many years away, but preliminary thinking for a site has begun. One small portion of the Study Area in the far southwest corner of the City is served by the Sherwood School District. A revision of boundaries may be necessary in this portion of the Study Area to conform the Tigard School District boundaries to those of the City.

(9) Parks.

(a) Developed. The only developed City park within the corporate City limits is the 23-acre Tualatin Community Park and a new 6.48-acre nature park. The Community Park provides for a broad range of activities for all ages and includes the Tualatin Community Center. Both parks are in the process of being improved.

(b) Undeveloped. There are 8 existing City park sites which are currently being developed.

(c) Future. Conceived as recreational possibilities for neighborhood and broader community use, 14 sites were inventoried. These sites are scattered throughout the urbanized areas of the City. Each site is unique in its own fashion, i.e., setting, topography, views, vegetation, access, or natural wildlife resources.

(10) Conservation management areas. These areas comprise some of the City's richest natural and scenic assets and should be maintained in their present rural character. Briefly, these areas are:

(a) The wetland marsh, bog and ponds.

(b) All the flood plain area generally below the 100-year flood line.

(c) All creek and drainageways.

(d) The Tualatin riverbank areas.

(11) Bikepaths and footpaths.

(a) An existing bike and footpath system has been implemented in some

sections of the City.

(b) Future extensions of the existing bike and footpath systems were proposed to provide the City with a complete network of trails. This system was mapped in overlay fashion as part of the Technical Memoranda.

(12) School recreational facilities.

(a) These are areas suitable for play areas for small children and some field activities for older children and adults. These sites would have to be developed via a joint use agreement between the City and the Tigard School District.

(b) Existing. Tualatin Elementary School.

(c) Future. New elementary school in south Tualatin and any additional elementary school sites.

(13) Other recreational facilities.

(a) Private. The Tualatin Country Club golf course provides a major private recreational facility in the City.

(b) Public. The City of Tigard maintains Cook Park across the Tualatin River, which is available to residents of Tualatin but has no direct access from Tualatin. The Tigard School District maintains a swim center at Tigard High School that is available for use by Tualatin residents.

(14) Views.

(a) Unlike the more distinctly contoured geographic sections of other parts of the urban area, Tualatin does not have spectacular views. Views of scenic areas in Tualatin are very subtle.

(b) Features. The most important views are of the drainages, bogs and wetlands; the Tualatin River; and outstanding groups of trees.

(c) Location. The most important view areas are the marsh and wetlands running in an east-westerly direction. In the southern portion of the City, there are occasional views through the vegetation to Mt. Hood, Mt. Scott, Kerr Mountain, Bull Mountain and Cooper Mountain. Particularly important views of Mt. Hood occur when looking easterly along Nyberg, Sagert and Avery Streets.

Section 4. The following definitions are amended alphabetically in TDC 31.060 to read as follows:

Barriers. Physical or topographic conditions that make a street or accessway connection impracticable. Such conditions include but are not limited to freeways; railroads; steep slopes; wetlands or other bodies of water where a connection could not reasonably be provided; where buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; and where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or accessway connection, or the requirements of Titles 3 and 13 of the Metro Urban Growth Management Functional Plan (UGMFP).

Bike (Bicycle) Parking, Long-term. Facilities for parking bicycles for stays of moreless than four (4) hours and all-day/monthly.

Bike (Bicycle) Parking, Short-term. Facilities for parking bicycles for stays of lessmore than four (4) hours and all-day/monthly.

Major Driveway. Access is considered a major driveway when controlled byif a traffic impact analysis determines that a traffic signal is required.

Major Transit Stop. Existing and planned light rail stations, commuter rail stations and transit transfer stations, except for temporary facilities; other planned stops designated as major transit stops in TDC Chapter 11 (Figure 11-65); and existing stops which have or are planned for frequently scheduled fixed-route service.

Section 5. TDC 34.330 is amended to read as follows:

The following standards are minimum requirements for fences in a RL (Low Density Residential) or a RML (Medium Low Density Residential) Planning District, where an access-restricted lot line or property line abuts a public street classified as a major arterial, minor arterial, major collector, minor collector, or expressway by the Tualatin Functional Classification Plan, or abuts a state-owned interstate highway (I-5 or I-205).

(1) Subdivision or Partition of Property in a RL or RML Planning District.

Where property is the subject of a subdivision or partition application, and has an access-restricted property line(s) or lot line(s) that abuts a major arterial, minor arterial, major collector, minor collector, or expressway right-of-way or an interstate highway property line for a distance greater than 60 feet, a masonry fence shall be installed along the arterial/ collector/expressway/interstate highway frontage, in conformance with design standards set forth in TDC 34.340 and the fence standards set forth below:

(a) Required fencing shall be installed along the entire length of the access-restricted property line(s) or lot line(s) abutting the arterial/collector/expressway right-of-way or interstate highway property

line, except as provided in TDC 34.330(3), prior to issuance of any building permit on any parcel or lot created by the partition or subdivision.

(b) Except as provided in TDC 34.330(3), required fencing shall be located entirely outside of the public right-of-way or state-owned interstate highway property, and as close as physically possible to, approximately parallel with, either the property line or lot line abutting the arterial/collector/expressway right-of-way or interstate highway property line, or in the case of an arterial/collector/expressway street the ultimate right-of-way line, whichever is located furthest from the centerline of the street right-of-way.

(i) For public streets classified as an arterial/collector/expressway, as approved by the ~~City Engineer~~Community Development Director or their designee, the location of the ultimate right-of-way line shall be one-half of the right-of-way width specified in TDC Chapters 11 and Chapter 754 of the Tualatin Development Code for the appropriate classification of street, measured at right angles from the centerline of the actual street improvement, or measured at right angles from the centerline of the right-of-way, whichever method is determined most appropriate by the ~~City Engineer~~Community Development Director or their designee.

(ii) For public streets classified as an arterial/collector/expressway, if an owner is granted a variance from TDC 34.330(1)(b) standards, which results in a fence being located within the ultimate right-of-way area, the property owner shall execute a removal agreement, subject to City Council approval. The removal agreement shall provide that, after notice by the City, the property owner shall remove any structure, or portion thereof, that extends into the ultimate right-of-way, at no expense to the City. In case of default in that obligation, the City may cause such removal at the expense of the owner with all costs incurred to become a lien against such land or premises. The agreement shall also provide that the owner of the affected premises shall not be entitled to any damages or compensation in consequence of the City's exercise of its rights under the agreement. This provision shall not be construed as denying the owner of such property the right to just compensation for the unimproved value of any land taken for the widening of any street.

(c) Required fencing shall be installed such that stormwater drainage patterns and flow rates are not altered in a manner detrimental to property or persons.

(2) Replacement of Existing Fence, or Construction of New Fence in a RL or RML Planning District.

Where property is not the subject of a subdivision or partition application, and is developed with a single-family dwelling, and has an access-restricted property line or lot line that abuts a major arterial, minor arterial, major collector, minor collector, or expressway right-of-way, or interstate highway property line, the following fence standards apply:

(a) Replacement of an Existing Fence That Does Not Meet the Masonry Fence Standard.

Where an existing fence that does not meet the masonry fence standard set forth in TDC 34.340 is located approximately parallel with, and within ten feet of, an access-restricted property line or lot line that abuts an arterial/collector/ expressway right-of-way or interstate highway property line, AND more than 50 percent of fences that are constructed approximately parallel with, and within ten feet of, access-restricted property lines or lot lines that abut the same arterial/collector/expressway right-of-way line or interstate highway property line, in the interval between the nearest intersecting streets, or hypothetical extensions thereof in the case of interstate highways, located on both sides of the subject property (See Figure 34-1 for illustration), meet the masonry fence standard, then at the time that 60 percent or more of the length of the fence is removed, the entire length of the fence located along the arterial/collector/expressway/interstate highway frontage shall be removed and replaced with a fence that meets the masonry fence design standards set forth in TDC 34.340.

(i) Installation of required replacement fencing shall be complete within six months from the date that 60 percent or more of the length of the fence is removed;

(ii) Required fencing shall be located entirely outside of the public right-of-way or state-owned interstate highway property, and as close as physically possible to, approximately parallel with, the property line or lot line abutting the arterial/collector/expressway right-of-way or interstate highway property line, except as provided in TDC 34.330(3);

(iii) Required fencing shall be installed such that stormwater drainage patterns and flow rates are not altered in a manner detrimental to property or persons.

(b) Replacement or Repair of an Existing Fence that meets the Masonry Fence Standard.

Where an existing fence that meets the masonry fence standard set forth in TDC 34.340 is located approximately parallel with, and within ten feet of, an arterial/collector/expressway right-of-way or interstate highway property line, then at the time that any portion of the access-restricted property line or lot line that abuts a fence is removed, the fence shall be repaired or replaced in conformance with the masonry design standards set forth in TDC 34.340.

(i) Repair or replacement shall be complete within six months from the date that any portion of the fence is removed;

(ii) Required fencing shall be located entirely outside of the public right-of-way or state-owned interstate highway property, and as close as physically possible to, approximately parallel with, the property line or lot line abutting the arterial/collector/expressway right-of-way or interstate highway property line, except as provided in TDC 34.330(3);

(iii) Required fencing shall be installed such that stormwater drainage patterns and flow rates are not altered in a manner detrimental to property or persons.

(c) Construction of New Fence.

Where no existing fence is located approximately parallel with, and within ten feet of, an access-restricted property line or lot line that abuts an arterial/collector/expressway right-of-way or interstate highway property line, AND more than 50 percent of fences that are constructed approximately parallel with, and within ten feet of, access-restricted property lines or lot lines that abut the same arterial/collector/expressway right-of-way line or interstate highway property line, in the interval between the nearest intersecting streets, or hypothetical extensions thereof in the case of interstate highways, located on both sides of the subject property (See Figure 34-1 for illustration), meet the masonry fence standard, then any new fence that is constructed approximately parallel with, and within ten feet of, the access-restricted property line or lot line abutting the arterial/collector/expressway right-of-way or interstate highway property line, shall be in conformance with the required design standards set forth in TDC 34.340.

(i) Required fencing shall be located entirely outside of the public right-of-way or state-owned interstate highway property, and as close as physically possible to, approximately parallel with, the property line abutting the arterial/collector/expressway right-of-way

or interstate highway property line, except as provided in TDC 34.330(3);

(ii) Required fencing shall be installed such that stormwater drainage patterns and flow rates are not altered in a manner detrimental to property or persons.

(3) Exceptions to Fence Location or Configuration:

(a) For public streets classified as an arterial/collector/expressway, where the City Engineer determines that vehicular access is to be provided from the arterial/collector/expressway to a parcel or lot abutting the arterial/collector/expressway, the fence shall not be required along the arterial/collector/expressway frontage of that particular parcel or lot.

(b) For public streets classified as an arterial/collector/expressway, where the City Engineer determines that an opening or passage through the fence must be provided, the fence shall include such required opening. The same shall be provided in fences along state-owned interstate highways when required by the state or Tualatin Valley Fire & Rescue or the City Engineer.

(c) All vision clearance requirements set forth in TDC 73.400(16) shall be met.

(d) The City Engineer, in the case of public streets classified as an arterial/collector/expressway, or the state in the case of state-owned interstate highways, may require an alternate location or configuration of the fence alignment to accommodate stormwater facilities, easements, or other requirements, such as, but not limited to, bicycle paths, multi-use paths, or for maintenance purposes.

(e) For state-owned interstate highways, where an area of vegetation at least 200 linear feet in width runs parallel to the interstate highway and forms a visual, aesthetic or acoustic barrier, or land in a Natural Resource Protection Overlay (NRPO) district or other protected area as defined in TDC Chapter 72 runs parallel to the interstate highway, AND such land is located between the interstate highway property line and the developable area of a property being developed in the RL or RML Planning District, no fence shall be required. Where the area of vegetation is less than 200 linear feet in width, the required fence shall be located entirely outside the vegetated, NRPO or other protected area and as close as physically possible to, approximately parallel with, the edge of said vegetated, NRPO or other protected area on the developable portion of the property being developed.

Section 6. TDC 38.140 is amended to read as follows:

(1) No sign shall be permitted in the RL Planning District for permitted uses and conditional uses that allow single family dwellings except the following:

(a) Subdivision, home occupation and public transit shelter signs in accordance with TDC 38.110(15), (11) and (14).

(2) No sign shall be permitted in the RL Planning District for conditional uses other than single family dwellings except the following:

(a) Subdivision, home occupation and public transit shelter signs in accordance with TDC 38.110(15), (11) and (14).

(b) Monument signs are permitted. If used, the following standards apply.

(i) Number: One per frontage on a public street right-of-way, and no more than one on each frontage.

(ii) Number of Sides: No more than two.

(iii) Height Above Grade: No higher than five feet.

(iv) Area: No more than 18 square feet.

(v) Illumination: Indirect.

(vi) Location: No greater than 30 feet from the frontage property line along the public street right-of-way.

(vii) For churches the sign may be an internally illuminated mechanical readerboard provided it is on the frontage of an arterial or collector street designated in the TDC Chapter 11, Table Figure 11-21, and the readerboard portion is no more than 75 percent of the allowed sign face area.

(c) Wall signs are permitted. If used, the following standards apply:

(i) Number: In addition to the monument signs permitted in TDC 38.140(2)(b) above, each building on the site is permitted one wall sign, provided that the building has no less than 2000 square feet of gross floor area.

(ii) Number of Sides: No more than one.

(iii) Height Above Grade: No higher than the height of the sign band.

(iv) Area: One wall sign on one of the buildings shall be no more than 16 square feet. Wall signs on all other buildings shall be no more than eight square feet.

(v) Illumination: Indirect.

(d) In place of one of the monument signs allowed in TDC 38.140(2)(b) above, public K-12 schools are permitted pole signs subject to the following standards:

(i) Number: One per school site. Not allowed on a public high school site where an electronic message display monument sign subject to TDC 38.140(2)(e) is present.

(ii) Number of Sides: No more than two.

(iii) Height Above Grade: No higher than 15 feet.

(iv) Height of Sign Face: No higher than five feet.

(v) Area: No more than 35 square feet.

(vi) Illumination: Internal or indirect.

(vii) Mechanical Readerboard: The sign may be a mechanical readerboard.

(viii) Location: Elementary school readerboards shall be on an arterial public street right-of-way frontage or a collector frontage if no arterial frontage exists.

(e) In addition to a monument sign allowed in TDC 38.140(2)(b) above, a public high school (Grades 9-12) on a property of 40 acres or larger in area is permitted one freestanding monument sign with an electronic message display subject to the following standards:

(i) Number: One per school site.

(ii) Number of Sides: No more than two.

(iii) Height Above Grade: No higher than 8 feet.

(iv) Height of Sign Face: No higher than 6 feet

(v) Area of Sign Face: No more than 32 square feet with the electric display occupying no more than 75% of the sign face area.

(vi) Illumination of non-electronic sign face: Internal including halo effect illumination.

(vii) Electronic Message display shall have a maximum transition time between messages of 2 seconds, have a minimum display time where the image remains static for a period of 20 seconds or more; have a maximum luminance of 500 candelas per square meter after sunset and before sunrise; and shall be equipped with an automatic dimming feature that adjusts for ambient light levels.

(viii) Time of Operation: Electronic message display is restricted from the hours of 10:00 pm. to 7:00 am.

(ix) Location: An electronic message display shall be located within 30 ft. of an arterial public street right-of-way frontage and no closer than 100 ft. to a residential property.

(f) In place of the wall signs allowed in TDC 38.140(2)(c) above, public schools are permitted wall signs subject to the following standards:

(i) Number: Each building on the school site is permitted wall signage on each elevation. One sign per elevation is allowed.

(ii) Number of Sides: No more than one.

(iii) Height Above Grade: No higher than the height of the sign band.

(iv) Height of Sign Face: No higher than five feet, except that one wall sign on the east elevation of the primary building at a public high school may be up to 10 feet in height.

(v) Area: No more than 75 square feet, except one wall sign on the east elevation of the primary building at a public high school shall not exceed 300 square feet.

(vi) Illumination: Internal or indirect.

(3) See TDC 38.110(5-15) for additional signage and if used, the standards of TDC 38.110(5-15) apply.

Section 7. TDC 38.240 is amended to read as follows:

(1) No sign shall be permitted in the ML, MG or MP Planning Districts for permitted and conditional uses except the following:

(a) Monument signs are permitted. If used, the following standards apply:

(i) Location on Site: No greater than 100 feet from the frontage property line along the public street right-of-way.

(ii) Number: One per frontage on a public street right-of-way with a maximum of two and no more than one on each frontage.

(iii) Number of Sides: No more than two.

(iv) Height Above Grade: No higher than 10 feet.

(v) Area: No more than 40 square feet.

(vi) Illumination: Indirect or internal.

(vii) For schools for kindergarten through 12 in a ML Planning District, one sign may be an internally illuminated mechanical readerboard provided it is on the frontage of an arterial or collector street designated in TDC Chapter 11, Figure 11-1~~Table 11-2~~ and the readerboard portion is no more than 75 percent of the allowed sign face area.

(b) Wall signs are permitted. If used, the following standards apply:

(i) Number: One on each owned or leased wall not to exceed two walls for each owned or leased space and not to exceed four elevations of each building.

(ii) Number of Sides: No more than one.

(iii) Height Above Grade: No higher than the height of the sign band.

(iv) Height of Each Letter, Number, Symbol or Logo: No higher than four feet.

(v) Area: No more than five percent of the wall's elevation provided that an area of at least 32 square feet is permitted and the maximum is 150 square feet.

(vi) Illumination: Indirect or internal.

(vii) In the MP District in place of one wall sign, one monument sign, in addition to the monument signs allowed in (a) above, is allowed, provided it is in the yard setback area abutting the wall where the wall sign would have been located, is within 100 feet of a primary public customer doorway in the wall where the wall sign would have been located and is at least 100 feet from any other monument sign.

(2) See TDC 38.110(5-17) for additional signage and if used, the standards of TDC 38.110(5-17) apply.

Section 8. TDC 38.250 is amended to read as follows:

(1) No sign shall be permitted in the IN Planning District for permitted and conditional uses except the following:

(a) Monument signs, as set forth in TDC 38.110(1), are permitted, subject to the following standards:

(i) Number: One per motor vehicle access to a public street right-of-way and no more than one at each motor vehicle access.

(ii) Location: Monument signs shall be located no further than 75 feet from motor vehicle access.

(iii) Number of Sides: No more than two.

(iv) Height Above Grade: No higher than eight feet.

(v) Area: Each permitted monument sign shall be no more than 32 square feet.

(vi) Illumination: Indirect or internal.

(vii) Electronic Message or Mechanical Readerboard is permitted in place of or as part of a permitted monument sign on the frontage of an arterial or collector street designated in ~~the~~ TDC Chapter 11, Table 11-2 Figure 11-1, provided that the readerboard portion is no more than 75 percent of the allowed sign face area.

(b) Wall signs within a sign band, where the sign band is no higher than 17 feet from the grade used to measure height of structure, are permitted, as set forth in TDC 38.110(3), subject to the following standards:

(i) Number: Each building on site is permitted one wall sign per habitable floor elevation, provided that the building has no less than 2,000 square feet of gross floor area.

(ii) Number of Sides: No more than one.

(iii) Height Above Grade: No higher than the height of the sign band.

(iv) Area: Each wall sign shall be no more than 75 square feet.

(v) Height of Sign Face: No higher than five feet.

(vi) Illumination: Internal or indirect.

(c) Wall signs within a sign band, where the sign band is higher than 17 feet from the grade used to measure height of structure, are permitted, as set forth in TDC 38.110(3), subject to the following standards:

(i) Number: Each building on site is permitted one wall sign per habitable floor elevation, provided that the building has no less than 2,000 square feet of gross floor area.

(ii) Number of Sides: No more than one.

(iii) Height Above Grade: No higher than the height of the sign band.

(iv) Area: Each wall sign shall be no more than eight square feet.

(v) Height of Sign Face: No higher than three feet.

(vi) Illumination: Internal or indirect.

(d) See TDC 38.110(5-15) for additional signage and if used, the standards of TDC 38.110(5-15) apply.

Section 9. TDC 71.065 is amended to read as follows:

Except as otherwise provided for, or permitted, by the provisions of this chapter, and subject to the provisions of the Resource Management Plan, no permanent use of the Wetlands Protected Area (WPA) will be allowed other than passive nature study, wildlife protection and enhancement, the north-south collector road (90th Avenue) and pedestrian bridge through the Zidell property (2S1 23 100), and other activities compatible with the intent, purposes and objectives of this chapter above set forth. ~~The north-south collector shall be located according to Figure 11-2 of the Tualatin~~

~~Development Code.~~—The pedestrian bridge shall be located within 300 foot wide corridor west of the Pratt-Broome property (2S1 23 100).

Except as otherwise provided for, or permitted by the provisions of this chapter (and subject to the Resource Management Plan), no permanent use of the Sweek Pond Management Area (SPMA) will be allowed other than the following uses:

- Public uses;
- Habitat protection;
- Water supply protection;
- Enhancement;
- Restoration;
- Wetland resource protection;
- Historic houses such as the ("Hedges House") relocation;
- Environmental educational facility;
- Gardens;
- Landscaping;
- Trails;
- Parking lot;
- Lighting;
- Signing;
- Picnic facilities;
- Boardwalk with viewing platform into Sweek Pond;
- Access road east of Pond area; and
- Other uses deemed to be consistent with the Resource Management Plan.

All uses in the WPA and SPMA will be subject to the following provisions:

(1) Such permitted uses shall be in all cases and at all times remain subject to the provisions of TDC 71.090(2) and (3) of this chapter and to such other or further restrictions or conditions as may be, or become, reasonably necessary to afford to the owner(s) or to others entitled to possession or control of the area reasonable assurance that they will suffer or incur no loss, damage, expense or liability of any kind by reason of such uses or any activities undertaken in connection therewith.

(2) No discharge of firearms, trapping, poisoning, or intentional destruction of wildlife shall be permitted in the Wetlands Protection District (WPD).

(3) Annual monitoring of the number of plant and animal species and the number within each species occurring within the Wetlands Protection Area (WPA) and 40-foot setback within the Wetlands Fringe Area (WFA) may be undertaken by conservation groups under the supervision, or with the approval, of the Oregon Department of Fish and Wildlife.

(4) Uses occurring within the Wetlands Fringe Area (WFA) shall be restricted to those uses allowed by the primary planning district classifications and standards.

(5) Structures and other permanent improvements to land lying adjacent to the boundary of the Wetlands Protected Area (WPA) and Sweek Pond Management Area (SPMA) shall be located as far removed from such boundary as is consistent with the development objectives and plans of the owners or developers of such adjacent property, subject in all cases to the provisions of TDC 71.061 of this chapter.

(6) Where upland development occurs and immediately adjacent to the Wetlands Protected Area (WPA) and the 40-foot setback provided for by TDC 71.061, such development and usages associated therewith shall be effected in such a manner as to minimize to the greatest extent practicable, consistent with full development and usage of the Wetlands Fringe Area (WFA), disturbance of recognized valuable wildlife forms within the Wetlands Protected Area (WPA) by automobile, truck and pedestrian traffic, shipping and receiving activities, trash and refuse pickup or disposal activities, and outdoor production or manufacturing operations.

Section 10. TDC 71.067 is amended to read as follows:

All crossings of the Wetland Protection District have been completed and no additional crossings are contemplated.

~~(1) A new north-south collector street as more specifically described in Chapter 11 shall be permitted.~~

~~(2) Vehicle Access to the pond area of the Sweek Pond Management Area shall be provided by an access road located adjacent to the east side of such pond area. The right-of-way shall be 45 feet and the centerline shall be located within a 45 foot wide corridor, that being 22.5 feet on either side of the centerline described in Exhibit F. The access road shall be located so as to limit the impact on the Wetlands Protected Area (WPA) and the Sweek Pond Management Area (SPMA) as much as practicable. This access road shall be used to connect the RH/HR District on the east with the RH District on the west.~~

~~(3) A public pedestrian bridge over the Wetlands Protected Area is permitted, provided the bridge shall not impact an area of more than approximately 2,614 square feet within the WPA, shall be located within a corridor, described in Exhibit G. the pedestrian bridge shall be located so as to limit the impact on the Wetlands Protected Area (WPA) as much as practicable.~~

Section 11. TDC 73.160 is amended to read as follows:

The following standards are minimum requirements for commercial, industrial, public and semi-public development, and it is expected that development proposals shall meet or exceed these minimum requirements.

(1) Pedestrian and Bicycle Circulation.

(a) For commercial, public and semi-public uses:

(i) a walkway shall be provided between the main entrance to the building and any abutting public right-of-way of an arterial or collector street where a transit stop is designated or provided. The walkway shall be a minimum of 6 feet wide and shall be constructed of concrete, asphalt, or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be ADA compliant, if applicable;

(ii) walkways shall be provided between the main building entrances and other on-site buildings and accessways. The walkways shall be a minimum of 6 feet wide and shall be constructed of concrete, asphalt, or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be ADA compliant, if applicable;

(iii) walkways through parking areas, drive aisles, and loading areas shall be visibly raised and of a different appearance than the adjacent paved vehicular areas;

(iv) accessways shall be provided as a connection from the development's internal bikeways and walkways to all of the following locations that apply: abutting arterial or collector streets upon which transit stops or bike lanes are provided or designated; abutting undeveloped residential or commercial areas; adjacent undeveloped sites where an agreement to provide an accessway connection exists; and to abutting publicly-owned land intended for general public use, including schools;

(v) fences or gates which prevent pedestrian and bike access shall not be allowed at the entrance to or exit from any accessway.

(vi) bikeways shall be provided which link building entrances and bike facilities on the site with the adjoining public right-of-way and accessways.

(vii) Outdoor Recreation Access Routes shall be provided between the development's walkway and bikeway circulation system and parks, bikeways and greenways where a bike or pedestrian path is designated.

(b) For Industrial Uses:

(i) a walkway shall be provided from the main building entrance to sidewalks in the public right-of-way and other on-site buildings and accessways. The walkway shall be a minimum of 5 feet wide and constructed of concrete, asphalt, or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be ADA compliant, if applicable.

(ii) Walkways through parking areas, drive aisles and loading areas shall have a different appearance than the adjacent paved vehicular areas.

(iii) Accessways shall be provided as a connection between the development's walkway and bikeway circulation system and an adjacent bike lane;

(iv) Accessways may be gated for security purposes;

(v) Outdoor Recreation Access Routes shall be provided between the development's walkway and bikeway circulation system and parks, bikeways and greenways where a bike or pedestrian path is designated.

(c) Curb ramps shall be provided wherever a walkway or accessway crosses a curb.

(d) Accessways shall be a minimum of 8 feet wide and constructed in accordance with the Public Works Construction Code if they are public accessways, and if they are private accessways they shall be constructed of asphalt, concrete or a pervious surface such as pervious asphalt or concrete, pavers or grasscrete, but not gravel or woody material, and be ADA compliant, if applicable.

(e) Accessways to undeveloped parcels or undeveloped transit facilities need not be constructed at the time the subject property is developed. In such cases the applicant for development of a parcel adjacent to an undeveloped parcel shall enter into a written agreement with the City guaranteeing future performance by the applicant and any successors in interest of the property being developed to construct an accessway when the adjacent undeveloped parcel is developed. The agreement shall be subject to the City's review and approval.

(f) Where a bridge or culvert would be necessary to span a designated greenway or wetland to provide a connection to a bike or pedestrian path, the City may limit the number and location of accessways to reduce the impact on the greenway or wetland.

(g) Accessways shall be constructed, owned and maintained by the property owner.

(2) Drive-up Uses.

(a) Drive-up uses shall provide a minimum stacking area clear of the public right-of-way and parking lot aisles from the window serving the vehicles as follows:

(i) Banks--each lane shall provide a minimum capacity for five automobiles.

(ii) Restaurants--each lane shall provide a minimum capacity for eight automobiles.

(iii) Other Drive-Up Uses--each lane shall provide a minimum capacity for two to eight automobiles, as determined through the architectural review process.

(iv) For purposes of this Section, an automobile shall be considered no less than twenty feet in length. The width and turning radius of drive-up aisles shall be approved through the architectural review process.

(b) Parking maneuvers shall not occur in the stacking area. The stacking area shall not interfere with safe and efficient access to other parking areas on the property.

(c) Locate drive-up aisles and windows a minimum of 50 feet from residential planning districts to avoid adverse impacts. A wall or other visual or acoustic may be required through the architectural review process.

(3) Safety and Security.

(a) Locate windows and provide lighting in a manner which enables tenants, employees and police to watch over pedestrian, parking and loading areas.

(b) In commercial, public and semi-public development and where possible in industrial development, locate windows and provide lighting in a manner which enables surveillance of interior activity from the public right-of-way.

(c) Locate, orient and select on-site lighting to facilitate surveillance of on-site activities from the public right-of-way without shining into public rights-of-way or fish and wildlife habitat areas.

(d) Provide an identification system which clearly locates buildings and their entries for patrons and emergency services.

(e) Shrubs in parking areas must not exceed 30 inches in height. Tree canopies must not extend below 8 feet measured from grade.

(f) Above ground sewer or water pumping stations, pressure reading stations, water reservoirs, electrical substations, and above ground natural gas pumping stations shall provide a minimum 6' tall security fence or wall.

(4) Service, Delivery and Screening.

(a) On and above grade electrical and mechanical equipment such as transformers, heat pumps and air conditioners shall be screened with sight obscuring fences, walls or landscaping.

(b) Outdoor storage, excluding mixed solid waste and source separated recyclables storage areas listed under TDC 73.227, shall be screened with a sight obscuring fence, wall, berm or dense evergreen landscaping.

(c) Above ground pumping stations, pressure reading stations, water reservoirs; electrical substations, and above ground natural gas pumping stations shall be screened with sight-obscuring fences or walls and landscaping.

(5) The Federal Americans with Disabilities Act (ADA) applies to development in the City of Tualatin. Although TDC, Chapter 73 does not include the Oregon Structural Specialty Code's (OSSC) accessibility standards as requirements to be reviewed during the Architectural Review process, compliance with the OSSC is a requirement at the Building Permit step. It is strongly recommended all materials submitted for Architectural Review show compliance with the OSSC.

(6) (a) All industrial, institutional, retail and office development on a transit street designated in TDC Chapter 11 (Figure ~~44-611-5~~) shall provide either a transit stop pad on-site, or an on-site or public sidewalk connection to a transit stop along the subject property's frontage on the transit street.

(b) In addition to (a) above, new retail, office and institutional uses abutting major transit stops as designated in TDC Chapter 11 (Figure ~~44-611-5~~) shall:

(i) locate any portion of a building within 20 feet of the major transit stop or provide a pedestrian plaza at the transit stop;

(ii) provide a reasonably direct pedestrian connection between the major transit stop and a building entrance on the site;

(iii) provide a transit passenger landing pad accessible to disabled persons;

(iv) provide an easement or dedication for a passenger shelter as determined by the City; and

(v) provide lighting at the major transit stop.

Section 12. TDC 73.370 is amended to read as follows:

(1) General Provisions.

(a) At the time of establishment of a new structure or use, or change in use, or change in use of an existing structure, within any planning district of the City, off-street parking spaces, off-street vanpool and carpool parking spaces for commercial, institutional and industrial uses, off-street bicycle parking, and off-street loading berths shall be as provided in this and following sections, unless greater requirements are otherwise established by the conditional use permit or the Architectural Review process, based upon clear findings that a greater number of spaces are necessary at that location for protection of public health, safety and welfare or that a lesser number of vehicle parking spaces will be sufficient to carry out the objectives of this section. In the Central Design District, the Design Guidelines of TDC 73.610 shall be considered. In case of conflicts between guidelines or objectives in TDC Chapter 73, the proposal shall provide a balance.

(b) At the time of enlargement of an existing multi-family residential, commercial, institutional or industrial structure or use, TDC 73.370 shall apply to the existing and enlarged structure or use.

(c) Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.

(d) Where employees are specified, the term shall apply to all persons, including proprietors, working on the premises during the peak shift.

(e) Calculations to determine the number of required parking spaces and loading berths shall be rounded to the nearest whole number.

(f) If the use of a property changes, thereby increasing off-street parking or loading requirements, the increased parking/loading area shall be provided prior to commencement of the new use.

(g) Parking and loading requirements for structures not specifically listed herein shall be determined by the Community Development Director, based upon requirements of comparable uses listed.

(h) When several uses occupy a single structure, the total requirements for off-street parking may be the sum of the requirements of the several uses computed separately or be computed in accordance with TDC 73.370(1)(m), Joint Use Parking.

(i) Off-street parking spaces for dwellings shall be located on the same lot with the dwelling. Other required parking spaces may be located on a separate parcel, provided the parcel is not greater than five hundred (500) feet from the entrance to the building to be served, measured along the shortest pedestrian route to the building. The applicant must prove that the parking located on another parcel is functionally located and that there is safe vehicular and pedestrian access to and from the site. The parcel upon which parking facilities are located shall be in the same ownership as the structure.

(j) Required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business.

(k) Institution of on-street parking, where none is previously provided, shall not be done solely for the purpose of relieving crowded parking lots in commercial or industrial planning districts.

(l) Parking facilities may be shared by users on adjacent parcels if the following standards are met:

(i) One of the parcels has excess parking spaces, considering the present use of the property; the other parcel lacks sufficient area for required parking spaces.

(ii) The total number of parking spaces meets the standards for the sum of the number of spaces which would be separately required for each use.

(iii) Legal documentation, to the satisfaction of the City Attorney, shall be submitted verifying permanent use of the excess parking area on one lot by patrons of the uses deficient in required parking area.

(iv) Physical access between adjoining lots shall be such that functional and reasonable access is actually provided to uses on the parcel deficient in parking spaces.

(v) Adequate directional signs shall be installed specifying the joint parking arrangement.

(vi) Areas in the Natural Resource Protection Overlay District, Other Natural Areas identified in Figure 3-4 of the Parks and Recreation Master Plan, or a Clean Water Services Vegetated Corridor would be better protected.

(m) Joint Use Parking. Joint use of parking spaces may occur where two or more separate developments or multiple uses in a development are able to jointly use some or all of the same required parking spaces because their parking demands occur at different times. Joint use of parking spaces may be allowed if the following standards are met:

(i) There shall be no substantial conflict in the principal operating hours of the buildings or uses for which the joint use parking is proposed. Future change of use, such as expansion of a building or establishment of hours of operation which conflict with or affect a joint use parking agreement are prohibited, unless approval is obtained through the Architectural Review process;

(ii) The joint use parking spaces shall be located no more than 500 feet from a building or use to be served by the joint use parking;

(iii) The number and location of parking spaces, hours of use and changes in operating hours of uses subject to joint use shall be approved through the Architectural Review process;

(iv) Legal documentation, to the satisfaction of the City Attorney, shall be submitted verifying the joint use parking between the separate developments. Joint use parking agreements may include provisions covering maintenance, liability, hours of use and cross easements; and

(v) The City Attorney approved legal documentation shall be recorded by the applicant at the Washington or Clackamas County Recorder's Office and a copy of the recorded document submitted to the Planning Department prior to issuance of a building permit.

(vi) Areas in the Natural Resource Protection Overlay District, Other Natural Areas identified in Figure 3-4 of the Parks and Recreation Master Plan, or a Clean Water Services Vegetated Corridor would be better protected.

(n) Bicycle parking facilities shall ~~either be~~ include long-term parking that consists of covered, secure stationary racks, lockable enclosures, or rooms

(indoor or outdoor) in which the bicycle is stored, or and short-term parking provided by secure stationary racks (covered or not covered), which accommodate a bicyclist's lock securing the frame and both wheels. The Community Development Director, their designee, or the Architectural Review Board may approve a form of bicycle parking not specified in these provisions but that meets the needs of long-term and/or short-term parking pursuant to Section 73.370.

(o) Each bicycle parking space shall be at least 6 feet long and 2 feet wide, and overhead clearance in covered areas shall be at least 7 feet, unless a lower height is approved through the Architectural Review process.

(p) A 5-foot-wide bicycle maneuvering area shall be provided beside or between each row of bicycle parking. It shall be constructed of concrete, asphalt or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be maintained.

(q) Access to bicycle parking shall be provided by an area at least 3 feet in width. It shall be constructed of concrete, asphalt or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be maintained.

(r) Required bicycle parking shall be located in convenient, secure, and well-lighted locations approved through the Architectural Review process. Lighting, which may be provided, shall be deflected to not shine or create glare into street rights-of-way or fish and wildlife habitat areas.

(s) Long-term bicycle parking facilities may be provided inside a building in suitable secure and accessible locations.

(t) Bicycle parking may be provided within the public right-of-way in the Core Area Parking District subject to approval of the City Engineer and provided it meets the other requirements for bicycle parking.

(u) Bicycle parking areas and facilities shall be identified with appropriate signing as specified in the Manual on Uniform Traffic Control Devices (MUTCD) (latest edition). At a minimum, bicycle parking signs shall be located at the main entrance and at the location of the bicycle parking facilities.

(v) Required bicycle parking spaces shall be provided at no cost to the bicyclist, or with only a nominal charge for key deposits, etc. This shall not preclude the operation of private for-profit bicycle parking businesses.

(w) Parking on existing residential, commercial and industrial development may be redeveloped as a transit facility as a way to encourage the development of transit supportive facilities such as bus stops and pullouts, bus shelters and park and ride stations. Parking spaces converted to such uses in conjunction with the transit agency and approved through the Architectural Review process will not be required to be replaced.

(x) Required vanpool and carpool parking shall meet the 9-foot parking stall standards in Figure 73-1 and be identified with appropriate signage.

(2) Off-Street Parking Provisions.

(a) The following are the minimum and maximum requirements for off-street motor vehicle parking in the City, except for minimum parking requirements for the uses in TDC 73.370(2)(a) (Residential Uses: iii, iv, v, vi, vii; Places of Public Assembly: I, ii, iv; Commercial Amusements: I, ii; and Commercial: I, ii, xi, xii, xiv) within the Core Area Parking District (CAPD). Minimum standards for off-street motor vehicle parking for the uses in 73.370(2) (a) Residential Uses: iii, iv, v, vi, vii; Places of Public Assembly: I, ii, iv; Commercial Amusements: I, ii; and Commercial: I, ii, xi, xii, xiv in the CAPD are in TDC 73.370(2)(b). The maximum requirements are divided into Zone A and Zone B, as shown on the Tualatin Parking Zone Map, Figure 73-3. The following are exempt from calculation of maximum parking requirements: parking structures; fleet parking; parking for vehicles for sale, lease or rent; car/vanpool parking; dedicated valet parking; and user-paid parking.

Section 13. TDC 73.370 is amended to read as follows:

(1) General Provisions.

(a) At the time of establishment of a new structure or use, or change in use, or change in use of an existing structure, within any planning district of the City, off-street parking spaces, off-street vanpool and carpool parking spaces for commercial, institutional and industrial uses, off-street bicycle parking, and off-street loading berths shall be as provided in this and following sections, unless greater requirements are otherwise established by the conditional use permit or the Architectural Review process, based upon clear findings that a greater number of spaces are necessary at that location for protection of public health, safety and welfare or that a lesser number of vehicle parking spaces will be sufficient to carry out the objectives of this section. In the Central Design District, the Design Guidelines of TDC 73.610 shall be considered. In case of conflicts between guidelines or objectives in TDC Chapter 73, the proposal shall provide a balance.

(b) At the time of enlargement of an existing multi-family residential, commercial, institutional or industrial structure or use, TDC 73.370 shall apply to the existing and enlarged structure or use.

(c) Except where otherwise specified, the floor area measured shall be the gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading.

(d) Where employees are specified, the term shall apply to all persons, including proprietors, working on the premises during the peak shift.

(e) Calculations to determine the number of required parking spaces and loading berths shall be rounded to the nearest whole number.

(f) If the use of a property changes, thereby increasing off-street parking or loading requirements, the increased parking/loading area shall be provided prior to commencement of the new use.

(g) Parking and loading requirements for structures not specifically listed herein shall be determined by the Community Development Director, based upon requirements of comparable uses listed.

(h) When several uses occupy a single structure, the total requirements for off-street parking may be the sum of the requirements of the several uses computed separately or be computed in accordance with TDC 73.370(1)(m), Joint Use Parking.

(i) Off-street parking spaces for dwellings shall be located on the same lot with the dwelling. Other required parking spaces may be located on a separate parcel, provided the parcel is not greater than five hundred (500) feet from the entrance to the building to be served, measured along the shortest pedestrian route to the building. The applicant must prove that the parking located on another parcel is functionally located and that there is safe vehicular and pedestrian access to and from the site. The parcel upon which parking facilities are located shall be in the same ownership as the structure.

(j) Required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business.

(k) Institution of on-street parking, where none is previously provided, shall not be done solely for the purpose of relieving crowded parking lots in commercial or industrial planning districts.

(l) Parking facilities may be shared by users on adjacent parcels if the following standards are met:

(i) One of the parcels has excess parking spaces, considering the present use of the property; the other parcel lacks sufficient area for required parking spaces.

(ii) The total number of parking spaces meets the standards for the sum of the number of spaces which would be separately required for each use.

(iii) Legal documentation, to the satisfaction of the City Attorney, shall be submitted verifying permanent use of the excess parking area on one lot by patrons of the uses deficient in required parking area.

(iv) Physical access between adjoining lots shall be such that functional and reasonable access is actually provided to uses on the parcel deficient in parking spaces.

(v) Adequate directional signs shall be installed specifying the joint parking arrangement.

(vi) Areas in the Natural Resource Protection Overlay District, Other Natural Areas identified in Figure 3-4 of the Parks and Recreation Master Plan, or a Clean Water Services Vegetated Corridor would be better protected.

(m) Joint Use Parking. Joint use of parking spaces may occur where two or more separate developments or multiple uses in a development are able to jointly use some or all of the same required parking spaces because their parking demands occur at different times. Joint use of parking spaces may be allowed if the following standards are met:

(i) There shall be no substantial conflict in the principal operating hours of the buildings or uses for which the joint use parking is proposed. Future change of use, such as expansion of a building or establishment of hours of operation which conflict with or affect a joint use parking agreement are prohibited, unless approval is obtained through the Architectural Review process;

(ii) The joint use parking spaces shall be located no more than 500 feet from a building or use to be served by the joint use parking;

(iii) The number and location of parking spaces, hours of use and changes in operating hours of uses subject to joint use shall be approved through the Architectural Review process;

(iv) Legal documentation, to the satisfaction of the City Attorney, shall be submitted verifying the joint use parking between the separate developments. Joint use parking agreements may include provisions covering maintenance, liability, hours of use and cross easements; and

(v) The City Attorney approved legal documentation shall be recorded by the applicant at the Washington or Clackamas County Recorder's Office and a copy of the recorded document submitted to the Planning Department prior to issuance of a building permit.

(vi) Areas in the Natural Resource Protection Overlay District, Other Natural Areas identified in Figure 3-4 of the Parks and Recreation Master Plan, or a Clean Water Services Vegetated Corridor would be better protected.

(n) Bicycle parking facilities shall either be lockable enclosures in which the bicycle is stored, or secure stationary racks which accommodate a bicyclist's lock securing the frame and both wheels.

(o) Each bicycle parking space shall be at least 6 feet long and 2 feet wide, and overhead clearance in covered areas shall be at least 7 feet, unless a lower height is approved through the Architectural Review process.

(p) A 5-foot-wide bicycle maneuvering area shall be provided beside or between each row of bicycle parking. It shall be constructed of concrete, asphalt or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be maintained.

(q) Access to bicycle parking shall be provided by an area at least 3 feet in width. It shall be constructed of concrete, asphalt or a pervious surface such as pavers or grasscrete, but not gravel or woody material, and be maintained.

(r) Required bicycle parking shall be located in convenient, secure, and well-lighted locations approved through the Architectural Review process. Lighting, which may be provided, shall be deflected to not shine or create glare into street rights-of-way or fish and wildlife habitat areas.

(s) Bicycle parking facilities may be provided inside a building in suitable secure and accessible locations.

(t) Bicycle parking may be provided within the public right-of-way in the Core Area Parking District subject to approval of the City Engineer and provided it meets the other requirements for bicycle parking.

(u) Bicycle parking areas and facilities shall be identified with appropriate signing as specified in the *Manual on Uniform Traffic Control Devices* (MUTCD) (latest edition). At a minimum, bicycle parking signs shall be located at the main entrance and at the location of the bicycle parking facilities.

(v) Required bicycle parking spaces shall be provided at no cost to the bicyclist, or with only a nominal charge for key deposits, etc. This shall not preclude the operation of private for-profit bicycle parking businesses.

(w) Parking on existing residential, commercial and industrial development may be redeveloped as a transit facility as a way to encourage the development of transit supportive facilities such as bus stops and pullouts, bus shelters and park and ride stations. Parking spaces converted to such uses in conjunction with the transit agency and approved through the Architectural Review process will not be required to be replaced.

(x) Required vanpool and carpool parking shall meet the 9-foot parking stall standards in Figure 73-1 and be identified with appropriate signage.

(2) Off-Street Parking Provisions.

(a) The following are the minimum and maximum requirements for off-street motor vehicle parking in the City, except for minimum parking requirements for the uses in TDC 73.370(2)(a) (Residential Uses: iii, iv, v, vi, vii; Places of Public Assembly: I, ii, iv; Commercial Amusements: I, ii; and Commercial: I, ii, xi, xii, xiv) within the Core Area Parking District (CAPD). Minimum standards for off-street motor vehicle parking for the uses in 73.370(2) (a) Residential Uses: iii, iv, v, vi, vii; Places of Public Assembly: I, ii, iv; Commercial Amusements: I, ii; and Commercial: I, ii, xi, xii, xiv in the CAPD are in TDC 73.370(2)(b). The maximum requirements are divided into Zone A and Zone B, as shown on the Tualatin Parking Zone Map, Figure 73-3. The following are exempt from calculation of maximum parking requirements: parking structures; fleet parking; parking for vehicles for sale, lease or rent; car/vanpool parking; dedicated valet parking; and user-paid parking.

(b) The following are the minimum requirements for off-street motor vehicle parking in the Core Area Parking District (CAPD) for the uses in TDC 73.370(2)(a)(Residential Uses: iii, iv, v, vi, vii; Places of Public Assembly: i, ii, iv; Commercial Amusements: i, ii; and Commercial: i, ii, xi, xii, xiv).

(i) Core Area Parking District (CAPD) off-street motor vehicle parking standards are required at 75% of the applicable off-street motor

vehicle parking requirements identified in TDC 73.370(1)(h), 73.370(1)(m) and 73.370(2)(a).

(ii) Off-street motor vehicle parking requirements: (Refer to Core Area Parking District Ordinance TMC Chapter 11-3 for fee schedules and regulations regarding the Core Area Parking District.)

(A) Commercial, semi-public, and public uses except as outlined under TDC 73.370(2)(b)(ii)(B). A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of gross leasable area for commercial, semi-public, and public uses above grade, except as outlined under TDC 73.370(2)(b)(ii)(B).

(B) Development of a publicly-owned community center on Tract 8 of the Tualatin Commons shall be exempt from providing off-street motor vehicle parking and the impact fee within the CAPD.

(C) Residential Uses:

(1) Common-wall Dwellings including townhouses and condominiums. A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided.

(2) Multi-Family Dwellings. A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of living units, above grade.

(3) Retirement Housing, Residential Homes and Residential Facilities. A minimum of 75% of required CAPD off-street motor vehicle parking shall be provided for the first two floors of dwelling units, above grade.

(iii) CAPD off-street motor vehicle parking required under TDC 73.370(2)(b)(i) shall be provided for residential uses and gross leasable area of commercial, semi-public, and public uses below grade and above the second floor, except as outlined under TDC 73.370(2)(b)(ii)(B).

(iv) At the time of enlargement of an existing structure or use there shall be no net loss of existing off-street motor vehicle parking in addition to providing new off-street motor vehicle parking required under TDC 73.370(2)(b).

(v) Outdoor dining facilities are exempt from providing off-street motor vehicle parking within the CAPD.

(3) Off-Street Vanpool and Carpool Parking Provisions.

The minimum number of off-street Vanpool and Carpool parking for commercial, institutional and industrial uses is as follows:

Number of Required Parking Spaces	Number of Vanpool or Carpool Spaces
0 to 10	1
10 to 25	2
26 and greater	1 for each 25 spaces.

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMEN T	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
<u>Residential Uses:</u>				
(i) Detached single-family dwelling, Residential home, Residential facilities (located in low density (RL) planning districts Townhouse	2.00 vehicle parking spaces per dwelling unit, Residential Home or Residential Facility (stalls or spaces within a residential garage not included, except as approved in Architectural Review).	None	None required	N/a
(ii) Multi-family dwellings in subdivisions	1.50 spaces per unit, in addition to garage	None	Developments with four or more units; none required if a garage is provided as an integral element of a unit; otherwise 1.00 space per unit	100
(iii) Multi-family dwellings in complexes with private internal driveways	1.0 space/studio, 1.25 space/1 bedr., 1.50 space/2 bedr., 1.75 space/3+bedr. in addition to garage	None	Developments with four or more units; none required if a garage is provided as an integral element of a unit; otherwise, 1.00 space per unit	100
(iv) Retirement housing facility	1.00 space per dwelling unit	None	0.50 space per unit	50

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMENT	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
(v) Boarding house, lodging house	1.00 space per guest house accommodation	None	0.25 space per guest house accommodation	50
(vi) Congregate care, assisted living and residential care facilities	0.50 space per dwelling unit	None	2, or 0.20 spaces per dwelling unit, whichever is greater	50
(vii) Residential facilities (located in other than low density residential planning districts)	1.00 space per 3 beds, plus 1.00 space per employee	None	2, or 1.00 space for every 6 beds, whichever is greater	50
(viii) Dwelling units within the Central Design District except as specified in (d), (e), and (f) above	1.50 space per dwelling unit, including garage	None	Developments with four or more units; none required if a garage is provided as an integral element of a unit; otherwise 1.00 space per unit	100
<u>Institutions:</u>				
(i) Convalescent home, nursing home or sanitarium	1.00 space per 2 beds for patients or residents	None	2, or 1.00 space for every 6 beds, whichever is greater	50
(ii) Hospital	1.00 space per 500 sq. ft. of gross floor area	None	1 space per 1000 gross sq. ft.	First 10 spaces or 40%, whichever is greater

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMENT	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
<u>Places of Public Assembly:</u>				
(i) Library, reading room	1.00 space per 400 sq. ft. of public area	None	2, or 1.5 spaces per 1000 gross sq. ft., whichever is greater	10
(ii) Nursery, primary, elementary or middle school, child day care center	2.00 spaces per employee	None	4, or 1.00 space per 5 students based on the design capacity of the facility, whichever is greater	75
(iii) Senior high school	0.2 spaces per student plus 1.00 space per <u>and</u> staff	Zone A and Zone B: 0.3 spaces per student plus 1.00 space per staff	4, or 1.00 space per 5 students based on the design capacity of the facility, whichever is greater	25
(iv) Other places of public assembly, including churches	1.00 space per 4 seats or 8 feet of bench length	Zone A: 0.6 spaces per seat Zone B: 0.8 spaces per seat	1 space per 40 seats or 80 feet of bench length	25
<u>Commercial Amusements:</u>				
(i) Theater	1.00 space per 4 seats	Zone A: 0.4 spaces per seat Zone B: 0.5 spaces per seat	1 space per 30 seats	10

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMEN T	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
(ii) Bowling alley	5.00 spaces per lane	None	4, or 0.50 spaces per lane, whichever is greater	40
(iii) Dance hall, skating rink	4.3 spaces per 1000 sq. ft. gross floor area	Zone A: 5.4 spaces per 1000 sq. ft. gross floor area Zone B: 6.5 spaces per 1000 sq. ft. gross floor area	2 spaces per 1000 sq. ft. of floor area	50
(iv) Racquet courts, health club	1.00 space per 1000 sq. ft. gross floor area	Zone A: 1.3 spaces per 1000 sq. ft. gross floor area Zone B: 1.5 spaces per 1000 sq. ft. gross floor area	2 spaces per 1000 sq. ft. of exercise area	50
<u>Commercial:</u>				
(i) Retail shops (under 100,000 sq. ft. gross floor area)	4.00 spaces per 1000 sq. ft. of gross floor area	Zone A: 5.1 spaces per 1000 sq. ft. gross floor area Zone B: 6.2 spaces per 1000 sq. ft. gross floor area	0.50 space per 1000 sq. ft. of gross floor area	50

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMENT	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
(ii) Retail store handling exclusively bulky merchandise such as furniture or automobiles and service or repair shops ⁴	1.00 space per 400 sq. ft. of sales floor area	Zone A: 5.1 spaces per 1000 sq. ft. gross floor area Zone B: 6.2 spaces per 1000 sq. ft. gross floor area	2, or 0.20 space per 1000 sq. ft. of sales floor area, whichever is greater	50
(iii) Shopping center (over 100,000 sq. ft. of gross floor area)	4.1 spaces per 1000 sq. ft. of gross floor area	Zone A: 5.1 spaces per 1000 sq. ft. gross floor area Zone B: 6.2 spaces per 1000 sq. ft. gross floor area	0.50 space per 1000 sq. ft. of gross floor area	50
(iv) Banks/savings and loans	4.30 spaces per 1000 sq. ft. of gross floor area	Zone A: 5.4 spaces per 1000 sq. ft. gross floor area Zone B: 6.5 spaces per 1000 sq. ft. gross floor area	2, or 0.33 spaces per 1000 sq. ft., whichever is greater	10
(v) Medical & dental offices	3.90 spaces per 1000 sq. ft. of gross floor area	Zone A: 4.9 spaces per 1000 sq. ft. gross floor area Zone B: 5.9 spaces per 1000 sq. ft. gross floor area	2, or 0.33 spaces per 1000 gross sq. ft., whichever is greater	First 10 spaces or 40%, whichever is greater

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMENT	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
(vi) General office	2.70 spaces per 1000 sq. ft. of gross floor area	Zone A: 3.4 spaces per 1000 sq. ft. gross floor area Zone B: 4.1 spaces per 1000 sq. ft. gross floor area	2, or 0.50 space per 1000 gross sq. ft., whichever is greater	First 10 spaces or 40%, whichever is greater
(vii) Government office	2.70 spaces per 1000 sq. ft. of gross floor area	Zone A: 3.4 spaces per 1000 sq. ft. gross floor area Zone B: 4.1 spaces per 1000 sq. ft. gross floor area	2, or 0.50 spaces per 1000 gross sq. ft., whichever is greater	First 10 spaces or 40%, whichever is greater
(viii) Restaurant	10.00 spaces per 1000 sq. ft. of gross floor area	Zone A: 19.1 spaces per 1000 sq. ft. gross floor area Zone B: 23.0 spaces per 1000 sq. ft. gross floor area	1.00 space per 1000 gross sq. ft.	25
(ix) Drive-up restaurant	9.90 spaces per 1000 sq. ft. of gross floor area	Zone A: 12.4 spaces per 1000 sq. ft. gross floor area Zone B: 14.9 spaces per 1000 sq. ft. gross floor area	2.00 spaces per 1000 gross sq. ft.	25
(x) Motel	1.00 space per room	None	0.20 space per room	10

USE	MINIMUM MOTOR VEHICLE PARKING REQUIREMENT	MAXIMUM MOTOR VEHICLE PARKING REQUIREMENT	BICYCLE PARKING REQUIREMENT	PERCENTAGE OF BICYCLE PARKING TO BE COVERED
(xi) Mortuary	1.00 space per 4 seats or 8 feet of bench length in chapels	None	1 space per 40 seats or 80 feet of bench length	10
(xii) Office furniture and office furniture sales	1.00 space per 550 gross sq. ft.	None	2, or 0.20 space per 1000 sq. ft. of sales floor area, whichever is greater	10
(xiii) Park and Ride lots	None	None	5% of auto spaces	100
<u>(xiv) Major transit stops (not Park and Ride lots)</u>	<u>None</u>	None	<u>4</u>	<u>100</u>
(xiv) Wireless communication facility	1 space	None	n/a	n/a
<u>Industrial:</u>				
(i) Manufacturing	1.60 spaces per 1000 sq. ft. of gross floor area	None	2, or 0.10 spaces per 1000 gross sq. ft., whichever is greater	First 5 spaces or 30%, whichever is greater
(ii) Warehousing	0.30 spaces per 1000 sq. ft. of gross floor area	Zone A: 0.4 spaces per 1000 sq. ft. gross floor area Zone B: 0.5 spaces per 1000 sq. ft. gross floor area	2, or 0.10 spaces per 1000 gross sq. ft., whichever is greater	First 5 spaces or 30%, whichever is greater
(iii) Wholesale establishment	3.00 spaces per 1000 sq. ft. of gross floor area	None	2, or 0.50 spaces per 1000 gross sq. ft., whichever is greater	First 5 spaces or 30%, whichever is greater

Section 14. TDC 73.380 is amended to read as follows:

A parking lot, whether an accessory or principal use, intended for the parking of automobiles or trucks, shall comply with the following:

(1) Off-street parking lot design shall comply with the dimensional standards set forth in Figure 73-1 of this section, except for parking structures and underground parking where stall length and width requirements for a standard size stall shall be reduced by .5 feet and vehicular access at the entrance if gated shall be a minimum of 18 feet in width.

(2) Parking stalls for sub-compact vehicles shall not exceed 35 percent of the total parking stalls required by TDC 73.370(2). Stalls in excess of the number required by TDC 73.370(2) can be sub-compact stalls.

(3) Off-street parking stalls shall not exceed eight continuous spaces in a row without a landscape separation, except for parking structures and underground parking. For parking lots within the Central Design District that are designed to frame views of the central water feature or identified architectural focal elements as provided in TDC 73.350(3), this requirement shall not apply and the location of parking lot landscape islands shall be determined through the Architectural Review process.

(4) Parking lot drive aisles shall be constructed of asphalt or concrete, including pervious concrete. Parking stalls shall be constructed of asphalt or concrete, or a pervious surface such as pavers or grasscrete, but not gravel or woody material. Drive aisles and parking stalls shall be maintained adequately for all-weather use and drained to avoid water flow across sidewalks. Pervious surfaces such as pervious concrete, pavers and grasscrete, but not gravel or woody material, are encouraged for parking stalls in or abutting the Natural Resource Protection Overlay District, Other Natural Areas identified in Figure 3-4 of the Parks and Recreation Master Plan, or in a Clean Water Services Vegetated Corridor. Parking lot landscaping shall be provided pursuant to the requirements of TDC 73.350 and TDC 73.360. Walkways in parking lots shall be provided pursuant to TDC 73.160.

(5) Except for parking to serve residential uses, parking areas adjacent to or within residential planning districts or adjacent to residential uses shall be designed to minimize disturbance of residents.

(6) Artificial lighting, which may be provided, shall be deflected to not shine or create glare in a residential planning district, an adjacent dwelling, street right-of-way in such a manner as to impair the use of such way or a Natural Resource Protection Overlay District, Other Natural Areas identified in Figure 3-4 of the Parks and Recreation Master Plan, or a Clean Water Services Vegetated Corridor.

(7) Groups of more than 4 parking spaces shall be so located and served by driveways that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley.

(8) Service drives to off-street parking areas shall be designed and constructed to facilitate the flow of traffic, provide maximum safety of traffic access and egress, and maximum safety of pedestrians and vehicular traffic on the site.

(9) Parking bumpers or wheel stops or curbing shall be provided to prevent cars from encroaching on the street right-of-way, adjacent landscaped areas, or adjacent pedestrian walkways.

(10) Disability parking spaces and accessibility shall be provided in accordance with applicable federal and state requirements.

(11) On-site drive aisles without parking spaces, which provide access to parking areas with regular spaces or with a mix of regular and sub-compact spaces, shall have a minimum width of 22 feet for two-way traffic and 12 feet for one-way traffic. On-site drive aisles without parking spaces, which provide access to parking areas with only sub-compact spaces, shall have a minimum width of 20 feet for two-way traffic and 12 feet for one-way traffic.

Section 15. TDC 73.390 is amended to read as follows:

(1) The minimum number of off-street loading berths for commercial, industrial, public and semi-public uses is as follows:

Square Feet of Floor Area	Number of Berths
Less than 5,000	0
5,000 - 25,000	1
25,000 - 60,000	2
60,000 and over	3

(2) Loading berths shall conform to the following minimum size specifications.

(a) Commercial, public and semi-public uses of 5,000 to 25,000 square feet shall be 12' x 25' and uses greater than 25,000 shall be 12' x 35'

(b) Industrial uses - 12' x 60'

(c) Berths shall have an unobstructed height of 14'

(d) Loading berths shall not use the public right-of-way as part of the required off-street loading area.

(3) Required loading areas shall be screened from public view from public streets and adjacent properties by means of sight-obscuring landscaping, walls or other means, as approved through the Architectural Review process.

(4) Required loading facilities shall be installed prior to final building inspection and shall be permanently maintained as a condition of use.

(5) A driveway designed for continuous forward flow of passenger vehicles for the purpose of loading and unloading children shall be located on the site of a school or child day care center having a capacity greater than 25 students.

(6) The off-street loading facilities shall in all cases be on the same lot or parcel as the structure they are intended to serve. In no case shall the required off-street loading spaces be part of the area used to satisfy the off-street parking requirements.

(7) Subject to Architectural Review approval, the Community Development Director may allow the standards in this Section to be relaxed within the Central Design District, where a dense mix of uses is desirable in close proximity, pedestrian circulation is strongly emphasized, and the orientation of structures around a central water feature virtually eliminates the possibility of reserving any side of a building solely for truck access. Adjustments may include, but are not limited to, reduction in the number of loading berths required, adjustment of loading berth size specifications and right-of-way restrictions, shared loading berths and maneuvering areas for use by more than one building, alteration or elimination of screening requirements, and requirements for maintenance of berths in a clean and visually appealing condition. The Community Development Director, their designee, or the Architectural Review Board may allow a loading area adjacent to or within a street right-of-way in the Central Design District where the loading and unloading operations meet all of the following criteria:

(a) short in duration (i.e., less than one hour);

(b) infrequent (fewer than three operations daily);

(c) does not obstruct traffic during peak traffic hours;

(d) does not interfere with emergency response services;

(e) is acceptable to the applicable roadway authority; and

(f) the design standards for the abutting road allow on-street parking.

Section 16. TDC 73.400 is amended to read as follows:

(1) The provision and maintenance of vehicular and pedestrian ingress and egress from private property to the public streets as stipulated in this Code are continuing requirements for the use of any structure or parcel of real property in the City of Tualatin.

Access management and spacing standards are provided in this section of the TDC and TDC Chapter 75. No building or other permit shall be issued until scale plans are presented that show how the ingress and egress requirement is to be fulfilled. If the owner or occupant of a lot or building changes the use to which the lot or building is put, thereby increasing ingress and egress requirements, it shall be unlawful and a violation of this code to begin or maintain such altered use until the required increase in ingress and egress is provided.

(2) Owners of two or more uses, structures, or parcels of land may agree to utilize jointly the same ingress and egress when the combined ingress and egress of both uses, structures, or parcels of land satisfies their combined requirements as designated in this code; provided that satisfactory legal evidence is presented to the City Attorney in the form of deeds, easements, leases or contracts to establish joint use. Copies of said deeds, easements, leases or contracts shall be placed on permanent file with the City Recorder.

(3) Joint and Cross Access

(a) Adjacent commercial uses may be required to provide cross access drive and pedestrian access to allow circulation between sites.

(b) A system of joint use driveways and cross access easements may be required and may incorporate the following:

(i) a continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway separation consistent with the access management classification system and standards.

(ii) a design speed of 10 mph and a maximum width of 24 feet to accommodate two-way travel aisles designated to accommodate automobiles, service vehicles, and loading vehicles;

(iii) stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross access via a service drive;

(iv) a unified access and circulation system plan for coordinated or shared parking areas.

(c) Pursuant to this section, property owners may be required to:

(i) Record an easement with the deed allowing cross access to and from other properties served by the joint use driveways and cross access or service drive;

(ii) Record an agreement with the deed that remaining access rights along the roadway will be dedicated to the city and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;

(iii) Record a joint maintenance agreement with the deed defining maintenance responsibilities of property owners;

(iv) If (i-iii) above involve access to the state highway system or county road system, ODOT or the county shall be contacted and shall approve changes to (i-iii) above prior to any changes.

(4) Requirements for Development on Less than the Entire Site

(a) To promote unified access and circulation systems, lots and parcels under the same ownership or consolidated for the purposes of development and comprised of more than one building site shall be reviewed as one unit in relation to the access standards. The number of access points permitted shall be the minimum number necessary to provide reasonable access to these properties, not the maximum available for that frontage. All necessary easements, agreements, and stipulations shall be met. This shall also apply to phased development plans. The owner and all lessees within the affected area shall comply with the access requirements.

(b) All access must be internalized using the shared circulation system of the principal commercial development or retail center. Driveways should be designed to avoid queuing across surrounding parking and driving aisles.

(5) Lots that front on more than one street may be required to locate motor vehicle accesses on the street with the lower functional classification as determined by the City Engineer.

(6) Except as provided in TDC 53.100, all ingress and egress shall connect directly with public streets.

(7) Vehicular access for residential uses shall be brought to within 50 feet of the ground floor entrances or the ground floor landing of a stairway, ramp or elevator leading to dwelling units.

(8) To afford safe pedestrian access and egress for properties within the City, a sidewalk shall be constructed along all street frontage, prior to use or occupancy of the building or structure proposed for said property. The sidewalks required by this section shall be constructed to City standards, except in the case of streets with inadequate right-of-way width or where the final street design and grade have not been established,

in which case the sidewalks shall be constructed to a design and in a manner approved by the City Engineer. Sidewalks approved by the City Engineer may include temporary sidewalks and sidewalks constructed on private property; provided, however, that such sidewalks shall provide continuity with sidewalks of adjoining commercial developments existing or proposed. When a sidewalk is to adjoin a future street improvement, the sidewalk construction shall include construction of the curb and gutter section to grades and alignment established by the City Engineer.

(9) The standards set forth in this Code are minimum standards for access and egress, and may be increased through the Architectural Review process in any particular instance where the standards provided herein are deemed insufficient to protect the public health, safety, and general welfare.

(10) Minimum access requirements for residential uses:

(a) Ingress and egress for single-family residential uses, including townhouses, shall be paved to a minimum width of 10 feet. Maximum driveway widths shall not exceed 26 feet for one and two car garages, and 37 feet for three or more car garages. For the purposes of this section, driveway widths shall be measured at the property line.

(b) Ingress and egress for multi-family residential uses shall not be less than the following:

DWELLING UNITS	MINIMUM NUMBER REQUIRED	MINIMUM WIDTH	WALKWAYS, ETC.
2	1	16 feet	No walkways or curbs required.
3-19	1	24 feet	No walkways or curbs required.
20-49	1 Or	24 feet	6-foot walkway, 1 side only; curbs required.
	2	16 feet (one way)	
50-499	1 Or	32 feet	6-foot walkway, 1 side only; curbs required.
	2	24 feet	
Over 500	As required by City Engineer	As required by City Engineer	As required by City Engineer

(11) Minimum Access Requirements for Commercial, Public and Semi-Public Uses.

In the Central Design District, when driveway access is on local streets, not collectors or arterials and the building(s) on the property is(are) less than 5,000 square feet in gross floor area, or parking is the only use on the property, ingress and egress shall

not be less than 24 feet. In all other cases, ingress and egress for commercial uses shall not be less than the following:

REQUIRED PARKING SPACES	MINIMUM NUMBER REQUIRED	MINIMUM PAVEMENT WIDTH	MINIMUM PAVEMENT WALKWAYS, ETC.
1-99	1	32 feet for first 50 feet from ROW, 24' thereafter.	Curbs required; walkway 1 side only
100-249	2	32 feet for first 50 feet from ROW, 24' thereafter.	Curbs required; walkway 1 side only.
Over 250	As required by City Engineer	As required by City Engineer	As required by City Engineer

(12) Minimum Access Requirements for Industrial Uses.

Ingress and egress for industrial uses shall not be less than the following:

REQUIRED PARKING SPACES	MINIMUM NUMBER REQUIRED	MINIMUM PAVEMENT WIDTH	MINIMUM PAVEMENT WALKWAYS, ETC.
1-250	1	36 feet for first 50' from ROW, 24' thereafter	No curbs or walkway required.
Over 250	As required by City Engineer	As required by City Engineer	As required by City Engineer

(13) One-way Ingress or Egress.

When approved through the Architectural Review process, one-way ingress or egress may be used to satisfy the requirements of Subsections (7), (8), and (9). However, the hard surfaced pavement of one-way drives shall not be less than 16 feet for multi-family residential, commercial, or industrial uses.

(14) Maximum Driveway Widths and Other Requirements.

(a) Unless otherwise provided in this chapter, maximum driveway widths shall not exceed 40 feet.

(b) Except for townhouse lots, no driveways shall be constructed within 5 feet of an adjacent property line, except when two adjacent property owners elect to provide joint access to their respective properties, as provided by Subsection (2).

(c) There shall be a minimum distance of 40 feet between any two adjacent driveways on a single property unless a lesser distance is approved by the City Engineer.

(15) Distance between Driveways and Intersections.

Except for single-family dwellings, the minimum distance between driveways and intersections shall be as provided below. Distances listed shall be measured from the stop bar at the intersection.

(a) At the intersection of collector or arterial streets, driveways shall be located a minimum of 150 feet from the intersection.

(b) At the intersection of two local streets, driveways shall be located a minimum of 30 feet from the intersection.

(c) If the subject property is not of sufficient width to allow for the separation between driveway and intersection as provided, the driveway shall be constructed as far from the intersection as possible, while still maintaining the 5-foot setback between the driveway and property line as required by TDC 73.400(14)(b).

(d) When considering a public facilities plan that has been submitted as part of an Architectural Review plan in accordance with TDC 31.071(6), the City Engineer may approve the location of a driveway closer than 150 feet from the intersection of collector or arterial streets, based on written findings of fact in support of the decision. The written approval shall be incorporated into the decision of the City Engineer for the utility facilities portion of the Architectural Review plan under the process set forth in TDC 31.071 through 31.077.

(16) Vision Clearance Area.

(a) Local Streets - A vision clearance area for all local street intersections, local street and driveway intersections, and local street or driveway and railroad intersections shall be that triangular area formed by the right-of-way lines along such lots and a straight line joining the right-of-way lines at points which are 10 feet from the intersection point of the right-of-way lines, as measured along such lines (see Figure 73-2 for illustration).

(b) Collector Streets - A vision clearance area for all collector/arterial street intersections, collector/arterial street and local street intersections, and collector/arterial street and railroad intersections shall be that triangular area formed by the right-of-way lines along such lots and a straight line joining the right-of-way lines at points which are 25 feet from the intersection point of the right-of-way lines, as measured along such lines. Where a driveway

intersects with a collector/arterial street, the distance measured along the driveway line for the triangular area shall be 10 feet (see Figure 73-2 for illustration).

(c) Vertical Height Restriction - Except for items associated with utilities or publicly owned structures such as poles and signs and existing street trees, no vehicular parking, hedge, planting, fence, wall structure, or temporary or permanent physical obstruction shall be permitted between 30 inches and 8 feet above the established height of the curb in the clear vision area (see Figure 73-2 for illustration).

(17) Major driveways, as defined in 31.060, in new residential and mixed-use areas are required to connect with existing or planned streets except where prevented by topography, rail lines, freeways, pre-existing development or leases, easements or covenants, or other barriers.

Section 17. TDC 74.210 is amended to read as follows:

The width of streets in feet shall not be less than the width required to accommodate a street improvement needed to mitigate the impact of a proposed development. In cases where a street is required to be improved according to the standards of the TDC, the width of the right-of-way shall not be less than ~~the minimums~~ indicated in TDC Chapter ~~44~~74, Transportation Plan Public Improvement Requirements, Figures 74-2A through 74-2G.

(1) For subdivision and partition applications, wherever existing or future streets adjacent to property proposed for development are of inadequate right-of-way width the additional right-of-way necessary to comply with ~~the Transportation Element of the Tualatin Community Plan~~ TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G shall be shown on the final subdivision or partition plat prior to approval of the plat by the City. This right-of-way dedication shall be for the full width of the property abutting the roadway and, if required by the City Engineer, additional dedications shall be provided for slope and utility easements if deemed necessary.

(2) For development applications other than subdivisions and partitions, wherever existing or future streets adjacent to property proposed for development are of inadequate right-of-way width, the additional right-of-way necessary to comply with ~~the Transportation Element of the Tualatin Community Plan~~ TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G shall be dedicated to the City for use by the public prior to issuance of any building permit for the proposed development. This right-of-way dedication shall be for the full width of the property abutting the roadway and, if required by the City Engineer, additional dedications shall be provided for slope and utility easements if deemed necessary.

(3) For development applications that will impact existing streets not adjacent to the applicant's property, and to construct necessary street improvements to mitigate

those impacts would require additional right-of-way, the applicant shall be responsible for obtaining the necessary right-of-way from the property owner. A right-of-way dedication deed form shall be obtained from the City Engineer and upon completion returned to the City Engineer for acceptance by the City. On subdivision and partition plats the right-of-way dedication shall be accepted by the City prior to acceptance of the final plat by the City. On other development applications the right-of-way dedication shall be accepted by the City prior to issuance of building permits. The City may elect to exercise eminent domain and condemn necessary off-site right-of-way at the applicant's request and expense. The City Council shall determine when condemnation proceedings are to be used.

(4) If the City Engineer deems that it is impractical to acquire the additional right-of-way as required in subsections (1)-(3) of this section from both sides of the centerline in equal amounts, the City Engineer may require that the right-of-way be dedicated in a manner that would result in unequal dedication from each side of the road. This requirement will also apply to slope and utility easements as discussed in TDC 74.320 and 74.330. The City Engineer's recommendation shall be presented to the City Council in the preliminary plat approval for subdivisions and partitions, and in the recommended decision on all other development applications, prior to finalization of the right-of-way dedication requirements.

(5) Whenever a proposed development is bisected by an existing or future road or street that is of inadequate right-of-way width according to TDC Chapter 4474, Public Improvement Requirements, Figures 74-2A through 74-2G, additional right-of-way shall be dedicated from both sides or from one side only as determined by the City Engineer to bring the road right-of-way in compliance with this section.

(6) When a proposed development is adjacent to or bisected by a street proposed in TDC Chapter 11, Transportation Plan (Figure 11-3) and no street right-of-way exists at the time the development is proposed, the entire right-of-way as shown in TDC Chapter 4474, TDC Public Improvement Requirements, Figures 74-2A through 74-2G, shall be dedicated by the applicant. The dedication of right-of-way required in this subsection shall be along the route of the road as determined by the City.

Section 18. TDC 74.410 is amended to read as follows:

(1) Streets shall be extended to the proposed development site boundary where necessary to:

- (a) give access to, or permit future development of adjoining land;
- (b) provide additional access for emergency vehicles;
- (c) provide for additional direct and convenient pedestrian, bicycle and vehicle circulation;

(d) eliminate the use of cul-de-sacs except where topography, barriers such as railroads or freeways, existing development, or environmental constraints such as major streams and rivers prevent street extension.

(e) eliminate circuitous routes. The resulting dead end streets may be approved without a turnaround. A reserve strip may be required to preserve the objectives of future street extensions.

(2) Proposed streets shall comply with the general location, orientation and spacing identified in the Functional Classification Plan (Figure 11-1), Local Streets Plan; (TDC 11.630 and Figure 11-1 and Figure 11-3) and the Street Design Standards (Figures 74-2A through 74-2G).

(a) Streets and major driveways, as defined in TDC 31.060, proposed as part of new residential or mixed residential/commercial developments shall comply with the following standards:

(i) full street connections with spacing of no more than 530 feet between connections, except where prevented by constraints or barriers;

(ii) bicycle and pedestrian accessway easements where full street connections are not possible, with spacing of no more than 330 feet, except where prevented by barriers;

(iii) limiting cul-de-sacs and other closed-end street systems to situations where barriers prevent full street extensions; and

(iv) allowing cul-de-sacs and closed-end streets to be no longer than 200 feet or with more than 25 dwelling units, except for streets stubbed to future developable areas.

(b) Streets proposed as part of new industrial or commercial development shall comply with TDC 11.630, Figure 11-1, and Figures 74-2A through 74-2G.

(3) During the development application process, the location, width, and grade of streets shall be considered in relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of the land to be served by the streets. The arrangement of streets in a subdivision shall either:

(a) provide for the continuation or appropriate projection of existing streets into surrounding areas; or

(b) conform to a street plan approved or adopted by the City to meet a particular situation where topographical or other conditions make continuance of or conformance to existing streets impractical.

(4) The City Engineer may require the applicant to submit a street plan showing all existing, proposed, and future streets in the area of the proposed development.

(5) The City Engineer may require the applicant to participate in the funding of future off-site street extensions when the traffic impacts of the applicant's development warrant such a condition.

Section 19. TDC 74.420 is amended to read as follows:

When an applicant proposes to develop land adjacent to an existing or proposed street, including land which has been excluded under TDC 74.220, the applicant should be responsible for the improvements to the adjacent existing or proposed street that will bring the improvement of the street into conformance with the Transportation Plan (TDC Chapter 11), TDC 74.425 (Street Design Standards), and the City's Public Works Construction Code, subject to the following provisions:

(1) For any development proposed within the City, roadway facilities within the right-of-way described in TDC 74.210 shall be improved to standards as set out in the Public Works Construction Code.

(2) The required improvements may include the rebuilding or the reconstruction of any existing facilities located within the right-of-way adjacent to the proposed development to bring the facilities into compliance with the Public Works Construction Code.

(3) The required improvements may include the construction or rebuilding of off-site improvements which are identified to mitigate the impact of the development.

(4) Where development abuts an existing street, the improvement required shall apply only to that portion of the street right-of-way located between the property line of the parcel proposed for development and the centerline of the right-of-way, plus any additional pavement beyond the centerline deemed necessary by the City Engineer to ensure a smooth transition between a new improvement and the existing roadway (half-street improvement). Additional right-of-way and street improvements and off-site right-of-way and street improvements may be required by the City to mitigate the impact of the development. The new pavement shall connect to the existing pavement at the ends of the section being improved by tapering in accordance with the Public Works Construction Code.

(5) If additional improvements are required as part of the Access Management Plan of the City, TDC Chapter 75, the improvements shall be required in the same manner as the half-street improvement requirements.

(6) All required street improvements shall include curbs, sidewalks with appropriate buffering, storm drainage, street lights, street signs, street trees, and, where designated, bikeways and transit facilities.

(7) For subdivision and partition applications, the street improvements required by TDC Chapter 74 shall be completed and accepted by the City prior to signing the final subdivision or partition plat, or prior to releasing the security provided by the applicant to assure completion of such improvements or as otherwise specified in the development application approval.

(8) For development applications other than subdivisions and partitions, all street improvements required by this section shall be completed and accepted by the City prior to the issuance of a Certificate of Occupancy.

(9) In addition to land adjacent to an existing or proposed street, the requirements of this section shall apply to land separated from such a street only by a railroad right-of-way.

(10) Streets within, or partially within, a proposed development site shall be graded for the entire right-of-way width and constructed and surfaced in accordance with the Public Works Construction Code.

(11) Existing streets which abut the proposed development site shall be graded, constructed, reconstructed, surfaced or repaired as necessary in accordance with the Public Works Construction Code and TDC Chapter 11, Transportation Plan, and TDC 74.425 (Street Design Standards).

(12) Sidewalks with appropriate buffering shall be constructed along both sides of each internal street and at a minimum along the development side of each external street in accordance with the Public Works Construction Code.

(13) The applicant shall comply with the requirements of the Oregon Department of Transportation (ODOT), Tri-Met, Washington County and Clackamas County when a proposed development site is adjacent to a roadway under any of their jurisdictions, in addition to the requirements of this chapter.

(14) The applicant shall construct any required street improvements adjacent to parcels excluded from development, as set forth in TDC 74.220 of this chapter.

(15) Except as provided in TDC 74.430, whenever an applicant proposes to develop land with frontage on certain arterial streets and, due to the access management provisions of Chapter 75, is not allowed direct access onto the arterial, but instead must take access from another existing or future public street thereby providing an alternate to direct arterial access, the applicant shall be required to construct and place at a minimum street signage, a sidewalk, street trees and street lights along that portion of the arterial street adjacent to the applicant's property. The three certain arterial streets are S.W.

Tualatin-Sherwood Road, S.W. Pacific Highway (99W) and S.W. 124th Avenue. In addition, the applicant may be required to construct and place on the arterial at the intersection of the arterial and an existing or future public non-arterial street warranted traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices, latest edition), pavement markings, street tapers and turning lanes, in accordance with the Public Works Construction Code.

(16) The City Engineer may determine that, although concurrent construction and placement of the improvements in (14) and (15) of this section, either individually or collectively, are impractical at the time of development, the improvements will be necessary at some future date. In such a case, the applicant shall sign a written agreement guaranteeing future performance by the applicant and any successors in interest of the property being developed. The agreement shall be subject to the City's approval.

(17) Intersections should be improved to operate at a level of service of at least D and E for signalized and unsignalized intersections, respectively.

(18) Pursuant to requirements for off-site improvements as conditions of development approval in TDC 73.055(2)(e) and TDC 36.160(8), proposed multi-family residential, commercial, or institutional uses that are adjacent to a major transit stop will be required to comply with the City's Mid-Block Crossing Policy.

Section 20. TDC 74.430 amended to read as follows:

(1) When, in the opinion of the City Engineer, the construction of street improvements in accordance with TDC 74.420 would result in the creation of a hazard, or would be impractical, or would be detrimental to the City, the City Engineer may modify the scope of the required improvement to eliminate such hazardous, impractical, or detrimental results. Examples of conditions requiring modifications to improvement requirements include but are not limited to horizontal alignment, vertical alignment, significant stands of trees, fish and wildlife habitat areas, the amount of traffic generated by the proposed development, timing of the development or other conditions creating hazards for pedestrian, bicycle or motor vehicle traffic. The City Engineer may determine that, although an improvement may be impractical at the time of development, it will be necessary at some future date. In such cases, a written agreement guaranteeing future performance by the applicant in installing the required improvements must be signed by the applicant and approved by the City.

(2) When the City Engineer determines that modification of the street improvement requirements in TDC 74.420 is warranted pursuant to subsection (1) of this section, the City Engineer shall prepare written findings of modification. The City Engineer shall forward a copy of said findings and description of modification to the applicant, or his authorized agent, as part of the Utility Facilities Review for the proposed development, as provided by TDC 31.072. The decision of the City Engineer may be appealed to the City Council in accordance with TDC 31.076 and 31.077.

(3) To accommodate bicyclists on streets prior to those streets being upgraded to the full standards, an interim standard may be implemented by the City. These interim standards include reduction in motor vehicle lane width to 10 feet [the minimum specified in AASHTO's A Policy on Geometric Design of Highways and Streets (1990)], a reduction of bike lane width to 4-feet (as measured from the longitudinal gutter joint to the centerline of the bike lane stripe), and a paint-striped separation 2 to 4 feet wide in lieu of a center turn lane. Where available roadway width does not provide for these minimums, the roadway can be signed for shared use by bicycle and motor vehicle travel. When width constraints occur at an intersection, bike lanes should terminate 50 feet from the intersection with appropriate signing.

~~(4) The Local Commercial-Industrial Street Section, B-CI, may have an interim reduced cross-section as determined by the City Engineer. The interim reduced standard would include 24-28 feet of pavement, 3-foot gravel shoulders, 2:1 side slopes to a drainage ditch and a 5-foot asphalt sidewalk on one side. Development to the full B-CI Standard will be determined subject to required traffic study analysis. See Figure 75-2F for the Interim B-CI Street Standard.~~

Section 21. TDC 74.450 is amended to read as follows:

(1) Where proposed development abuts or contains an existing or proposed bikeway, ~~or pedestrian path, or multi-use path~~, as set forth in TDC Chapter 11, ~~Transportation Plan, Figure 11-4~~, the City may require that a bikeway, ~~or pedestrian path, or multi-use path~~ be constructed, and an easement or dedication provided to the City.

(2) Where required, bikeways and pedestrian paths shall be provided as follows:

(a) Bike and pedestrian paths shall be constructed and surfaced in accordance with the Public Works Construction Code.

(b) The applicant shall install the striping and signing of the bike lanes and shared roadway facilities, where designated.

Section 22. TDC 75.030 is amended to read as follows:

This section shall apply to all City, County and State public streets, roads and highways within the City and to all properties that abut these streets, roads and highways.

(1) Access shall be in conformance with TDC Chapter 73 unless otherwise noted below.

(2) ~~Freeways, Expressways and Arterials Designated.~~

For the purposes of this chapter the following are freeways, ~~expressways~~ and arterials:

- (a) Interstate 5 Freeway;
- (b) Interstate 205 Freeway;
- ~~(c) I-5/99W Connector;~~
- ~~(d)~~(c) Pacific Highway 99W;
- ~~(e)~~(d) Tualatin-Sherwood Road at all points located within the City of Tualatin Planning Area;
- ~~(f)~~(e) Nyberg Street, from its intersection with Tualatin-Sherwood Road east to 65th Avenue, including the I-5 Interchange;
- ~~(g)~~(f) 124th Avenue from Pacific Highway 99W south to Tonquin Road and/or the future I-5/99W Connector;
- ~~(h)~~(g) Lower Boones Ferry Road, from Boones Ferry Road to the Bridgeport/72nd intersection and from the Bridgeport/72nd intersection to the east City limits;
- ~~(i)~~(h) Boones Ferry Road at all points located within the City of Tualatin Planning Area;
- ~~(j)~~(i) SW 65th Avenue from its intersection with Nyberg Street south to City limits ~~Sagert Street~~;
- ~~(k)~~(j) Borland Road from SW 65th Avenue east to Saum Creek;
- ~~(l)~~(k) Bridgeport Road from Lower Boones Ferry Road to the west City limits;
- ~~(m)~~(l) Martinazzi Avenue from Boones Ferry Road south to Sagert Street;
- ~~(n) Tualatin Road from Boones Ferry Road to Herman Road;~~
- ~~(o)~~(m) Sagert Street from Martinazzi Avenue to 65th Avenue;
- ~~(p) Hall Boulevard extension from Tualatin Road to the north City limits;~~
- ~~(q)~~(n) Leveton Drive from 1408th Avenue to 12408th Avenue;
- ~~(r)~~(o) 108th Avenue from Leveton Drive to Herman Road;

~~(s)(p) Herman Road from 108th Avenue to Teton Avenue to 124th Avenue;~~

~~(r)(g) 90th Avenue;~~

~~(s)(r) Avery Street;~~

~~(t)(s) Teton Avenue;~~

~~(r)(t) Lower Boones Ferry Road extension west to Tualatin Road.~~

If the Council finds that any other road or street is in need of access control for any reason, it may direct that the street or road be added to this section through a Plan Text Amendment.

(3) Applicability

(a) This chapter applies to all developments, permit approvals, land use approvals, partitions, subdivisions, or any other actions taken by the City Council or any administrative officer of the City pertaining to property abutting any road or street listed in TDC 75.030. In addition, any parcel not abutted by a road or street listed in TDC 75.030, but having access to an arterial by any easement or prescriptive right, shall be treated as if it did abut the arterial and this chapter applies. This chapter shall take precedence over any other TDC chapter and over any other ordinance of the City when considering any development, land use approval or other proposal for property abutting an arterial or any property having an access right to an arterial.

(b) With the approval of the City Council, the City may act on its own initiative to protect the public safety and control access on arterials or any street to be included by TDC 75.030, consistent with its authority as the City's Road Authority.

Section 23. TDC 75.070 is amended to read as follows:

Except as shown ~~on~~ in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3) Map 75-1, all new intersections with arterials shall have a minimum spacing of ½ mile between intersections.

Section 24. TDC 75.080 is amended to read as follows:

Except as provided in 75.090 all properties which abut two roadways shall have access on the lowest classification roadway, preferable on a local street ~~an arterial and another road or street shall not have access on the arterial.~~

Section 25. TDC 75.090 is amended to read as follows:

When a property abuts a freeway, ~~expressway~~ or arterial and a future street shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~on Map 75-4~~, or abuts or bisects the property, the City Engineer may approve an interim access on the arterial subject to the following conditions:

(1) The City Engineer finds that at the current time the construction of the new street shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~on Map 75-4~~ is impractical due to costs of right-of-way acquisition.

(2) The property owner receiving interim access dedicates the right-of-way for the new street as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~on Map 75-4~~ if it would be on the property.

(3) At such time as the City Engineer finds that it is practical to construct a new street as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~on Map 75-4~~, the property owner agrees to pay for or construct its fair share of the new street when it is practical.

(4) At such time as the new street as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~on Map 75-4~~ is constructed, the interim access shall be closed and no longer used. The cost of this closure shall be borne by the property owner.

(5) In granting the interim access the property owner may be required to share said interim access with adjacent properties.

(6) The interim access shall be constructed in a manner to make it as efficient as possible. Improvements required as part of the interim access may include:

- (a) A left turn lane.
- (b) A right turn lane.
- (c) Driveways constructed at street intersections to provide for truck turning movement.
- (d) Dedication of additional right-of-way on the arterial.
- (e) Installation of traffic control signals.
- (f) Limitation of new driveways to right turn in, right turn out movements by construction of raised median barriers or other means.

(7) Any interim access approved in accordance with this chapter shall be set forth in the form of a written agreement, approved by the City Attorney. The agreement shall

be verified by the owner in the manner provided for deeds and restrictions on real property. The agreement shall bind the parties thereto as well as their heirs, successors in interest and assigns and shall not be modified without the express written approval of the City.

Section 26. TDC 75.100 is amended to read as follows:

If the City Engineer finds that it is physically impossible for a property to receive access from any other street or road than an arterial as defined in TDC 75.030 and that the property cannot physically be served by any new street as shown on in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~Map 75-4~~ or any logical extension of or addition thereto, the City Engineer may grant a permanent access directly to an arterial. In doing so the City Engineer may impose conditions on the construction of said access including, but not limited to:

- (1) Dedication of additional right-of-way on the arterial.
- (2) Creation of a joint access.
- (3) Construction of left turn lanes.
- (4) Construction of right turn lanes.
- (5) Installation of traffic signals.
- (6) Limitation of access to right turn in, right turn out by construction of raised median barriers or other means.

Section 27. TDC 75.110 is amended to read as follows:

(1) New streets designed to serve as alternatives to direct, parcel by parcel, access onto arterials are shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3)~~on Map 75-4~~. These streets are shown as corridors with the exact location determined through the partition, subdivision, public works permit or Architectural Review process. Unless modified by the City Council by the procedure set out below, these streets will be the only new intersections with arterials in the City. *See map for changes*

(2) Specific alignment of a new street may be altered by the City Engineer upon finding that the street, in the proposed alignment, will carry out the objectives of this chapter to the same, or a greater degree as the described alignment, that access to adjacent and nearby properties is as adequately maintained and that the revised alignment will result in a segment of the Tualatin road system which is reasonable and logical.

(3) The City Council may include additional streets on Figures 11-1 and 11-3 on Map 75-4 through the plan amendment procedure. In addition to other required findings, the City Council must find that the addition is necessary to implement the objectives of this chapter.

Section 28. TDC 75.120 is amended to read as follows:

The following list describes in detail the freeways, ~~expressways~~ and arterials as defined in TDC 75.030 with respect to access. Recommendations are made for future changes in accesses and location of future accesses. These recommendations are examples of possible solutions and shall not be construed as limiting the City's authority to change or impose different conditions if additional studies result in different recommendations from those listed below.

(1) INTERSTATE 5 (I-5)

I-5 is a State facility and access is controlled by the State.

(2) INTERSTATE 205 (I-205)

I-205 is a State facility and access is controlled by the State.

I-5/99W CONNECTOR

~~If a Goal exception is granted for the Regional Transportation Plan, the I-5/99W Connector may run from a new interchange near Norwood Road westerly and then northwesterly to Tualatin-Sherwood Road or it may run westerly to Highway 99W south of Sherwood. This roadway is a controlled access highway with possible intersections proposed at the following locations:~~

~~(1) The intersection of Boones Ferry Road and I-5/99W Connector.~~

~~(2) The intersection of Grahams Ferry Road and I-5/99W Connector.~~

~~(3) The intersection of the southern extension of SW 124th Avenue and I-5/99W Connector.~~

~~(4) The intersection of Tualatin-Sherwood Road and I-5/99W Connector.~~

~~If the I-5/99W Connector is constructed in phases, some interim accesses may be provided in accordance with TDC Chapter 75 when the road is a two-lane road. When the road is completed to its design width, it may be necessary to construct sections of a frontage road to provide access to properties along the I-5/99W Connector. This would be mainly in the area between Graham Ferry Road and the Portland and Western (old Burlington Northern) railroad track.~~

(3) PACIFIC HIGHWAY 99W

On the southeasterly side of Pacific Highway 99W access will be provided by Cipole Road, ~~a future street~~ 130th Avenue, 124th Avenue and Hazelbrook Road. ~~Prior to construction of 130th Avenue, interim access in accordance with TDC Chapter 75 may be approved by the City Engineer.~~ In addition to 130th Avenue, shared driveway accesses will be allowed between Tax Lots 2S1 21A1800 (Grimm's Fuel, 18850 ~~99W~~Cipole Road) and 1801 (Construction Equipment Company, ~~18550-18650~~ 99W), and Lots 2000 (~~SW Readymix, 18610 99W~~no street address) and 2101 (Anderson Forge and & Machine, 18500 99W), ~~Tax Map 2S121A~~. A shared driveway access will also be allowed between 130th Avenue and 124th Avenue. ~~130th Avenue should match up with a re-aligned Pacific Drive on the northwesterly side of 99W.~~ West of Cipole Road and south of Pacific Highway 99W access will be provided by a new street or private drive extending west of Cipole Road across from the proposed Cummins Drive/Cipole Road intersection.

East of 124th Avenue on the southeasterly side of Pacific Highway 99W, property will access onto Tualatin Road or onto Hazelbrook Road. In this area a central access from Pacific Highway 99W consisting of one right-in and one right-out driveway may be allowed. The access point shall be located within the middle one-third of the frontage between 124th Avenue and Hazelbrook Road. The City Engineer shall determine ~~The~~ the final location shall be determined by the City Engineer at the time any portion of either site is developed.

On the northwesterly side of Pacific Highway 99W access will be provided by Cipole Road and Pacific Drive. West of Cipole Road and north of Pacific Highway 99W, access will be provided by ~~SW~~ Pacific Drive. Pacific Drive will be extended as a frontage road toward the 124th Avenue intersection as far as is practicable as determined by the City Engineer. Past that point shared driveways shall be used as determined by the City Engineer. Pacific Drive will be reconfigured to align with 130th Avenue to form a new intersection. From the reconfigured intersection with Pacific Drive and Pacific Highway 99W to 124th Avenue, interim accesses may be approved in accordance with TDC Chapter 75. Between 124th Avenue and the Tualatin River on the northwesterly side of Pacific Highway 99W existing accesses will remain except as noted below for development or redevelopment due to the median of Pacific Highway 99W these will be limited to right-turn in, right-turn out. Any redevelopment in this area will require that the driveway accesses be consolidated to a minimum number as determined by the City Engineer

(4) TUALATIN-SHERWOOD ROAD

(a) Nyberg Street to Boones Ferry Road:

Access to this section was purchased at the time of right-of-way acquisition. Access will be provided by Martinazzi Avenue and Boones Ferry Road. Notwithstanding other provisions of this Code, a single access onto Tualatin-Sherwood Road shall be allowed along the north side of this section in the block between Martinazzi Avenue and Boones Ferry Road; its exact location and configuration shall be determined by the City Engineer.

(b) Boones Ferry Road to S.W. 89th Avenue:

All access to this property was purchased as part of the right-of-way acquisition. Access shall be limited to right-in, right-out access on the south side at Mohave Court and on the north side ~~opposite~~ opposite-kitty-corner or opposite to Mohave Court. Full access shall be prohibited at these locations by means of a median barrier. ~~A new~~An existing four-way intersection serving ~~SW 89th, Avenue, and Old Tualatin-Sherwood Road,~~ and a driveway of the Hedges Greene retail development strip mall (Tax Lot 2S123D 2600) shall be ~~is~~ located approximately 800 feet west of Boones Ferry Road. ~~This intersection shall be designed in cooperation with Washington County.~~

(c) 89th Avenue to Teton Avenue:

Tualatin-Sherwood Road access shall be limited as follows: On the north side of the road the Emery Zidell Commons Subdivision (Tax Map- 2S1-23A23D) shall have two street accesses located at 90th Avenue across from 90th Court and at 95th Place at the west property line. The intersection of 90th Avenue with Tualatin-Sherwood Road shall ~~be~~ remain a four-way intersection. The four-way intersection at the west line of the Emery Zidell Subdivision shall ~~be~~ remain located across from 95th Place on the south side of Tualatin-Sherwood Road.

Between 95th Place and 97th Avenue on the north side of Tualatin-Sherwood Road, the two existing driveways may remain, but limited to right-in, right-out. A cross access will be developed to serve tax lots 2S1 23CA 200, 90000500, 501, 600, 700, 800, 801, and 900, Tax Map 2S123CA for access to 95th Place.

~~At a point 850 feet east of Teton a~~The cul-de-sac street system (of 97th Avenue) ~~will extend~~ extends north with Potano Street as a stub to the west to ~~pick up~~ serve the property behind Premier Industrial Park Tax Lot 2S1 23CB 100. On the south side ~~Evergreen Business Park~~Tualatin Gardens Subdivision (Tax Lot 2S1 23DA, 1400) shall access onto Old Tualatin-Sherwood Road. Tax Lots 2S1 23DB 00600 and 2S1 23DC 00401600, ~~Tax Map 2S1 23DB (9360 Tualatin-Sherwood Road)~~ shall access onto 95th Place. Between 97th Avenue and Teton Road, Tax Lots 2S1 23CC 200 and 300 of Tax Map 2S123CC shall have a joint driveway access, and Tax Lot 400 of ~~Tax Map 2S123CC~~ shall have a cross access to either the joint driveway on Tax Lots 200 and 300 or a cross access over Tax Lot 500 to Teton Avenue.

~~A driveway, which may become or a cul-de-sac street, will extend~~ extends south of Tualatin-Sherwood Road at 97th Avenue. The driveway ~~or cul-de-sac will~~ provides access for ~~the two~~ Tax Lot 2S1 23CD 300 and the six Tualatin Business West (old Pardue) properties Tax Lots 2S123CD 700, 800, 900,

1000, 1100, and 1200 (2S1 23 CD/200, 300) located between 95th Place and the properties to the west fronting SW Teton (2S1 23CC/1100, 1200, 1300). The properties fronting on Teton Avenue will take access from Teton Avenue. The Washington County water quality facility (Tax Lot 2S1 23CC 1000/2S1 23CC/1000) is permitted the one existing service driveway adjacent to its east property line.

(d) Teton Avenue to Avery Street/112th Avenue:

On the north side of Tualatin-Sherwood Road no new ~~streets or~~ driveways will be constructed and existing driveways will be removed at the time of development or redevelopment. All of the properties will be served by either Manhasset Drive or 112th Avenue. 112th Avenue will connect to Myslony Street. Tax Lot 2S1 22DD 600 (Western Industrial Ceramics (2S1 22D/200)) shall take access to Manhasset Street. An eastern extension off of the 112th Avenue/Myslony Street connection will terminate at and provide access to ~~the~~ Tax Lot 2S1 22D 600 (Pascuzzi Investment LLC (2S1 22D/600)) and may provide additional access for Tax Lot 2S1 22DD 100 (UPS (2S1 22D/301)), which has access from the west end of Manhasset Drive properties. ~~The actual alignments of the 112th Avenue/Myslony Street connection and the eastern extension to the Pascuzzi and UPS properties will be determined at the time the surrounding properties are developed.~~ 112th Avenue may be constructed over some period of time and will require interim access agreements per TDC 75.090.

On the south side of Tualatin-Sherwood Road there will be no new driveways or streets. Development of property east of Tax Lot 2S1 27AA 90000 (Arlington Commons at Tualatin Condominiums) ~~Oregon Culvert (2S1 27A/101, 102)~~ on Tualatin-Sherwood Road may be accomplished only with a joint access agreement with Air Liquid Lakeside Lumber through ~~the Air Liquid~~ its driveways on Tax Lot 2S1 27AA 2000. ~~The Oregon Culvert property (2S1 27AA/100 and 200)~~ Tax Lot 90000 shall have one access onto Tualatin-Sherwood Road. Properties between ~~Oregon Culvert~~ Arlington Commons at Tualatin and Avery Street on the south side shall be served from SW Avery Street and Avery Court and no driveway or street access will be constructed with Tualatin-Sherwood Road.

(e) Avery Street/112th to Cipole Road:

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:

- (1i) An intersection with 115th Avenue approximately 1,100 feet west of the intersection of Tualatin-Sherwood Road and 112th Avenue which will extend north to Amu Street and east to an

~~intersection at 112th Avenue a minimum of 150 feet north of Tualatin-Sherwood Road.~~

~~(2ii) An intersection approximately 1,300 feet east of the intersection of Tualatin-Sherwood Road and 1240th Avenue which will extend north and west to an intersection at 124th Avenue approximately 800 feet north of Tualatin-Sherwood Road.~~

~~(3iii) 124th Avenue.~~

~~(4iv) Cipole Road.~~

~~The exact location and configuration of the streets or driveways shall be determined by the City Engineer.~~

On the south side of Tualatin-Sherwood Road between Avery Street and 120th Avenue the area will be served by the following street system:

~~(4v) An intersection with 115th Avenue approximately 1100 feet west of Avery Street.~~

~~(2vi) 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. Tax Lot 2S127B 800 (Select Sales (2S1-27B/800)) shall have a cross access to 115th Avenue.

(5) S.W. NYBERG STREET

Tualatin-Sherwood Road to 65th Avenue:

(a) West of I-5:

~~On the south side between Fred Meyer and I-5 Freeway any development shall be served by the Fred Meyer driveway (Tax Lot 2S1 24CA 200 or Urban Renewal Area Block 6) aligned with the ~~K-Mart~~ Urban Renewal Area Block 2 driveway on the north side and shall not be granted any access to Nyberg Street. No additional driveways will be allowed.~~

(b) East of I-5:

~~On the east side of I-5 Freeway on the north side of the road between the Sweetbrier Inn and the Trailer Park of Portland, any additional development or redevelopment shall remove existing driveways and, the Nyberg Woods developments shopping center (Tax Lot 2S1 24A 2503) shall be limited to ~~two~~ one ~~signalized street accesses and one right-in/right-out access.~~ and ~~the~~ driveway for Forest Rim Apartments (Tax Lot 2S1 24A~~

2800) ~~may remain, and a driveway on the west side of 7035 SW Nyberg Street (2S124A/2505).~~

On the south side, ~~east of I-5 Freeway of Nyberg Street, west~~ accesses to Tax Lot 2S1 24DB 200 (Shell) ~~Texaco~~ ~~may~~ shall be limited to right-in, right-out, and Tax Lot 2S1 24DB 100 (La-Z-Boy) ~~zyboy~~ access shall be aligned with the Nyberg Woods signalized access ~~Forest Rim Apartments will be relocated to align with the access on the north side of Nyberg Street.~~ The existing westside Nyberg Retail access ~~may~~ shall be limited to right-in, right-out. Tax Lot 2S1 24DA 100 (he Meridian Park Veterinary Hospital and 7-11 Eleven) shall share a driveways ~~that aligns with~~ ~~may remain, or be closed or combined if redevelopment occurs, or be changed as needed when the the 65th/Nyberg Street intersection is reconfigured.~~ There will be no new additional driveways created in this section of roadway.

(6) 124TH AVENUE

(a) Pacific Highway to Tualatin Road:

~~Tualatin Road shall intersect with 124th Avenue as a T-intersection approximately 450 feet south of Pacific Highway. No street or driveway accesses on the west side of this intersection will be permitted. No driveway accesses shall be allowed between Pacific Highway 99W and Tualatin Road.~~

(b) Tualatin Road to Herman Road:

Between Tualatin Road and Herman Road, access to 124th Avenue shall be limited to a street intersection at Leveton Drive. The area west of the 124th Avenue/Tualatin Road intersection and south of Pacific Highway 99W will be served by a cul-de-sac connecting to the westward extension of Leveton Drive. ~~Access to 124th in this section may require the execution of interim agreements per TDC 75.090 to serve properties on the west side of 124th Avenue until the new street system can be constructed to adequately serve all the properties.~~

(c) Herman Road to Tualatin-Sherwood Road:

On the east side of 124th Avenue between Herman Road and Tualatin-Sherwood Road the area will be served by the following streets or driveways:

4(i) A street intersection at Myslony Street.

2(ii) A street or driveway intersection approximately 800 feet south of the Myslony Street/124th Avenue intersection extending east with an alternative to extend north to connect with Myslony Street a minimum

of 150 feet east of 124th Avenue. Access may be limited to right in/right out as determined by the City Engineer.

~~3(iii) A street or driveway intersection approximately 800 feet north of the intersection of Tualatin-Sherwood Road and 124th Avenue~~ Cimino Street extending east and south to an intersection at Tualatin-Sherwood Road across from 120th Avenue. The exact location and configuration of the streets and driveways shall be determined by the City Engineer.

On the west side of 124th Avenue between Herman Road and Tualatin-Sherwood Road the area will be served by the following streets or driveways:

~~4(iv)~~ A driveway across from Myslony Street.

~~2(v)~~ A street or driveway intersection approximately 800 feet north of the intersection of Tualatin-Sherwood Road and 124th Avenue. The exact location and configuration of the streets or driveways shall be determined by the City Engineer.

(d) Tualatin-Sherwood Road to Tonquin Road ~~and/or a future I-5/99W Connector:~~

Between Tualatin-Sherwood Road and Tonquin Road ~~and/or a future I-5/99W 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 I-5 to 99W Connector is constructed~~, a (possibly interim) connection to Tonquin Road may also be provided.

(7) LOWER BOONES FERRY ROAD

(a) Boones Ferry Road to Childs Road:

On the south side of the road, Tax Lot 2S1 24AB 800 ~~the (Club Sport Oregon property (old Costco site)) (2S124AB, 800) (18120 SW Boones Ferry Road)~~ shall have its access located at its east property line. This access shall be combined with the access of the Mt. Hood Chemical Building ~~(the old Chadwick building)~~ (Tax Lot 2S1 24AB 700) at its west property line into one joint access.

On the north side of the road is a small lot (Leageld Development; Tax Lot ~~)~~(2S1 13DC 2000) ~~whose the driveway of which~~ shall line up with the intersection of Childs Road and Lower Boones Ferry Road.

(b) Childs Road to I-5 Freeway:

On the south side of the road the existing driveways may be allowed to remain. ~~No new driveways will be permitted. If the properties change to another Planning District, the number and location of the accesses may need to be changed. The property at the northeast corner of Lower Boones Ferry Road and Childs Road, (Foursquare Church) shall take its access off of Childs Road. The Billygan's Roadhouse (2S113DC/700 & 800) shall share an access with 2S113DC/1100.~~

On the north side of the road, the existing driveways may be allowed to remain. ~~No new driveways will be permitted. The Robertson/Bioremediation lots (2S113DC/ 1800 & 1900) shall share a driveway. The Robinson Property (old Directors Furniture site) east of the Schneider Truck Terminal (the old Ryder Truck rental facility) (2S1 13DC/1000) shall align its driveway with the driveway immediately across Lower Boones Ferry Road on the south side. The Barbara Johnson property (2S1 13DC/501) shall share an access and may be limited to right in, right out. The CarQuest site (2S113DC/501) shall take access off of Hazel Fern Road.~~

(c) I-5 Freeway northerly to Bridgeport Road:

On the west side, Hazel Fern Road shall intersect with Lower Boones Ferry Road, as Traveller's Lane. ~~The Village Inn's (2S113DB/1200 & 1300) access may remain. If the site is re-developed, access shall be determined by the City Engineer. Shilo Inn (2S1 13DB 1400) shall access off of Hazel Fern Road.~~

On the east side, the Tri-Met park and ride shall be permitted two driveway accesses as determined by the City Engineer.

(d) 72nd Avenue to the east City limits:

On the north side access shall be permitted only by 65th Avenue and 63rd Avenue and a right-in, right-out driveway between 65th and 63rd Avenues. Between 63rd Avenue and the east City limits the properties fronting Lower Boones Ferry Road shall take access from 63rd Avenue.

On the south side access shall be permitted at 65th Avenue. Between 65th Avenue and the east City limits no new accesses shall be permitted. A median may be constructed to limit access to right-in, right-out.

(8) BOONES FERRY ROAD

(a) North City Limits to the Tualatin River:

All existing driveways will remain. No new driveways will be permitted.

(b) Tualatin River to Tualatin Road:

Between the River and Martinazzi Avenue on the south side, the access for the apartments (Tax Lot 2S1 24B/_1500) will be closed and converted

over to the Loop Road. The Loop Road ~~may~~ will have a right-in, right-out connection to Boones Ferry Road between the river and Martinazzi Avenue. On the south side of Boones Ferry Road between Martinazzi Avenue and the driveway for the White Lot (~~old~~ formerly Lot C), any development or redevelopment shall take access over the White Lot or from Martinazzi Avenue. Between the White lot and 84th Avenue, all properties shall have combined accesses resulting in only one access on Boones Ferry Road. Between 84th Avenue and Tualatin Road on the south side, any redevelopment shall result in no driveways onto Boones Ferry Road and access shall be taken from 84th Avenue or Seneca Street.

On the north side ~~the Baranzano (Tax Lots 2S1 24BC/ 1301 and, 1400 (known for the defunct River House project through applicant Baranzano and owned by CSB LLC) and Bray Tax Lot (2S1 24B/ 1300 (Apartments by Hedges Creek; Kaplan) properties shall combine their driveways at a location to be determined by the design of the Martinazzi Avenue-Boones Ferry Road inter-section. Further the Baranzano River House and Kaplan Apartments by Hedges Creek (formerly Greulich) (2S1 24BC/1300) properties shall combine their access into one on Lot 1300 across from the White lot's driveway. Between the Green (~~old former Lot G lot) and Blue (~~old former Lot H lot) lots~~ Lots, any redevelopment of these properties shall remove the existing driveways and take access from the public parking lots from a cross access between the two public lots. Between the Blue ~~lot Lot~~ and Tualatin Road any development or redevelopment shall have access off of Tualatin Road at the north edge of the property or over the Blue ~~lot Lot~~.~~~~

(c) Tualatin Road to Tualatin-Sherwood Road:

On the west side of this road is the Portland ~~and~~ & Western (~~old Burlington Northern) railroad Railroad (PNWR) tracks. There will be no access to Boones Ferry Road across the Portland and Western PNWR tracks except an access for a public street to the west side of the railroad tracks, centered on the centerline of Nyberg Street. The existing two driveways to the Pratt Broome (Tax Lot 2S1 23D /23400 (Sweek House also known as Willowbrook) property shall be allowed a gated emergency access onto Boones Ferry Road, the other access shall be closed and access taken over Tax Lot 2S1 23D 2600 (the Hedges Greene R retail development ~~strip mall~~) to Nyberg Street.~~

On the east side of this road, all redevelopment shall lead to elimination of all driveways onto Boones Ferry Road. Vehicular access to Boones Ferry Road in this section shall be limited to the Seneca Street intersection and Nyberg Street intersection. This will require interim access agreements per TDC 75.090.

(d) Tualatin-Sherwood Road to Sagert Street:

On the west side, all existing driveways will be allowed to remain. On the frontage of the property of the demolished historic former Old Tualatin Elementary Grade School property (Tax Lots 2S1 23DD 500 and 501), frontage (2S1 23DD 500), a new local street intersection is allowed on SW Boones Ferry Road that connects to a future public street on the Old Tualatin Elementary School property that extends north from SW Sagert Street in the approximate alignment of SW 90th Avenue. The new local street intersection may be located approximately 500 ft. north of the intersection with SW Sagert Street. Tax Lot 2S1 23DA 100 (The Tualatin Center unnamed strip mall retail development at the intersection with Warm Springs Street property (the old Galloway site) (2S1 23DA/100) (19401 19417 Boones Ferry Road) will have one access aligned with Warm Springs.

On the east side, the old McDonald's driveway of McDonalds (Tax Lots 2S1 24CB 1201, 1301, and 1400) was closed and shall remain closed (2S1 24CB/1201). Any additional development on the Brock property (2S1 24CB 2100) shall result in closure of this driveway to Boones Ferry Road. Any additional development on the Ziedman property (Tax Lot 2S1 24CB/ 2200 (Tualatin West Center retail development) shall result in closure of this driveway to Boones Ferry Road. Between Warm Springs Street and Tualatin-Sherwood Road, as an option to closing the driveways at Brocks, and Tualatin West Center Ziedmans, it may be permissible to construct a raised median barrier or other improvements in Boones Ferry Road in this section to physically eliminate left turning movements, thus limiting all these driveways to right turn in, right turn out. Any redevelopment of the residential property between Mohawk and Sagert on the east side of Boones Ferry Road shall be accomplished in such a manner that the ultimate access to this area is from a street off of Sagert Street at its intersection with 86th Avenue. This may require interim agreements in accordance with TDC 75.090. All existing driveways in this area will be allowed to remain so long as the use of the property does not change.

(e) Boones Ferry Road south of Sagert Street to Avery Street:

The existing driveways will be allowed to remain. Any redevelopment of any residential property between Sagert and Avery shall result in no additional driveways being constructed in this area

(f) Avery Street to Ibach Street:

South of Avery Street, the Sundae Meadows Subdivision and Tualatin Presbyterian Church (Tax Lot 2S1 26AC, 301) (9230 Siletz Drive) shall access Boones Ferry Road via Siletz Drive. One additional street or private drive (Cherry Lane) will be allowed provided for the Boones Ferry Condos (2S1 26AC Supplemental Boones Ferry Commons Condominiums (Tax Lot 2S1 26CA 90000).

(g) Ibach Street to Norwood Road:

Development of these residential properties shall result in no more than two driveway accesses for Tualatin High School, one emergency access with no curb cut for Graham's Landing Townhomes Condos (SW Corner of Boones Ferry and Ibach Tax Lot 2S1 35BA 90000) and only street intersections for other properties. All street intersections on Boones Ferry Road between Ibach and Norwood shall be spaced a minimum of 500 feet apart.

(9) 65TH AVENUE

(a) Nyberg to Borland:

There will be no new additional driveways.

(b) Borland Road to Sagert Street south city limits:

~~There will be no new driveways.~~ A street connection will be constructed across from Sagert Street to serve property to the east of 65th Avenue.

(10) BORLAND ROAD

(a) Between 65th and the Entrance to Bridgeport School:

In this section of roadway, as the residential properties develop, all accesses to Borland shall be limited to street intersections. These street intersections shall be spaced a minimum of 500 feet apart. All development in this area shall be interconnected so there are no dead-end entrances from Borland Road.

(b) Bridgeport School Entrance to Saum Creek:

As the residential properties develop, all accesses to Borland shall be limited to street intersections. These street intersections shall be spaced a minimum of 500 feet apart. All development in this area shall be interconnected so there are no dead-end entrances from Borland Road. Access to Prosperity Park Road is allowed.

(11) BRIDGEPORT ROAD

(a) 72nd Avenue to the West City Limits:

On the north side, the existing driveways will be allowed to remain. No new driveways will be permitted. ~~the Durham Quarry (2S113DB/100) access will be limited to three driveways. Two driveways shall align across from Hazel Fern Road and the REI driveway and the final driveway location at the southwest corner of the site shall be determined by the City Engineer. As part of the Durham Quarry development Finday Street in the City of Durham at the northwest corner of the site may be an access to the site.~~

On the south side the existing driveways will be allowed to remain. No new driveways will be permitted. ~~between Lower Boones Ferry Road and Hazel Fern Road no driveway access shall be permitted. From Hazel Fern to the City limits, A-1 Coupling (2S113DB/701) shall take access from Hazel Fern Road. The undeveloped property (2S113DB/600) shall have a joint access with REI (2S113DB/500). Bridgeport Office (Tax Lot 2S1-13DB/_400) and the driveway easement for Tax Lot 2S1-13DB/_401 shall combine driveways.~~

(12) 72ND AVENUE

(a) Bridgeport Road to North City Limits:

The existing driveways will be allowed to remain. No new driveways will be permitted. ~~On the east side no street or driveway access shall be permitted. Access to the Tri-Met Park and Ride shall be provided from a new driveway access serving the Borders Book development in the City of Tigard. On the west side no street or driveway access shall be permitted. Access to 72nd from the Durham Quarry development will be in the City of Tigard~~

(13) MARTINAZZI AVENUE

(a) Boones Ferry Road to Seneca Street:

On the west side, any redevelopment on the ~~Doyle (old Silvey) Haberman and Soft Touch Dentistry~~ Haberman and Soft Touch Dentistry property (2S1 24BC/_1500; and 1503) or the ~~Halstin (old post office unnamed retail development property with corner tenant Umpqua Bank)~~ Halstin (old post office unnamed retail development property with corner tenant Umpqua Bank) (2S1 24BC/_1502) shall result in combining these two driveways into one driveway on Martinazzi Avenue, or the Halstin retail development property shall take access from the ~~White public parking~~ Lot (old former Lot C) to Boones Ferry Road.

On the east side the existing driveway shall be removed and access shall be taken off of the Loop Road.

(b) Seneca Street to Nyberg Street:

No driveways shall be permitted. The raised center median prohibiting left turns in this area shall remain until driveways are removed. On the west side on Tax Lot 2S1 24BC 2702 ~~the~~ (Wells Fargo Bank), the driveway shall be removed and access taken from Seneca Street or Nyberg Street. On the east side the driveway for Tax Lot 2S1 14B/_2000 (Tualatin Center retail development Building 1) shall be removed and access taken from the Loop Road or Nyberg Street.

(c) Nyberg Street to Tualatin-Sherwood Road:

There shall be no access to Martinazzi Avenue.

(d) Tualatin-Sherwood Road to Warm Springs Street:
The only access shall be the existing Fred Meyer/Martinazzi Square driveway intersection.

(e) Warm Springs Street to Sagert Street:
There shall be no additional access granted. The only street intersection will be Mohawk Street.

(14) TUALATIN ROAD

(a) Boones Ferry Road to Hall Boulevard Extension Chinook Street:
On the west side is the Portland and & Western railroad Railroad (PNWR) tracks (the old Burlington Northern tracks). There will be no access to Tualatin Road across the tracks.

On the east side a driveway access may be permitted for undeveloped Tax Lot 2S1 24BC/ 300. The existing driveways for Tax Lots 2S1 24BC/ 100 & and 200 (Tualatin Community Park) may remain.

Hall Boulevard Extension to Chinook Street:

On the north and east side no new driveway access shall be permitted. Redevelopment shall require access to be taken from 84th Avenue or Cherokee Street.

On the south and west side, no new driveway accesses shall be permitted. Access related to redevelopment of 2S123/ 100 shall be determined by the City Engineer.

(b) Chinook Street to Herman Road:
No new driveway accesses shall be permitted. On the north side any development or redevelopment of the Tualatin Country Club (2S1 14D/ 500) shall require a street or driveway connection aligning with 90th Avenue. Redevelopment of Tax Lots 2S1 23BA/ 2403 or 2S123BA/4800 shall require access to Cheyenne Way connecting to Tualatin Road.

On the south side of this road is the Portland and & Western railroad Railroad (PNWR) tracks (old SP tracks). There will be no access to Tualatin Road across the tracks except for 90th Avenue and the Durametal (Tax Lot 2S1 23BD/ 800 (multi-tenant industrial building)) driveway.

(14) SAGERT STREET

(a) Martinazzi Avenue to 65th Avenue

No new driveways or streets shall be allowed, except the City Engineer may allow one driveway from the SE corner lot of Sagert and Martinazzi. This driveway may be restricted to right-in, right-out.

~~HALL BOULEVARD~~

~~Tualatin Road to North City Limits:~~

~~No driveway access shall be allowed to the Hall Boulevard extension. A street connection shall be made for the Lower Boones Ferry Road/Tualatin Road extension.~~

(15) LEVETON DRIVE

(a) 1408th Avenue to 1018th Avenue:

On the north side of Leveton Drive, JAE (2S122B/200) shall align a driveway across from 118th Avenue and be permitted a second driveway approximately 50 feet from their east property line. Novellus (2S122AA/500 and 2S122AB/100) shall be permitted three driveways located approximately 25 feet and 950 feet from the west property line for Tax Lot 100 and 600 feet west of 108th Avenue for Tax Lot 500.

On the south side, Phight Inc. (2S122/300) shall be allowed a driveway aligned with the west Novellus (2S122AB/100) driveway and a driveway adjacent to their east property line. Fujimi (2S122/400) shall be allowed a driveway adjacent to their west property line and east property line. Tofle (2S122AD/400) shall be allowed a driveway aligning across from the Novellus (2S122AA/500) driveway and a second driveway approximately 260 feet west of 108th Avenue.

(b) 118th Avenue to 124th Avenue:

The existing driveways will be allowed to remain. No new driveways will be permitted.

(16) 108TH AVENUE

(a) Leveton Drive to Herman Road:

On the west side, Tofle (2S122AD/400) shall take access from Leveton Drive. The undeveloped property (2S122AD/500, 1300, 1400 and 1500) shall be allowed one driveway onto 108th Avenue. The old ~~Shulzts~~ Clearwater site (2S122AD/800) and then Northwest Pipe and Metal Fab (2S122AD/600 ~~&and~~ 700) shall provide a joint driveway access. The Wahco Inc. property (2S122AD/900) shall take access from Herman Road.

On the east side, the DOT Inc.- site shall have a driveway that aligns with Leveton Drive. The City Operations Center (2S122AD/200 ~~&and~~ 300) will be permitted two driveways at locations to be determined by the City Engineer.

(17) HERMAN ROAD

(a) ~~108th~~Teton Avenue to ~~Teton~~108th Avenue:

On the north side, the existing driveways will be allowed to remain. No new driveways will be permitted. the City Operations Center (2S122AD/200 & 2300) will be permitted one driveway approximately midpoint along their Herman Road frontage. Airifco (2S123B/600) will be permitted one driveway adjacent to their west property line.

On the south side is the Portland and Western railroad Railroad (PNWR) tracks (the old SP tracks). There will be no access to Herman Road across the tracks except for a shared driveway between the Kem Equipment (2S122AD/800) and Marshall Property (2S122AD/1000) located on the common property line. The Marshall Property (2S123BC/1000) shall take access from Teton Avenue.

(b) ~~Teton~~108th Avenue to 12418th Avenue:

On the north side the existing driveways will be allowed to remain. No new driveways will be permitted.

On the south side is the Portland & Western Railroad (PNWR) tracks. There will be no access to Herman Road across the tracks.

(c) 118th Avenue to 124th Avenue:

On the north side the existing driveways will be allowed to remain. No new driveways will be permitted.

On the south side is the Portland & Western Railroad (PNWR) tracks. There will be no access to Herman Road across the tracks.

(18) 90TH AVENUE

(a) Tualatin Road to Tualatin-Sherwood Road:

The existing driveways will be allowed to remain. No new driveways will be permitted.

(19) AVERY STREET

(a) Teton Road to Tualatin-Sherwood Road:

The existing driveways will be allowed to remain. No new driveways will be permitted.

(20) TETON AVENUE

(a) Tualatin Road to Herman Road:

The existing driveways will be allowed to remain. No new driveways will be permitted

(b) Herman Road to Tualatin-Sherwood Road:

The existing driveways will be allowed to remain. No new driveways will be permitted.

(c) Tualatin-Sherwood Road to Avery Street:

The existing driveways will be allowed to remain. No new driveways will be permitted.

~~LOWER BOONES FERRY ROAD EXTENSION WEST TO TUALATIN ROAD~~

~~Boones Ferry Road to Tualatin Road:~~

~~Driveway or street locations during redevelopment of the properties west of Boones Ferry Road and east of the river shall be determined by the City Engineer. A street connection shall be at the Hall Boulevard extension. Driveway or street access for properties along Chinook Street will be determined by the City Engineer at the time of development or redevelopment.~~

Section 29. TDC 75.140 is amended to read as follows:

(a) Major Collectors. Direct access from newly constructed single family homes, duplexes or triplexes shall not be permitted. As major collectors in residential areas are fully improved, or adjacent land redevelops, direct access should be relocated to the nearest local street where feasible.

(b) Minor Collectors. Residential, commercial and industrial driveways where the frontage is greater or equal to 70 feet are permitted. Minimum spacing at 100 feet. Uses with less than 50 feet of frontage shall use a common (joint) access where available. ~~Except for collectors designated Cs&p and Cs&2p, direct access from newly constructed single family homes, duplexes or triplexes shall not be permitted. Except for collectors designated Cs&p and Cs&2p, as minor collectors in residential areas are fully improved, or adjacent land redevelops, direct access should be relocated to the nearest local street where feasible.~~

(c) If access is not able to be relocated to the nearest local street, the City Engineer may allow interim access in accordance with 75.090 of this chapter to provide for the eventual implementation of the overall access plan.

Section 30. TDC 75.200 is deleted in its entirety:

Section 31. Section 74.425 is added to the TDC to read as follows:

(1) Street design standards are based on the functional and operational characteristics of streets such as travel volume, capacity, operating speed, and safety. They are necessary to ensure that the system of streets, as it develops, will be capable of safely and efficiently serving the traveling public while also accommodating the orderly development of adjacent lands.

(2) The proposed street design standards are shown in Figures 72A through 72G. The typical roadway cross sections comprise the following elements: right-of-way, number of travel lanes, bicycle and pedestrian facilities, and other amenities such as landscape strips. These figures are intended for planning purposes for new road construction, as well as for those locations where it is physically and economically feasible to improve existing streets.

(3) In accordance with the Tualatin Basin Program for fish and wildlife habitat it is the intent of Figures 74-2A through 74-2G to allow for modifications to the standards when deemed appropriate by the City Engineer to address fish and wildlife habitat.

(4) All streets shall be designed and constructed according to the preferred standard. The City Engineer may reduce the requirements of the preferred standard based on specific site conditions, but in no event will the requirement be less than the minimum standard. The City Engineer shall take into consideration the following factors when deciding whether the site conditions warrant a reduction of the preferred standard:

(a) Arterials:

- (i) Whether adequate right-of-way exists
- (ii) Impacts to properties adjacent to right-of-way
- (iii) Current and future vehicle traffic at the location
- (iv) Amount of heavy vehicles (buses and trucks).

(b) Collectors:

- (i) Whether adequate right-of-way exists
- (ii) Impacts to properties adjacent to right-of-way
- (iii) Amount of heavy vehicles (buses and trucks)
- (iv) Proximity to property zoned manufacturing or industrial.

(c) Local Streets:

(i) Local streets proposed within areas which have environmental constraints and/or sensitive areas and will not have direct residential access may utilize the minimum design standard. When the minimum design standard is allowed, the City Engineer may determine that no parking signs are required on one or both sides of the street.

Section 36. TDC Chapter 11 is deleted in its entirety and a new Chapter 11 is added to the TDC to read as follows:

Section 11.600.

(1) The Tualatin Transportation System Plan (TSP) establishes a long-range vision for the combination of projects, programs, and policies that will achieve Tualatin's transportation goals. To do this, the TSP looks at the needs of its residents, businesses, employees, and visitors – now (Year 2012), and what is expected for the future (Year 2035). TSPs are required by the state of Oregon for all cities with populations greater than 2,500 people. The current TSP (December 2012) is a major update of the TSP that was adopted in 2001, with analyses completed in 2000. The TSP considers the diverse needs of all users of the City's transportation network, and sets out recommendations that will serve the needs of transit riders, bicyclists, pedestrians, freight traffic, and drivers.

The TSP has been prepared in compliance with state, regional, and local plans and policies, including the Oregon Highway Plan (OHP), the state Transportation Planning Rule (TPR), Metro's Regional Transportation Plan (RTP), Metro's Regional Transportation Functional Plan (RTFP), Washington and Clackamas Counties Transportation System Plans, and Tualatin's Comprehensive Plan. The TSP presents a vision specific to the City's transportation future, while remaining consistent with these state, regional, and local plans. Plan elements will be implemented by the City, private developers, and regional, or state agencies.

(2) Regulatory Requirements. The TPR (OAR 660-012), developed by the state Department of Land Conservation and Development (DLCD) in accordance with state law, and Oregon Revised Statute (ORS) 197.712 guide preparation of the TSP and require that jurisdictions develop the following:

- (a) A road plan for a network of arterial and collector roads
- (b) A public transit plan
- (c) A bicycle and pedestrian plan
- (d) An air, rail, water, and pipeline plan

(e) A transportation financing plan

(f) Policies and ordinances for implementing the TSP

The TPR requires that alternate travel modes including cycling, walking, and transit, be given equal consideration with automobile travel and states that reasonable effort must be applied in the development and enhancement of alternate modes in Tualatin's future transportation system. Local jurisdictions must also coordinate their plans with relevant state, regional, and county plans and amend their own ordinances to implement the TSP.

Metro also requires that TSPs meet certain requirements that have been adopted in the RTP and RTFP. Local TSPs must:

(a) Establish an arterial street network, considering Metro's street design concepts and include a conceptual map of new streets

(b) Implement access management standards

(c) Include policies, standards, and projects that connect to transit stops

(d) Develop a transit plan consistent with the regional transit functional plan

(e) Develop pedestrian, bicycle, freight, parking, and transportation system management plans

(f) Ensure that regional transportation needs are incorporated into the TSP

(g) Include regional transportation goals for mode share and vehicles miles traveled

(3) The TSP Technical Memorandum, December 2012, is adopted by reference as a supporting technical document to the Tualatin Development Code (TDC). The TSP Technical Memorandum (December 2012) was prepared in compliance with the requirements of the TPR and includes the following chapters and appendices:

Chapter 1:	Introduction
Chapter 2:	Modal Plans
Chapter 3:	Implementation
	Policy and Code Language
Appendix A:	Plan and Policy Review
Appendix B:	Existing Conditions and Deficiencies
Appendix C:	Future Transportation Conditions
Appendix D:	Alternatives Analysis
Appendix E:	Transportation Funding and Improvement Costs

- Appendix F: Implementing Ordinances
- Appendix G: Public Involvement Process
- Appendix H: Bicycle and Pedestrian

The Modal Plans element (Chapter 2) of the TSP Technical Memorandum (December 2012) addresses those components necessary for development of the future transportation network. Chapter 2 of the TSP Technical Memorandum (December 2012) was adopted as the transportation element of the Tualatin Community Plan in the Spring of 2013. This chapter is intended to provide policy guidance for transportation improvements, which are then implemented by the TDC.

(4) Plan Process. Tualatin began the process to update the TSP in 2011. Staff organized their work into four basic steps.

Step 1. The team (of staff and consultants) identified existing and future needs, opportunities, project goals, and objectives. City staff and the consultant project team assembled existing and collected new data, analyzed the data to identify deficiencies and opportunities, and attended a number of community events to ask about issues with the transportation system to form an understanding of transportation problems to be addressed in the TSP. Additionally, the project website included an issues map where visitors to the website could identify transportation problems within the City.

Step 2. Next the team created a long list of potential solutions and screened and evaluated potential solutions to see how ideas met project goals and objectives. An open house, several Transportation Task Force (TTF; refer to TDC 11.600) meetings, and Working Group meetings helped create and/or evaluate potential solutions. Throughout each of these steps, the project team engaged the community to ensure that each element was appropriate for Tualatin.

Step 3. The team prepared the draft recommendations for projects to be included into the TSP, refining a number of recommendations for the more complex transportation needs, and prioritizing the project recommendations to help both the City and the community define which projects and programs should be implemented first.

Step 4. Finally the team developed the draft and final TSPs for City adoption. This process focused on compiling all recommendations into the TSP document, and coordinating with relevant stakeholders in reviewing the TSP for completeness and consistency. These stakeholders included the community, City Council, Tualatin Planning Commission (TPC), Tualatin Parks Advisory Committee (TPARK), Washington County, Metro, Oregon Department of Transportation (ODOT), Clackamas County, adjacent cities, and the state's DLCD.

(5) Study Area. In December 2002, Metro expanded the Portland Urban Growth Boundary (UGB). This expansion included lands bordering Tualatin's Planning Area boundary that are intended to develop in the future for industrial uses. Following studies of impacts of these expansions, the city's TSP (2001) was amended to incorporate these new lands.

(a) The City of Tualatin, in conjunction with ODOT, initiated a study of a 23 acre area south of Highway 99W and west of SW Cipole Road in 2004. The Northwest Tualatin Concept plan addressed the impacts of developing this area for industrial uses. A technical analysis was prepared for the Concept Plan, following 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 an 11-member Technical Advisory Committee (TAC) that met four times during the planning process. The TAC included representatives from the City of Tualatin, ODOT, Washington County, Bonneville Power Administration (BPA), Metro, U.S. Fish and Wildlife Service (representing the Tualatin River National Wildlife Refuge), Portland General Electric (PGE), Clean Water Services (CWS), and TriMet. Mailing to stakeholders and a public open house were used to obtain community feedback on the draft plan. The TSP (2001) amendments relating to the Northwest Tualatin Concept Plan area were accepted by the City Council on June 13, 2005.

(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. In 2010, the City analyzed this area plus an additional 183-acres south of the Concept Plan area. 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 31-member TAC that met 12 times during the planning process. The TAC included representatives from the Cities of Tualatin, Sherwood, and Wilsonville; Metro; ODOT; DLCD; Washington County; PGE; BPA; CWS; Oregon Department of Geology and Mineral Industries; Coffee Creek Correctional Facility; Tualatin Valley Fire & Rescue (TVF&R); 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 four public open houses were used to obtain community feedback on the draft plan. The TSP (2001) amendments relating to the Southwest Tualatin Concept Plan area were accepted by the City Council on October 11, 2010.

(c) The study area for the current Tualatin TSP (2012) is comprised of the Tualatin Planning Area boundary, with one addition - the Basalt Creek planning area between Tualatin and Wilsonville. This area outside of the Planning Area Boundary, but within the study area, was included because of the transportation impact that it could have on the City's transportation network associated with the potential development of residential and employment areas. The study area is shown on several of the TSP's figures, including Figure 11-1 Functional Classification Plan.

(6) Public Involvement. The TSP planning process actively engaged the citizens of Tualatin in the production of its TSP. Residents, business owners, employees, and agency partners were encouraged to participate and were provided with multiple ways to share their thoughts - from initial goal development and issue identification to evaluation and screening. The public involvement plan outlined a thorough outreach process, making it easy and fun for the public to share ideas. The process provided meaningful ways to influence outcomes and took advantage of existing communication networks to reach more people.

(a) Transportation Task Force. The public involvement plan established a clear decision-making framework for the TSP. The Transportation Task Force (TTF), with input from Working Groups, advised the Tualatin Planning Commission (TPC). The TPC then made a recommendation to the City Council, which then adopted the final TSP Technical Memorandum (December 2012) and any changes to the City's Code. In addition, the TPARK made recommendations on the bicycle and pedestrian elements to the City Council. Each of these organizations received regular project updates from City staff throughout the process and each had representative members on the TTF. These groups were given the opportunity to provide their recommendation before the TTF decisions were forwarded to TPC and the City Council.

The TTF was formed in November 2011 for the purpose of advising the TPC and City Council about the needs and concerns of the community with regard to transportation. The City Council Citizen Involvement Committee selected TTF members carefully to be representative of neighborhoods, the business community, and the interests of Tualatin's advisory committees. Members and alternates were selected from a pool of applications. Neighboring communities, counties, TVF&R, ODOT, Metro, and TriMet also had representatives on the TTF.

Additional information about the TTF, Working Groups, and other aspects of the public involvement process for the TSP are included in Appendix G of the TSP Technical Memorandum (December 2012).

Section 11.610

(1) Over a span of three meetings the TTF prepared a vision for the TSP, conveyed as a set of goals and objectives. In early 2012 they adopted seven principal goals organized into the following goal categories:

- Goal 1: Access and Mobility
- Goal 2: Safety
- Goal 3: Vibrant Community
- Goal 4: Equity
- Goal 5: Economy
- Goal 6: Health and the Environment
- Goal 7: Ability to be Implemented

These goals and their associated objectives were also discussed by the community at the first open house in February 2012 and by TPC, TPARK, and City Council. The full description of goals and objectives served as the basis for the TSP's evaluation framework. This means that all TSP recommendations were tied back to the underlying vision as established by these groups.

(2) Goal 1: Access and Mobility. Maintain and enhance the transportation system to reduce travel times, provide travel-time reliability, provide a functional and smooth transportation system, and promote access for all users.

Objectives:

- (a) Improve travel time reliability/provide travel information for all modes including freight and transit.
- (b) Provide efficient and quick travel between points A and B.
- (c) Provide connectivity within the City between popular destinations and residential areas.
- (d) Accommodate future traffic, bicycle, pedestrian, and transit demand.
- (e) Reduce trip length and potential travel times for motor vehicles, freight, transit, bicycles, and pedestrians.
- (f) Improve comfort and convenience of travel for all modes including bicycles, pedestrians, and transit users.
- (g) Increase access to key destinations for all modes.

(3) Goal 2: Safety. Improve safety for all users, all modes, all ages, and all abilities within the City of Tualatin.

Objectives:

(a) Address known safety locations, including high-crash locations for motor vehicles, bicycles, and pedestrians.

(b) Address geometric deficiencies that could affect safety including intersection design, location and existence of facilities, and street design.

(c) Ensure that emergency vehicles are able to provide services throughout the City to support a safe community.

(d) Provide a secure transportation system for all modes.

(4) Goal 3: Vibrant Community. Allow for a variety of alternative transportation choices for citizens of and visitors to Tualatin to support a high quality of life and community livability.

Objectives:

(a) Produce a plan that respects and preserves neighborhood values and identity.

(b) Create a variety of safe options for transportation needs including bicycles, pedestrians, transit, freight, and motor vehicles.

(c) Provide complete streets that include universal access through pedestrian facilities, bicycle facilities, and transit on some streets.

(d) Support a livable community with family-friendly neighborhoods.

(e) Maintain a small-town feel.

(5) Goal 4: Equity. Consider the distribution of benefits and impacts from potential transportation options, and work towards fair access to transportation facilities for all users, all ages, and all abilities.

Objectives:

(a) Promote a fair distribution of benefits to and burdens on different populations within the City (that is, low-income, transit-dependent, minority, age groups) and different neighborhoods and employment areas within the City.

(b) Consider access to transit for all users.

(6) Goal 5: Economy. Support local employment, local businesses, and a prosperous community while recognizing Tualatin's role in the regional economy.

Objectives:

- (a) Support a vibrant city center and community, accessible to all modes of transportation.
- (b) Support employment centers by providing transportation options to major employers.
- (c) Increase access to employment and commercial centers on foot, bike, or transit.
- (d) Consider positive and negative effects of alternatives on adjacent residential and business areas.
- (e) Accommodate freight movement.
- (f) Facilitate efficient access for goods, employees, and customers to and from commercial and industrial lands, including access to the regional transportation network.

(7) Goal 6: Health/Environment. Provide active transportation options to improve the health of citizens in Tualatin. Ensure that transportation does not adversely affect public health or the environment.

Objectives:

- (a) Provide active transportation options to area schools to reduce childhood obesity.
- (b) Promote active transportation modes to support a healthy public and children of all ages.
- (c) Provide interconnected networks for bicyclists and pedestrians throughout the City for all age groups.
- (d) Consider air quality effects of potential transportation solutions. Protect park land and create an environmentally sustainable community.
- (e) Consider positive and negative effects of potential solutions on the natural environment (including wetlands and habitat areas).

(8) Goal 7: Ability to Be Implemented. Promote potential options that are able to be implemented because they have community and political support and are likely to be funded.

Objectives:

- (a) Promote fiscal responsibility and ensure that potential transportation system options are able to be funded given existing and anticipated future funding sources.
- (b) Evaluate potential options for consistency with existing community, regional, and state goals and policies.
- (c) Strive for broad community and political support.
- (d) Optimize benefits over the life cycle of the potential option.
- (e) Consider transportation options that make the best use of the existing network.
- (f) Conduct the planning process with adequate input and feedback from citizens in each affected neighborhood.

Section 11.620

(1) A city's functional classification plan defines the intended operations and character of roadways within the overall transportation system including standards for roadway and right-of-way width, access spacing, and pedestrian and bicycle facilities. The City of Tualatin's functional classification system applies to roadways owned by the City, the County, and the State, and includes principal arterials, major arterials, minor arterials, major collectors, minor collectors, connector, and local roads. Figure 11-1 presents the updated functional classification plan for the City of Tualatin.

The arterial roadways carry a high number of vehicles including transit and freight vehicles, and provide mobility with few opportunities for local access. Collectors assemble traffic from a neighborhood or district and deliver it to the closest arterial street. Collectors serve shorter trip lengths than arterials and have more local access opportunities. Both arterials and collectors within Tualatin are owned by a variety of agencies including the City, ODOT, and Clackamas and Washington Counties. The roadway owners are responsible for maintenance and upkeep on the roadways and they make decisions on upgrades to their facilities. TSP Technical Memorandum (December 2012) describes the functional classifications and the purpose they are intended to serve in more detail; Appendix A, Plan and Policy Review, of the TSP Technical Memorandum provides a detailed description of the various policies associated with roadway ownership.

There are a number of existing freight and truck routes through the City designated by the City, the State, and the Federal government. These routes have specific design criteria and mobility standards to ensure that these roadways serve freight traffic.

(2) Functional Classification Policies. Functional classification policies support the City's transportation goals and objectives included in TDC 11.610. Policies help provide direction for roadways and roadway classifications.

(a) Functional Classification Policy 1: Major and minor arterials will comprise the main backbone of the freight system, ensuring that freight trucks are able to easily move within, in, and out of the City.

(b) Functional Classification Policy 2: Continue to construct existing and future roadways to standard when possible for the applicable functional classification to serve transportation needs within the City.

(3) Street Design Standards. Street design standards by functional classification are included in TDC Section 74.425.

(4) The RTP's Regional Street Design System describes typical features of its street design designations. For comparison purposes, Metro's Regional Street Design System map has been recreated in Figure 11-2. The Tualatin TSP's street design standards for roadways shown on the RTP Regional Street Design System map are generally in conformance with the RTP's concepts, particularly in the areas of pedestrian and bicycle lanes, landscape strips, and medians or center turn lanes.

Section 11.630

(1) The street system modal plan consists of several sections: a listing of street urban upgrades and new streets, other intersection-specific or non-capacity streets projects, access management policies, and traffic operation standards. This modal plan is included in its entirety in the TSP Technical Memorandum (December 2012) and pertinent sections are included in this section of TDC Chapter 11.

(2) Summary of Limitations and Needs of Street System. Key needs identified for the street system include:

(a) Improved Roadway connectivity. New roadway connections should be explored to improve east-west connectivity south of SW Tualatin-Sherwood Road and north-south regional connectivity. Metro RTP policies related to a complete street system identify one-mile spacing between major arterial streets with collector streets or minor arterials spaced a half-mile apart.

(b) Improved travel time along congested corridors. Focus on reducing vehicle delay on key corridors.

(c) Intersection improvements. Address intersection delay and intersection issues in congested areas.

(d) Upgrading roadway geometries. City design standards for roadway width, sidewalks, and bicycle facilities should be followed where specific deficiencies have been identified.

(e) Additionally, safety is a concern for the community. Safety issues were identified at the following intersections:

(i) SW Tualatin-Sherwood Road and SW Boones Ferry Road

(ii) SW Nyberg Street and I-5 southbound off ramps.

(3) Roadway Policies. The following establish the City's policies on roadways.

(a) Roadway Policy 1: Implement design standards that provide clarity to developers while maintaining flexibility for environmental constraints.

(b) Roadway Policy 2: Ensure that street designs accommodate all anticipated users including transit, freight, bicyclists and pedestrians, and those with limited mobility.

(c) Roadway Policy 3: Work with Metro and adjacent jurisdictions when extending roads or multi-use paths from Tualatin to a neighboring City.

(4) Local Streets Plan. The RTP calls for cities to identify all contiguous areas of vacant and re-developable parcels of five or more acres planned or zoned for residential or mixed-use development and to prepare a conceptual new streets plan map. Figure 11-3 presents the City of Tualatin's Local Streets Plan. The intent of this map is to identify the locations of future street connections and desired connections within future development that promote a connected street system. The endpoints of the connections should be considered fixed, unless the Community Development Director or their designee determines that an alternate connection point is preferable due to safety, operations, improved connectivity concerns, or environmental impacts. The routes connecting endpoints may vary, as long as a reasonably direct route between the two points is provided.

(5) Access Management. Access management is important to maintain traffic flow and ensure safety on the City's arterial street network, including SW Tualatin-Sherwood Road, Oregon Highway 99W (OR 99W), and other high-traffic routes. Limiting the number of points where traffic can enter and exit reduces potential conflict points, improves roadway performance, and reduces the need for capacity expansion. The City manages access through Chapter 75 of the TDC; that chapter details where access is permitted on arterial and collector roads within the City. Tualatin must coordinate with Washington and Clackamas Counties and ODOT to manage access on roads the City does not own, including SW Tualatin-Sherwood Road, SW Cipole Road, SW 65th Avenue, SW Borland Road, and sections of SW Boones Ferry Road. Chapter

75 of the TDC, most recently updated in 2012, has specific access standards for each arterial road within Tualatin. It provides recommendations for future changes on specific roads, as well as potential solutions for access issues.

(a) Access Management Policies. Access management policies are:

(i) Access Management Policy 1: No new driveways or streets on arterial roadways within the City, except where noted in the TDC, Chapter 75, usually when no alternative access is available.

(ii) Access Management Policy 2: Where a property abuts an arterial and another roadway, the access for the property shall be located on the other roadway, not the arterial.

(iii) Access Management Policy 3: Adhere to intersection spacing included in Chapter 75 of the TDC.

(iv) Access Management Policy 4: Limit driveways to right-in, right-out (where appropriate) through raised medians or other barriers to restrict left turns.

(v) Access Management Policy 5: Look for opportunities to create joint accesses for multiple properties, where possible, to reduce the number of driveways on arterials.

(vi) Access Management Policy 6: No new single-family home, duplex or triplex driveways on major collector roadways within the City, unless no alternative access is available.

(vii) Access Management Policy 7: On collector roadways, residential, commercial and industrial driveways where the frontage is greater or equal to 70 feet are permitted. Minimum spacing at 100 feet. Uses with less than 50 feet of frontage shall use a common (joint) access where available.

(6) Traffic Operations Standards. This section includes a discussion of standards included in the OHP, ODOT's Highway Design Manual (HDM), and the TPR and City documents for local roadways. Based on the preferred system for operational analysis, there are four intersections that do not meet jurisdictional standards after mitigation strategies are included. These intersections that experience operational constraints are in the SW Lower Boones Ferry Road/I-5 interchange area, and are due to the additional motor vehicle trips associated with the widening of SW Boones Ferry Road from SW Martinazzi Avenue to SW Lower Boones Ferry Road.

The first mitigation strategies developed explored transportation system management techniques (maximizing operations at intersections through signal timing adjustments and/or phasing adjustments). If system management techniques did not

achieve acceptable jurisdictional operations, localized capacity improvements were explored (for example, a new turn pocket). Generally these improvements allowed for adequate signal operations under a mitigated scenario.

There were some intersections located in the downtown core area that were not able to meet jurisdictional standards without the implementation of significant capacity and/or roadway widening improvements. These types of major infrastructure improvements were deemed to be too impactful to the downtown core and were not included in the final preferred system improvements. The downtown Tualatin area is designated a Town Center by Metro, and using that designation, Town Centers are allowed to not meet jurisdictional standards. Alternate standards for Town Centers in the RTP are based on a two-hour peak hour. The standard volume to capacity ratio (v/c) for the first peak hour is 1.1, and for the second peak hour is 0.99. These intersections meet the RTP standards, and there is no need for additional alternate mobility standards.

Section 11.640.

(1) Public transit in Tualatin is envisioned to be multi-faceted by including local and express bus service, commuter rail, potential high capacity transit, and local transit shuttle services. In addition, the community's vision for public transit includes improvements in the quality of transit service, as well as land uses that better complement and encourage use of transit in downtown Tualatin. Figure 11-5 presents the updated transit system for the City of Tualatin.

(2) Summary of Limitations and Needs for Transit. TriMet does not provide transit service within all areas of Tualatin or on all major corridors. No transit service is provided on SW Tualatin-Sherwood Road or SW Tualatin Road, and many residents in the western portion of the City live more than a mile from the nearest transit line. Many residents who do live near a bus line are not served by transit at regular intervals during the day. According to the Conceptual Linking Tualatin Plan (Draft 2012), over 11,000 workers and over 5,000 households (over half of the people living and working in the city) lack regular transit service within a quarter mile of where they live or work. Because of the limitations of service during off-peak hours, noncommuting trips may be more difficult to complete using transit in Tualatin. Community feedback indicated the following specific needs for transit:

- (a) Service connecting the west side of Tualatin to the downtown core
- (b) Park-and-rides in the west and south areas of Tualatin
- (c) Extended service hours, including weekend service
- (d) More direct connections to places other than downtown Portland.

Additional needs for transit stops include direct and safe access to transit stops and bicyclist and pedestrian amenities at stops, especially where transit riders are able to transfer lines or modes.

(3) Transit Policies. The City of Tualatin's policies on public transit are as follows:

(a) Transit Policy 1: Partner with TriMet to jointly develop and implement a strategy to improve existing transit service in Tualatin.

(b) Transit Policy 2: Partner with the Tualatin Chamber of Commerce to support grant requests that would expand the Tualatin Shuttle services.

(c) Transit Policy 3: Partner with TriMet, Metro, and neighboring communities to plan the development of high-capacity transit in the Southwest Corridor, as adopted in the Metro High Capacity Transit System Plan.

(d) Transit Policy 4: Partner with TriMet, Metro, and neighboring communities to plan development of high-capacity transit connecting Tualatin and Oregon City, as adopted in the Metro High Capacity Transit System Plan.

(e) Transit Policy 5: Coordinate with ODOT and neighboring communities on conversations related to Oregon Passenger Rail between Portland and Eugene.

(f) Transit Policy 6: Develop and improve pedestrian and bicycle connections and access to transit stops.

(g) Transit Policy 7: Encourage higher-density development near high-capacity transit service.

(h) Transit Policy 8: Metro in the RTP calls for increased WES service frequency. The City will coordinate with TriMet, Metro, and ODOT to explore service frequency improvements and the possible inclusion of a second WES station in south Tualatin.

(i) In addition to the transit policies included here, Bicycle and Pedestrian Policies 7 and 8, included in TDC 11.650, are applicable to transit.

Section 11.650.

(1) This modal plan describes pedestrian and bicycle improvements to comfortably and safely accommodate bicyclists and pedestrians within the City. These include multi-use paths, specific bicycle and pedestrian improvements, and street

upgrades. Figure 11-4 presents the updated bicycle and pedestrian system for the City of Tualatin.

(2) Summary of Limitations and Needs for Bicycle and Pedestrian Facilities. This section summarizes limitations and needs for bicycle and pedestrian facilities, and multi-use paths. A full description of existing conditions and deficiencies for the bicycle, pedestrian, and pathway system can be found in Appendix B of the TSP Technical Memorandum (December 2012).

(a) Bicycle Facility Needs. Existing bicycle facilities in Tualatin have a few gaps and challenging connections:

(i) Difficult left-turn maneuvers

(ii) Difficult areas with low bike visibility

(iii) Bike lanes outside of turn lanes

(iv) Obstacles within the bike lanes

(v) Gaps in the network

(vi) In addition to these needs, there are a number of high-crash locations. Most crashes result in an injury to the bicyclist, and most occur on a dry roadway surface in daylight conditions. High-crash locations include SW Boones Ferry Road and SW Tualatin-Sherwood Road, as well as the SW Nyberg Road interchange ramps at I-5.

(b) Pedestrian Facility Needs. Pedestrian facility needs include:

(i) Fill sidewalk gaps on arterials and collector streets

(A) Sections of SW Herman Road

(B) Sections of SW Grahams Ferry Road

(C) Sections of SW Boones Ferry Road

(D) SW Blake Street between SW 105th and SW 108th Avenues

(E) SW Sagert Street overpass over I-5

(F) SW 105th Avenue between SW Paulina Drive and SW Blake Street

(ii) Narrow or obstructed sidewalks

(iii) Wide or angled crosswalks at intersections

(iv) Difficult crossing on major roadways (SW Boones Ferry Road, SW Tualatin-Sherwood Road, and roadways in the downtown core)

(v) Most of the pedestrian crashes reported in the 5-year crash study timeframe occurred on SW Boones Ferry Road, generally when a vehicle failed to yield for pedestrians. Most crashes occurred when a vehicle was turning.

(c) Multi-use Path Needs. Additional bicycle and pedestrian connections over the Tualatin River are needed to connect with existing regional paths, as well as to provide alternate routes to the one existing Ki-a-Kuts bridge that is exclusively for bicycles and pedestrians (from Tualatin Community Park to Durham City Park in Durham). Additionally, many of the existing multi-use paths are fragmented and do not connect; signs and other wayfinding guides are needed to inform bicyclists or pedestrians how to move among the various pathways, and from the pathways to on-street facilities. The planned multi-use path network is only half constructed, once the system is complete, the multi-use path network will be more comprehensive.

(3) Bicycle and Pedestrian Policies. The City of Tualatin's policies on bicycle and pedestrian facilities are as follows:

(a) Bicycle and Pedestrian Policy 1: Support Safe Routes to Schools (SRTS) for all Tualatin schools

(b) Bicycle and Pedestrian Policy 2: Work with partner agencies to support and build the Ice Age Tonquin Trail

(c) Bicycle and Pedestrian Policy 3: Allow wider sidewalks downtown for strolling and outdoor cafes

(d) Bicycle and Pedestrian Policy 4: Add benches along multi-use paths for pedestrians throughout the City (especially in the downtown core)

(e) Bicycle and Pedestrian Policy 5: Develop and implement a toolbox, consistent with Washington County, for mid-block pedestrian crossings

(f) Bicycle and Pedestrian Policy 6: Implement bicycle and pedestrian projects to help the City achieve the regional non-single-occupancy vehicle modal targets in Table 11-1.

(g) Bicycle and Pedestrian Policy 7: Implement bicycle and pedestrian projects to provide pedestrian and bicycle access to transit and essential destinations for all mobility levels, including direct, comfortable, and safe pedestrian and bicycle routes

(h) Bicycle and Pedestrian Policy 8: Ensure that there are bicycle and pedestrian facilities at transit stations

(i) Bicycle and Pedestrian Policy 9: Create on- and off-street bicycle and pedestrian facilities connecting residential, commercial, industrial, and public facilities such as parks, the library, and schools

(j) Bicycle and Pedestrian Policy 10: Create obvious and easy to use connections between on- and off-street bicycle and pedestrian facilities, and integrate off-street paths with on-street facilities.

(4) Bicycle Boulevards. Currently, there are no existing bicycle boulevards in Tualatin, though Washington County has bicycle boulevard policies and design standards.

Bicycle boulevards are roadways that use a variety of design treatments to reduce vehicle speeds so that motorists and bicyclists generally travel at the same speed, to create a safer and more-comfortable environment for all users. Bicycle boulevards may include a variety of applications ranging from minor street signing enhancements (such as shared lane markings) to larger scale projects (for example, bike-only access at intersections, traffic diverters). Boulevards also incorporate treatments to facilitate safe and convenient crossings where bicyclists must traverse major streets. Traffic controls along a boulevard may assign priority to through cyclists while encouraging through vehicle traffic to use alternate parallel routes.

Bicycle boulevards work best in well-connected street grids, where riders can follow intuitive and reasonably direct routes. Boulevards also work best when higher-order parallel streets exist to serve through vehicle traffic. Bicycle boulevards are generally located on streets with lower traffic volumes and vehicle speeds, such as minor collectors or local streets passing through residential neighborhoods. Typically a bicycle boulevard would be located on a street where vehicles travel less than 30 miles per hour and average daily traffic volume is less than 3,000 vehicles (in both directions).

Proposed bicycle boulevards in Tualatin are shown on Figure 11-4. These are all low volume, low speed streets that connect neighborhoods with roadways and trails where bicycle infrastructure investments have been made. As a short-term action, the City should consider signing these roadways as bicycle routes, and monitor usage on an annual basis. As bicycle usage increases, and bicyclists and drivers become more used to sharing travel lanes, further investments could be considered to enhance safety for bicyclists.

Section 11.660.

(1) Efficient truck movement plays a critical role in the economic wellbeing and development of Tualatin. Trucks must be able to access commercial, industrial,

manufacturing, distribution, and other employment areas both in Tualatin and connecting to the regional system. Future commercial/industrial uses are expected to be located consistent with the land uses identified in the Comprehensive Plan, which matches the current planning district designations, as codified in the TDC.

(2) The freight network illustrated in Figure 11-6 is largely consistent with the functional classification plan (Figure 11-1), which strives to connect industrial and manufacturing uses to the regional and state transportation network via a series of major and minor arterial roadways. The movement of raw materials and finished products via designated truck routes provides for efficient movement of goods while maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system. Federally and state designated truck routes, part of the National Highway System (NHS), have been identified on I-5 and OR 99W. Metro identifies “road connectors” in the RTP freight network on SW 124th Avenue, SW Tualatin-Sherwood Road, SW Lower Boones Ferry Road, and SW Boones Ferry Road. The City of Tualatin designates additional truck routes on roadway facilities that connect commercial/industrial districts within the City to major arterials and, ultimately, to OR 99W, I-5, and I-205.

(3) The needs of the freight system are consistent with those identified in the Street System Plan (TDC 11.630). Projects that address needs related to truck routes, either directly or by providing alternate routes that improve traffic operations along truck routes, serve the needs of the freight system. All new roadways should be built to current City design standards to meet the operational needs of trucks on designated truck routes.

Section 11.670.

(1) Portland and Western Railroad (PNWR) owns and operates two freight rail lines within the City. One track (running north-south) accommodates both freight and the WES commuter rail, and an east-west line runs along the south side of SW Herman Road. As of November 2012 the east-west line carries one train daily in each direction, and the north south has two freight trains daily in addition to the WES trains described in the Transit section.

There are 13 gated public railroad crossings in Tualatin and a number of additional driveways or private roads that cross the railroad. The private crossings are stop controlled, but not signalized. Freight trains have the right of way at all intersections. The low number of trains does not present a large safety concern in the City, and recent Quiet Zone work done in conjunction with the north-south WES rail line opening added gates at all public crossings.

(2) PNWR has no current plans to increase freight service through Tualatin. Although the east-west track runs adjacent to manufacturing areas, no rail sidings or other access to businesses are planned.

(3) Freight Rail Policies. Following are policies for freight rail:

(a) Freight Rail Policy 1: Continue to coordinate with PNWR and TriMet to ensure that railroad crossings are safe and have few noise impacts on adjacent neighborhoods

(b) Freight Rail Policy 2: Look for opportunities to shift goods shipments to rail to help reduce the demand for freight on Tualatin's roads.

(c) Freight Rail Policy 3: Look for opportunities to create multi-modal hubs to take advantage of the freight rail lines

(4) Passenger Rail Policies. The City of Tualatin's policies on public transit are described in TDC 11.640 as part of the Transit Modal Plan. Those policies that may relate to the existing heavy rail lines in Tualatin include Transit Policies 3, 4, 5, and 8:

Section 11.680.

This section includes the Water, Pipeline and Air Plans.

(1) Water Plan. The Tualatin River is the only large waterway within the City of Tualatin. The river is used primarily for recreation and is open for canoeing and kayaking. Therefore, the TSP does not include any specific policies, programs or projects for the Tualatin River as part of the transportation network. However, several projects are proposed in other sections of the TSP Technical Memorandum (December 2012) to increase access to the river for recreation purposes.

(2) Pipeline Plan. A natural gas transmission pipeline and a gasoline pipeline cross through the City. There is no anticipated need to increase pipeline capacity or construct new pipelines through the City, and therefore no such improvements are proposed in the TSP.

(3) Air Plan. There are no airports within the City of Tualatin, although several airports are located within 30 miles of the City: the Aurora State Airport, Hillsboro Municipal Airport, and Portland International Airport. These airports meet the commercial, freight, and business aviation needs of Tualatin residents. No plans are proposed to construct airport facilities within the City of Tualatin; existing airports are anticipated to continue serving the citizens of Tualatin adequately.

Section 11.690.

(1) The TPR requires all cities with populations greater than 25,000 people to develop a Transportation Demand Management (TDM) Plan. The RTP also requires that TDM strategies be used to encourage alternative transportation modes and achieve higher vehicle occupancy targets. TDM measures are designed to change travel behavior in order to reduce the need for more road capacity and improve performance

of the road system. Typical TDM projects include encouraging use of travel modes other than the auto, ride sharing, and measures to reduce the need for travel—such as telecommuting policies.

TDM policies and projects can be cost-effective ways to reduce congestion by encouraging the use of other modes, reducing the need for travel or reducing the number of vehicle-miles driven. The City of Tualatin can implement a range of TDM measures to manage travel demand, in conjunction with partner organizations in many cases. Providing bicycle, pedestrian, and transit infrastructure can be effective means to encourage drivers to switch to other modes. Many of the pedestrian, bicycle, and transit improvements proposed in other sections of the TSP can be considered TDM measures as they encourage use of travel modes other than the auto. In addition to these infrastructure projects, a number of strategies are applicable to Tualatin, as discussed in detail in the TSP Technical Memorandum (December 2012).

(2) Transportation Demand Management Policies. The following policies support other modal plans in the TSP and help Tualatin meet its mode-share targets, as required by the RTP and presented in Table 11-1:

(a) TDM Policy 1: Support demand reduction strategies, such as ride sharing, preferential parking, and flextime programs.

(b) TDM Policy 2: Partner with the Tualatin Chamber of Commerce, the Westside Transportation Alliance, major employers, and business groups to implement TDM programs

(c) TDM Policy 3: Explore the use of new TDM strategies to realize more efficient use of the City's transportation system

(d) TDM Policy 4: Support Washington County's regional TDM programs and policies to reduce the number of single-occupancy vehicle (SOV) trips

(e) TDM Policy 5: Promote the use and expansion of the Tualatin Shuttle program.

(3) Metro Modal Targets. Metro in its 2035 RTP established modal targets for how residents in the region will make trips in 2040. These are separated out by regional designations. Tualatin has a number of designations within the City limits, as described in the following sections and shown in Figures 9-4 (Design Type Boundaries) and 11-2 (Metro Regional Street Design System).

(a) Town Center. This designation is consistent with the Town Center Plan study area, centered on the Lake of the Commons and includes land south of the Tualatin River and west of I-5, including the Tualatin Community Park. The western Boundary is SW 95th Avenue south to SW Tualatin-Sherwood Road, and then southern boundary is SW Tualatin-

Sherwood Road to approximately SW Boones Ferry Road then continues east near SW Warm Springs Street.

(b) Corridors. There are a number of corridors in Tualatin: SW Tualatin-Sherwood Road is a regional street, along with 99W, SW 124th Avenue, and SW Tualatin Road. SW Boones Ferry Road is a community street, and SW Tualatin-Sherwood Road/SW Nyberg Street in downtown are community boulevards. Regional arterials include 99W, SW 124th Avenue, SW Boones Ferry Road, SW Tualatin-Sherwood Road, SW Herman Road, SW Nyberg Street, SW Sagert Street, SW Borland Road, and SW 65th Avenue.

(c) Employment Land. Most of western Tualatin is employment land south of SW Tualatin Road and west of the railroad tracks.

(d) Parks and Natural Areas. Hedges Creek is designated a park and natural area, along with many of the other greenway areas including Nyberg Creek Greenway, Saum Creek, and other City parks.

(e) Neighborhoods. Neighborhood areas include southern Tualatin near SW Boones Ferry Road, northern Tualatin north of SW Tualatin Road, and eastern Tualatin excluding the hospital area and the greenways and parks.

(f) These designations have modal targets associated with them, as seen in Table 11-1. The non-drive-alone modal target for Tualatin is 45-55 percent in the Town Center and Station Community, and 40-45 percent for the employment land, parks and natural areas, and neighborhoods.

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TABLE 11-1
Metro Modal Targets

2040 Regional Designation	Non-drive-alone Modal Target	2040 Regional Designation	Non-drive-alone Modal Target
Regional Centers		Regional Centers	
Town Centers		Town Centers	
Main Streets		Main Streets	
Station Communities	45–55%	Station Communities	45–55%
Corridors		Corridors	
Passenger Intermodal Facilities		Passenger Intermodal Facilities	
Industrial Areas		Industrial Areas	
Freight Intermodal Facilities		Freight Intermodal Facilities	
Employment Areas	40–45%	Employment Areas	40–45%
Inner Neighborhoods		Inner Neighborhoods	
Outer Neighborhoods		Outer Neighborhoods	

Source: Metro’s 2035 RTP

Section 11.700.

(1) Transportation System Management (TSM) measures are designed to increase the efficiency, safety, capacity, and level of service of the transportation system without physically increasing roadway capacity. Typical TSM projects include traffic light synchronization, traffic calming, travel information systems, access management, and parking management strategies. Many of the projects listed in the modal plans—including the Transit, Pedestrian and Bicycle, and Access Management plans—qualify as TSM measures.

Many TSM tools can be implemented inexpensively to help make the existing system work more efficiently. A wide range of TSM strategies are applicable to Tualatin. These are discussed in detail in the TSP Technical Memorandum (December 2012).

Section 11.710.

(1) The City owns several public parking lots in downtown Tualatin to support denser development in the City’s core area. A separate taxing district has been created to support ongoing maintenance and operations of these parking lots. The City completed a study in 2011 which identified that the existing parking supply is sufficient to meet the parking demand in downtown Tualatin.

(2) The RTFP requires parking policies and a parking plan in a TSP or other planning document. The current TDC includes parking minimums and is compliant with this requirement.

Section 11.720.

(1) The project table for each modal plan in the Tualatin TSP Technical Memorandum (December 2012) includes recommendations for applicable funding sources. Additionally, the relative importance of TSP projects are identified in the project tables, based on community goals, the magnitude of the deficiency or issue that the project addresses, and the ability to secure funding, conduct engineering, and build a project. Appendix E of the TSP Technical Memorandum (December 2012) provides a detailed description of transportation funding and improvement costs for all of the TSP's recommendations.

(2) A variety of established federal, state, regional, and local funding sources are available to fund future transportation projects in the Tualatin TSP Technical Memorandum (December 2012), depending on the eligibility requirements. Implementation of TSP projects will depend on funding and community priorities.

(3) Prioritization. Prioritization of projects within the TSP Technical Memorandum (December 2012) is separated into three categories: short-term, medium-term, and long-term. Short term projects are expected to be built within 0-5 years, while medium-term are 5-10 years, and long-term projects are expected to be built in the 10-20 year time frame. Prioritization is determined based on a combination of the most important projects to implement first, the ease of implementation, and the potential cost – some projects will take a number of years to identify and secure funding. Some projects will also need regional coordination and support, which may take time to secure an agreement. Prioritization is an estimate: long-term projects may be implemented sooner than 10-20 years due to funding becoming available, a high degree of community support or other factors. The suggested priority for projects in the TSP Technical Memorandum (December 2012) is a general guide and not a required timeframe.

The City will need to periodically update the TSP, and will review the need and timing for longer-term improvements at those times. Prioritizing specific near-term projects will occur annually when the City updates its five-year financial plan and prepares its capital improvement plan (CIP) for the following year. Future road improvements or related transportation projects listed or not listed in the TSP Technical Memorandum (December 2012) are not required to be reviewed and approved through a land use process.

The construction of roads, storm drainage, water, sewer, and electrical facilities in conjunction with local development activity should be coordinated if the City of Tualatin is to continue to develop in an orderly and efficient way. Consequently, the plans proposed in the TSP Technical Memorandum (December 2012) should be

considered in light of developing infrastructure sequencing plans, and may need to be modified accordingly.

Section 31. Figures, Maps and Tables, are amended as follows:

Figures 74-2A through 74-2FG, Street Design Standards are deleted and replaced by **Exhibits A - G.**

Figure 11-1 Functional Classification and Traffic Signal Plan, is deleted and replaced with **Exhibit H.**

Figure 11-2, Metro Regional Street Design System is deleted and replaced by **Exhibit I.**

Figure 11-3, Local Street Plan is deleted and replaced by **Exhibit J.**

Figure 11-4, ~~Tualatin Bicycle and Pedestrian System Plan~~ is deleted and replaced by **Exhibit K.**

Figure 11-5, ~~Tualatin Bicycle Transit Plan System~~ is deleted and replaced by **Exhibit L.**

Figure 11-6, ~~Tualatin Transit Plan~~ Freight Routes is deleted and replaced by **Exhibit M.**

~~Figures 11-8a through 11-8d, Financially Constrained TSP Projects.~~

~~Figures 75-2A through 75-2G, Recommended Street Design Standards~~

~~Map 75-1, Access Management.~~

Table 11-1, Metro Modal Targets~~Tualatin Functional Classification Descriptions.~~

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~~Table 11-2, Street Functional Classification Summary.~~

~~Table 11-3, Transportation Improvement Program Summary.~~

~~Table 11-4, Projects Unfunded or Requiring New Funding Sources.~~

~~Table 75-1, Functional Classification Design Standards Summary~~

INTRODUCED AND ADOPTED this 25th Day of February, 2013.

CITY OF TUALATIN, OREGON

BY _____
Mayor

ATTEST:

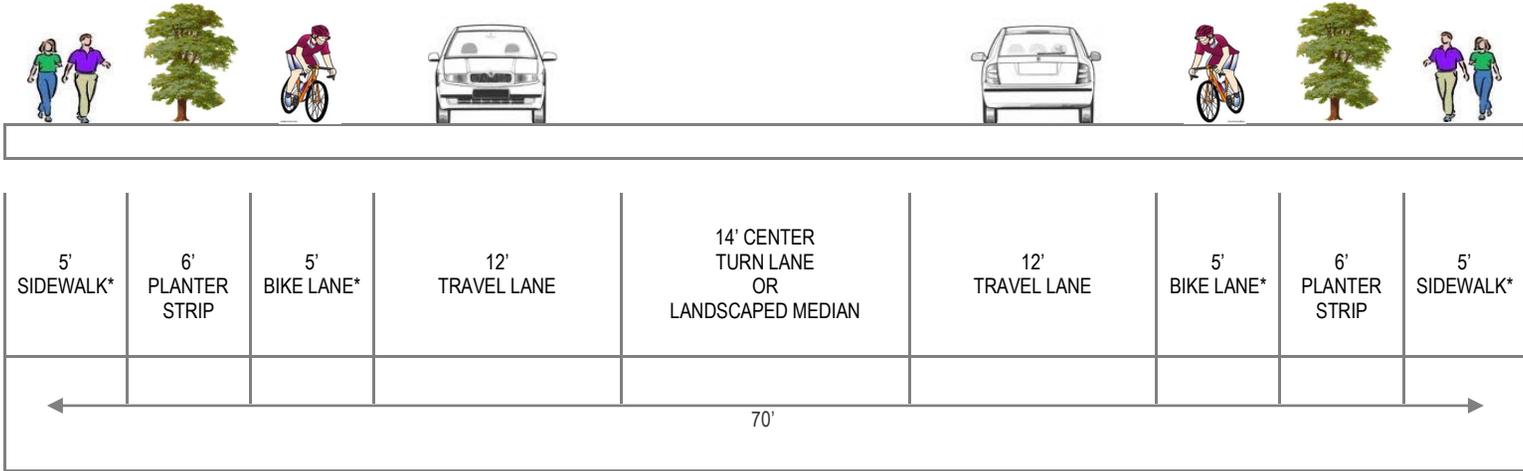
BY _____
City Recorder

APPROVED AS TO LEGAL FORM

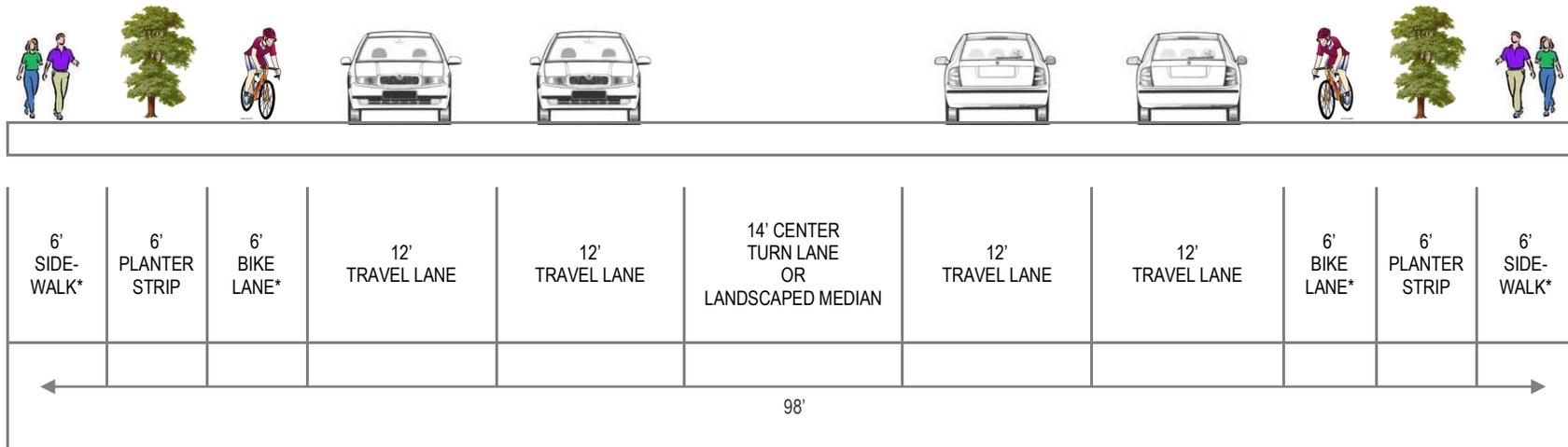
BY _____
City Attorney

MAJOR ARTERIAL

Minimum



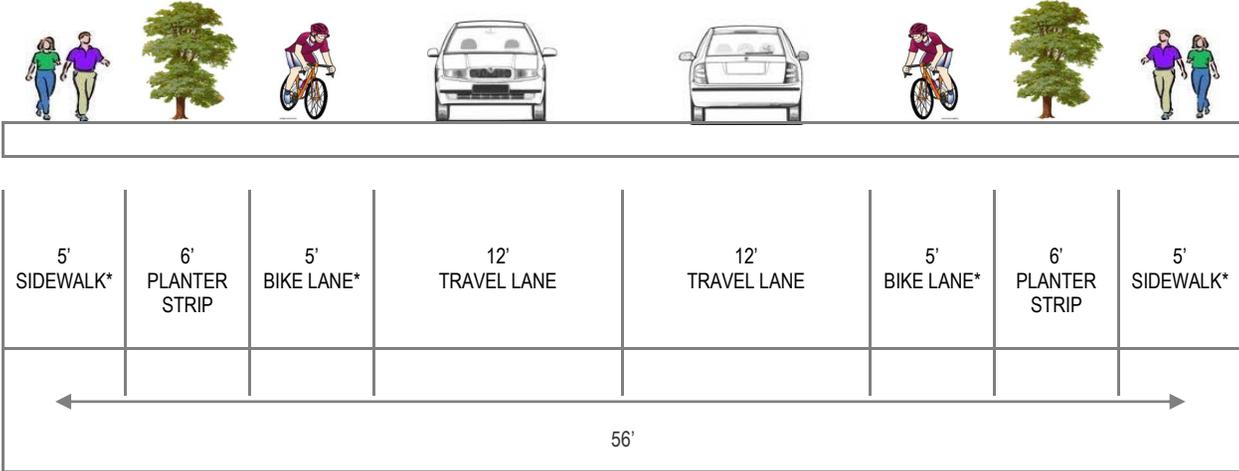
Preferred



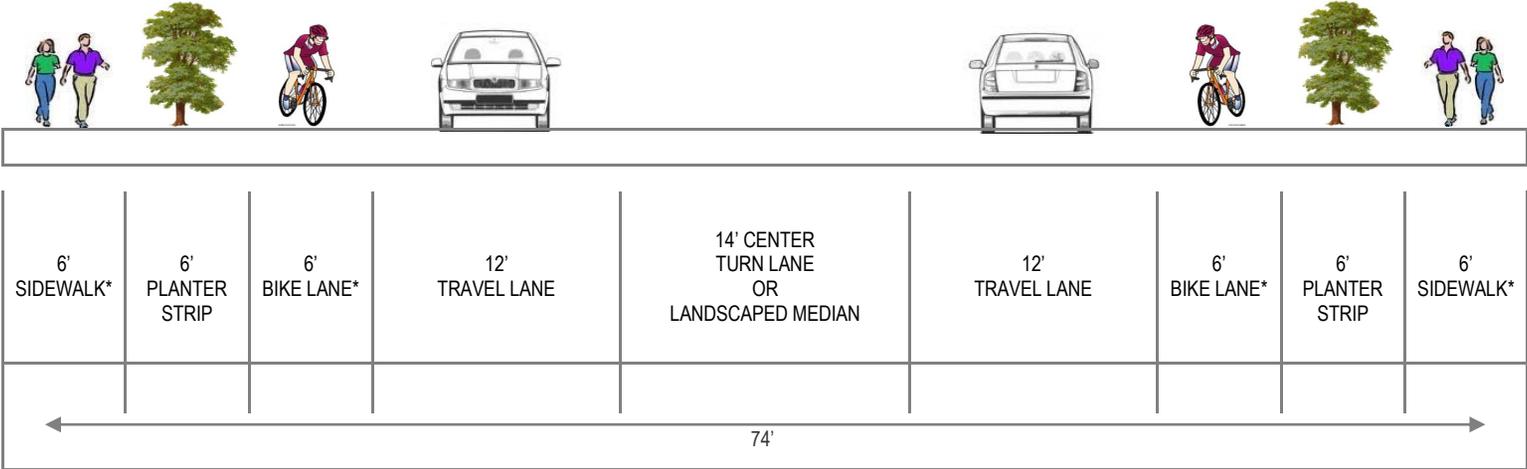
*The City of Tualatin may allow a 12' multi-use path to be substituted for the sidewalk and bicycle lane on either or both sides. If allowed, the planter strip must be installed between the travel lane and the multi-use path.

MINOR ARTERIAL

Minimum



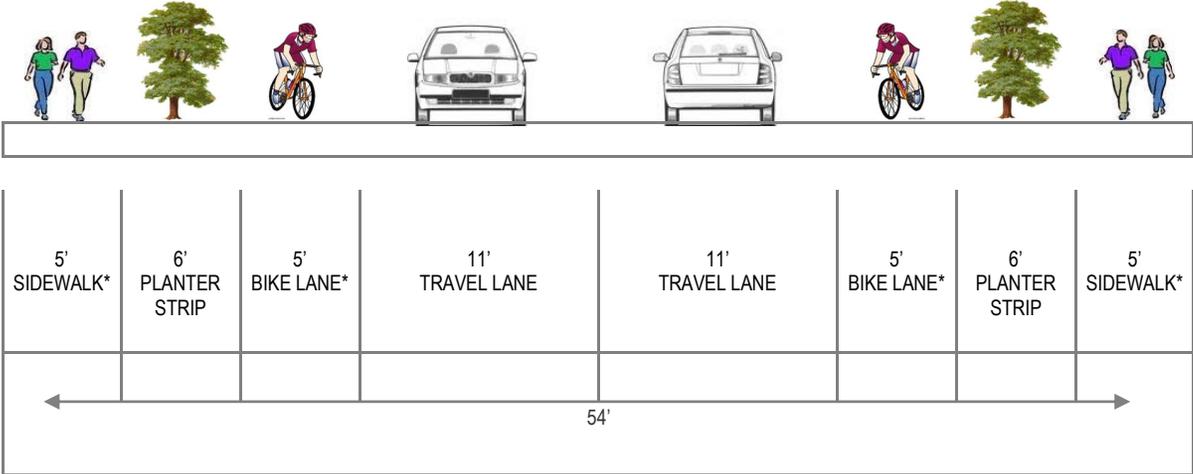
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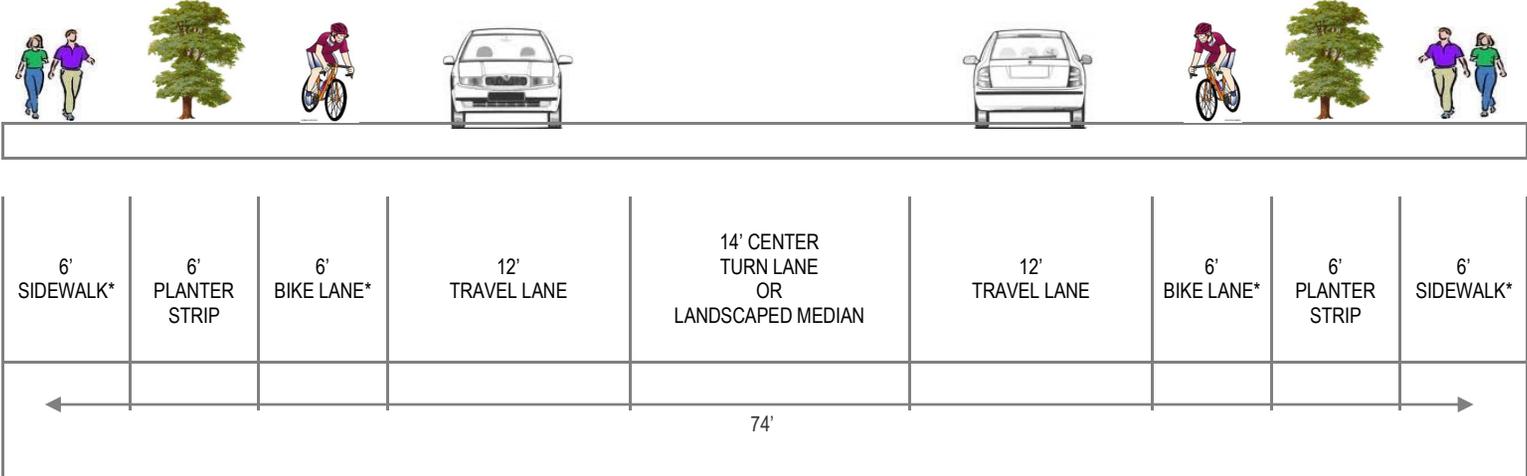
*The City of Tualatin may allow a 12' multi-use path to be substituted for the sidewalk and bicycle lane on either or both sides. If allowed, the planter strip must be installed between the travel lane and the multi-use path.

MAJOR COLLECTOR

Minimum



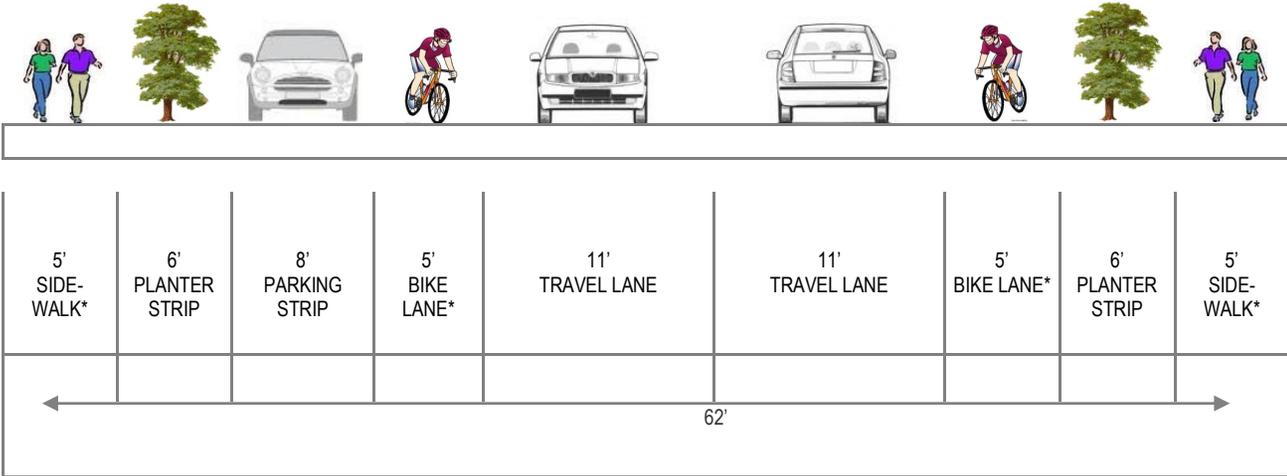
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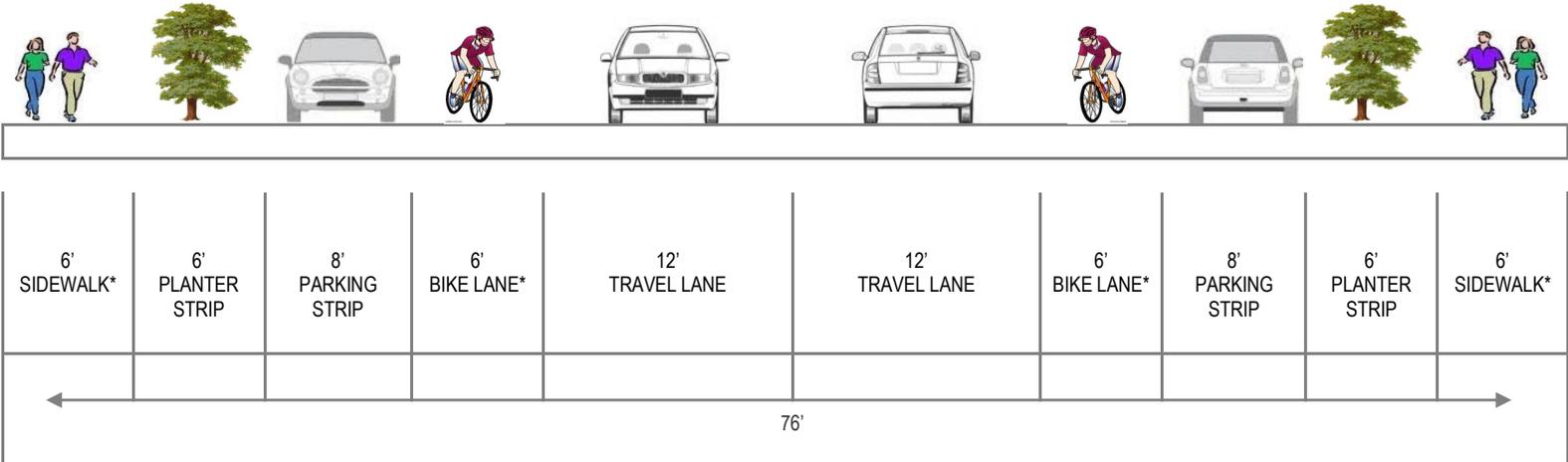
*The City of Tualatin may allow a 12' multi-use path to be substituted for the sidewalk and bicycle lane on either or both sides. If allowed, the planter strip must be installed between the travel lane and the multi-use path.

MINOR COLLECTOR

Minimum



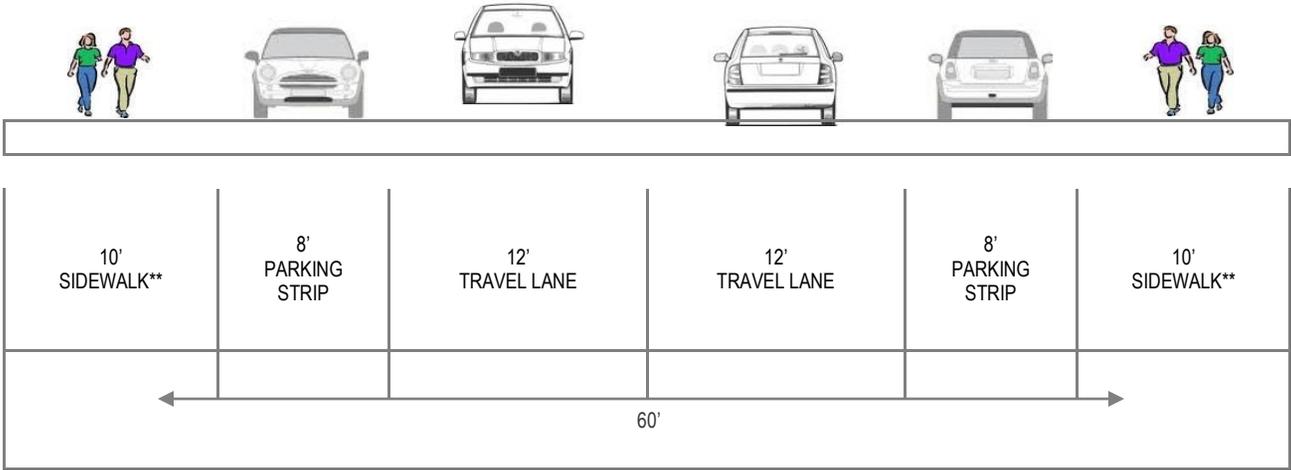
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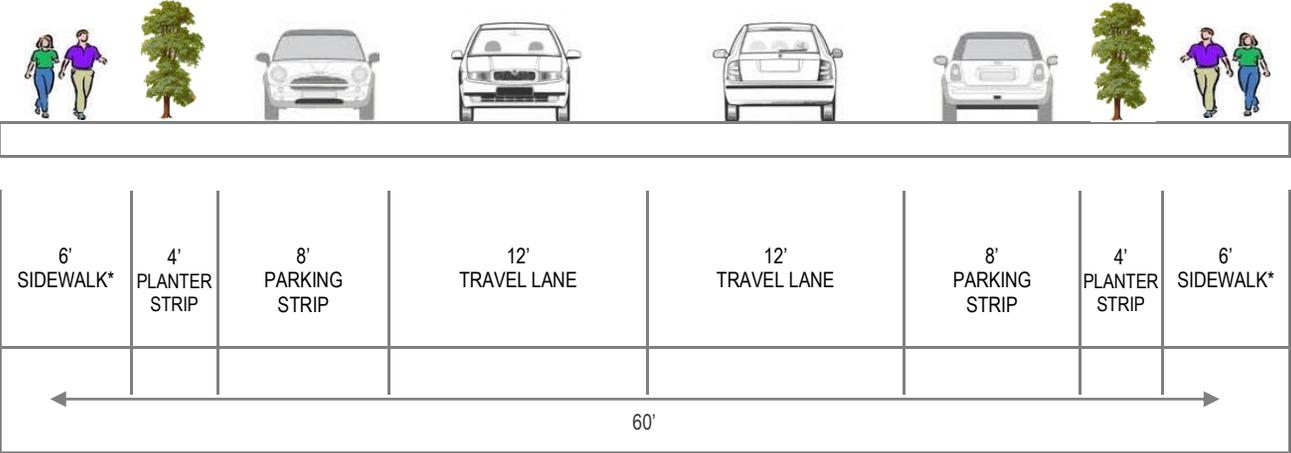
*The City of Tualatin may allow a 12' multi-use path to be substituted for the sidewalk and bicycle lane on either or both sides. If allowed, the planter strip must be installed between the travel lane and the multi-use path.

CONNECTOR

Downtown Core



Commercial/Industrial

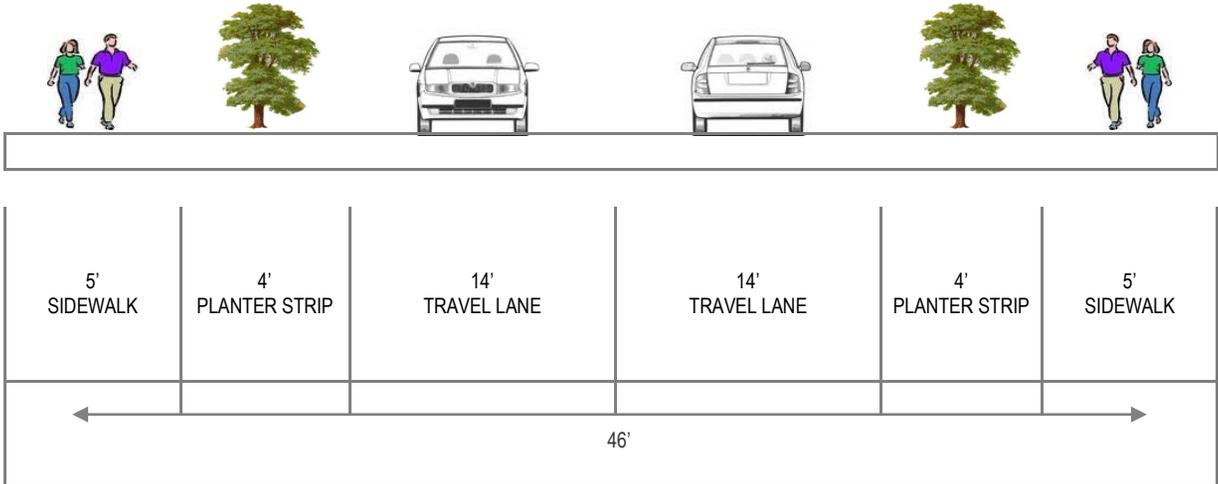


*The City of Tualatin may allow a 12' multi-use path to be substituted for the sidewalk and bicycle lane on either or both sides. If allowed, the planter strip must be installed between the travel lane and the multi-use path.

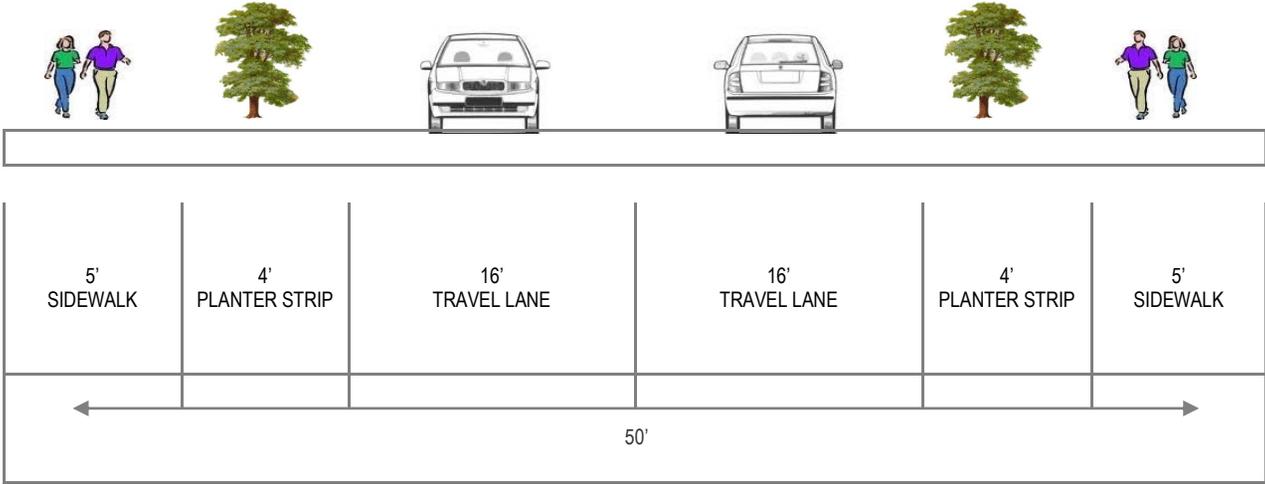
**Sidewalks on the downtown connector roads have 5 x 5' tree grates instead of planter strips.

LOCAL

Minimum

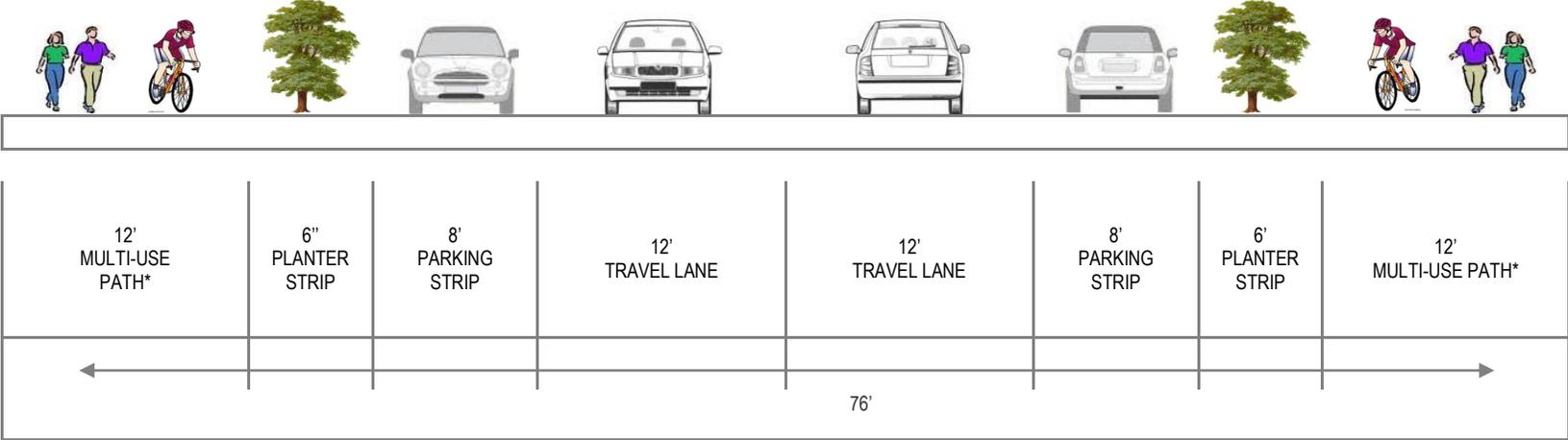


Preferred

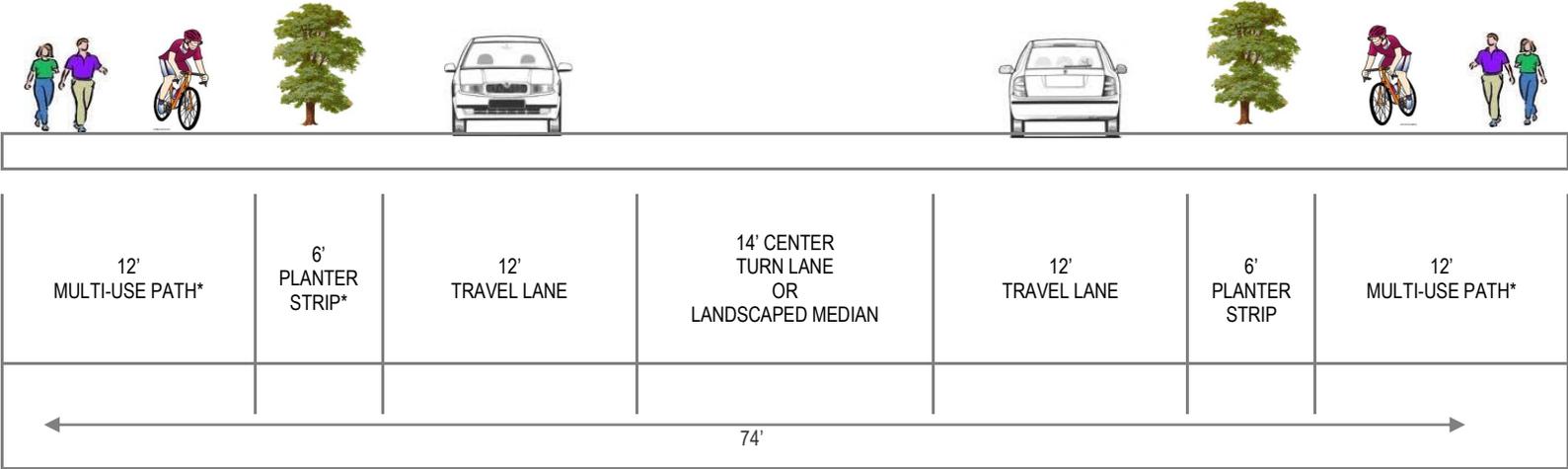


WITH MULTI-USE PATH

Preferred Collector



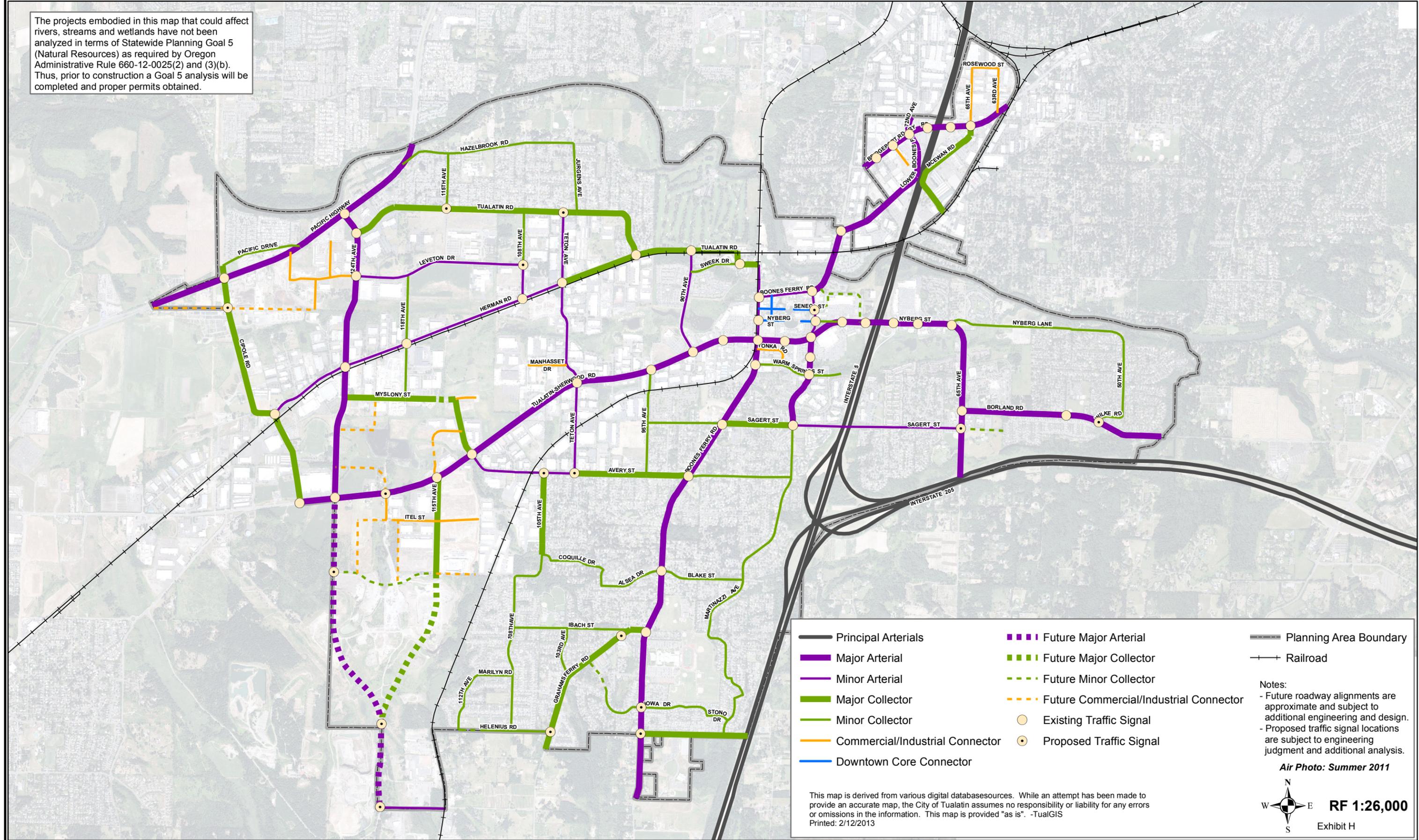
Preferred Arterial



*The City of Tualatin may allow a 12' multi-use path to be substituted for the sidewalk and bicycle lane on either or both sides. If allowed, the planter strip must be installed between the travel lane and the multi-use path.

Figure 11-1: Functional Classification and Traffic Signal Plan

The projects embodied in this map that could affect rivers, streams and wetlands have not been analyzed in terms of Statewide Planning Goal 5 (Natural Resources) as required by Oregon Administrative Rule 660-12-0025(2) and (3)(b). Thus, prior to construction a Goal 5 analysis will be completed and proper permits obtained.



— Principal Arterials	■ Future Major Arterial	--- Planning Area Boundary
■ Major Arterial	■ Future Major Collector	—+— Railroad
■ Minor Arterial	--- Future Minor Collector	
■ Major Collector	--- Future Commercial/Industrial Connector	
■ Minor Collector	● Existing Traffic Signal	
■ Commercial/Industrial Connector	● Proposed Traffic Signal	
■ Downtown Core Connector		

Notes:
 - Future roadway alignments are approximate and subject to additional engineering and design.
 - Proposed traffic signal locations are subject to engineering judgment and additional analysis.

Air Photo: Summer 2011

RF 1:26,000
Exhibit H

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
 Printed: 2/12/2013

Figure 11-2: Metro Regional Street Design System

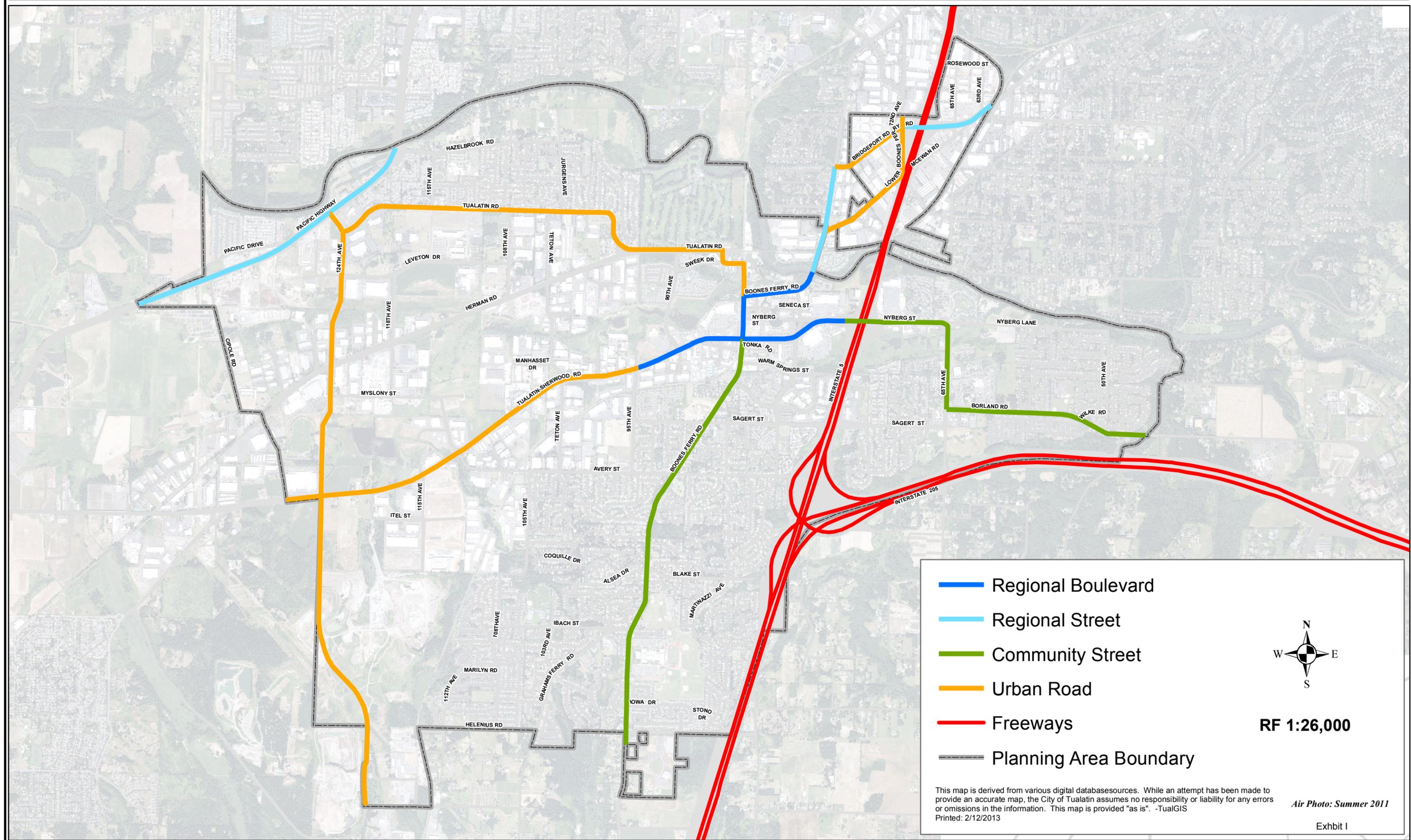


Figure 11-3: Local Street Plan

Minor Collector

Planning Area Boundary

Local Street Connection

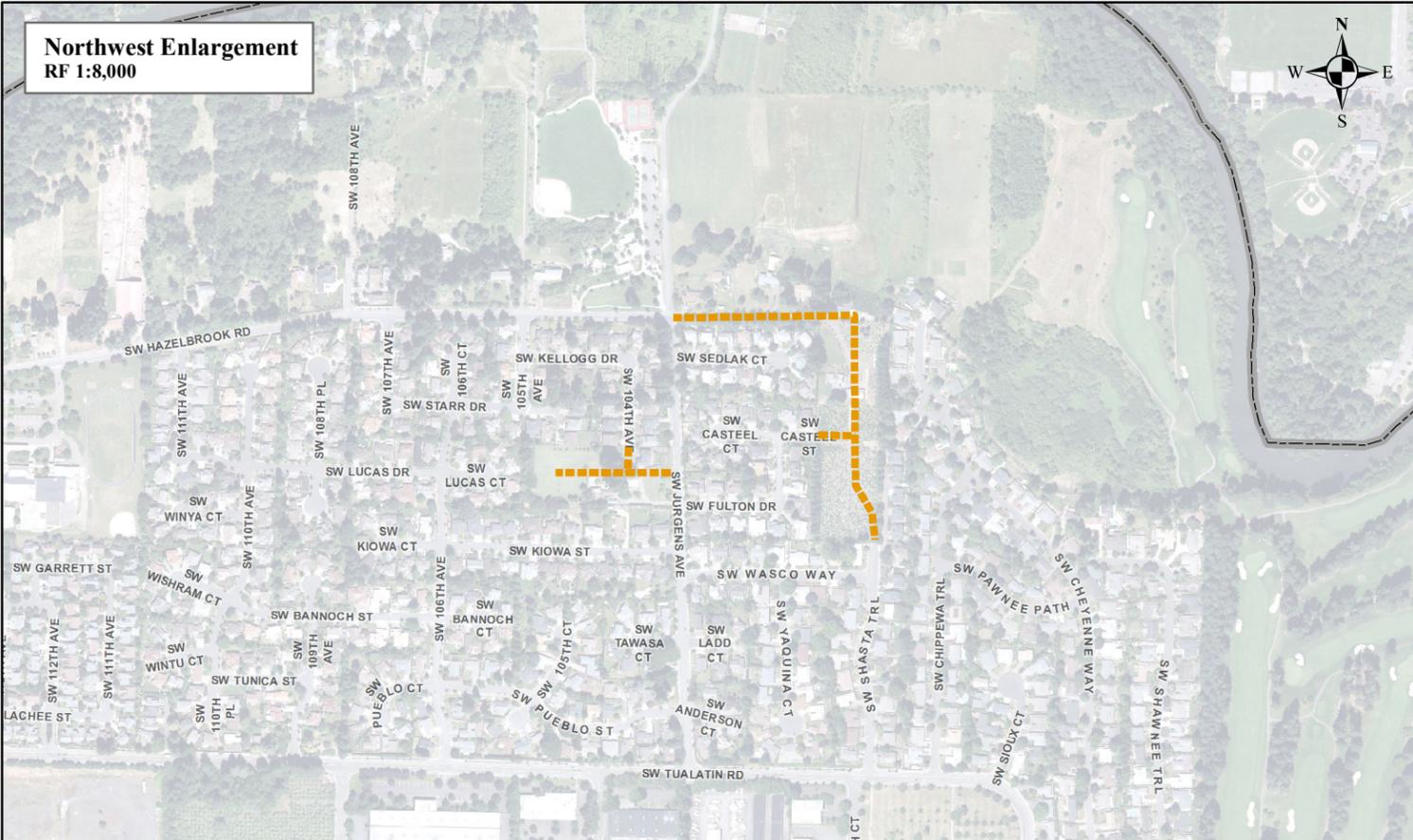
Note:
Future roadway alignments are
approximate and subject to
additional engineering and design.

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
Printed 1/8/2013



Air Photo: Summer 2011

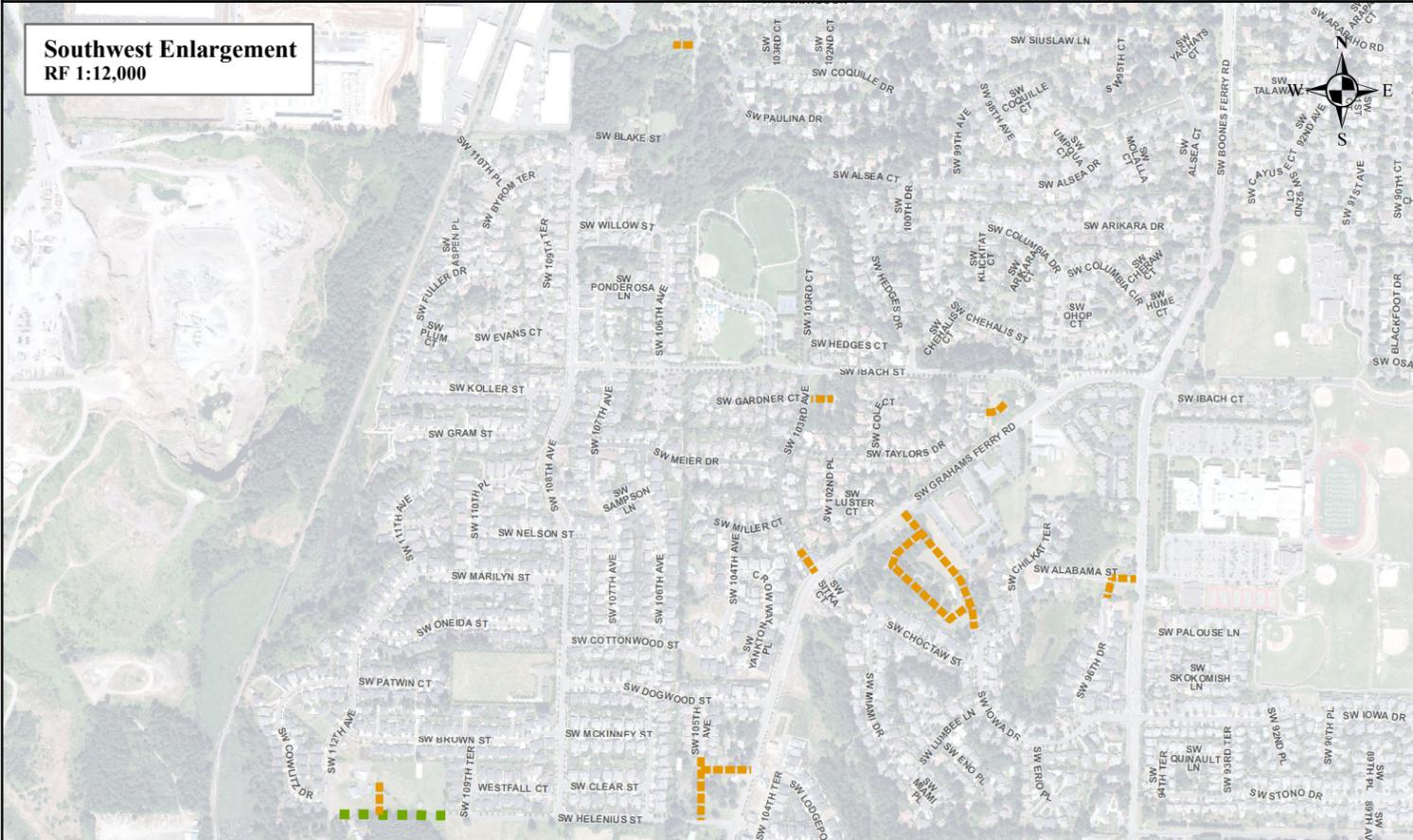
Northwest Enlargement
RF 1:8,000



East Enlargement
RF 1:9,000



Southwest Enlargement
RF 1:12,000



City Overview
RF 1:50,000

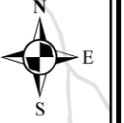
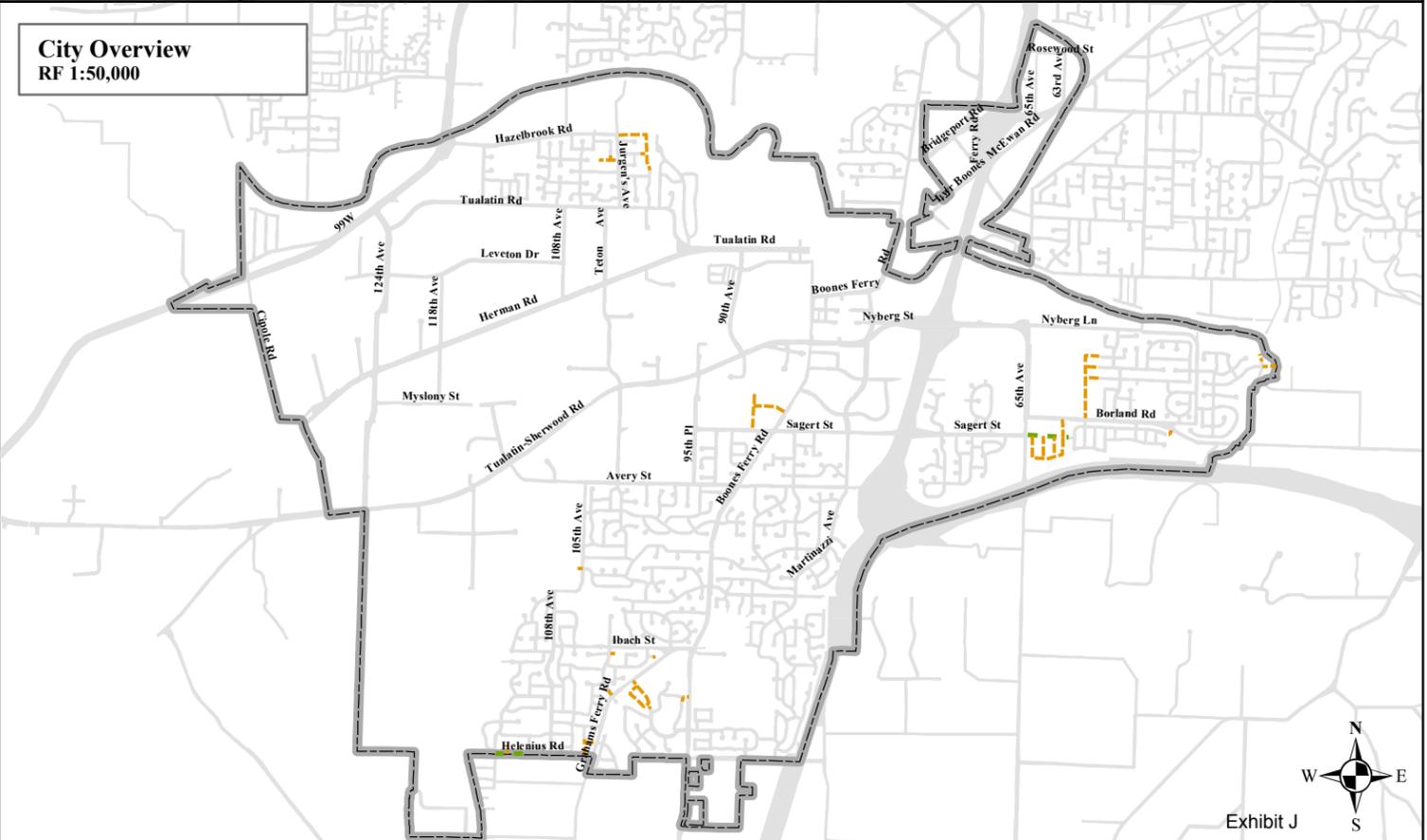
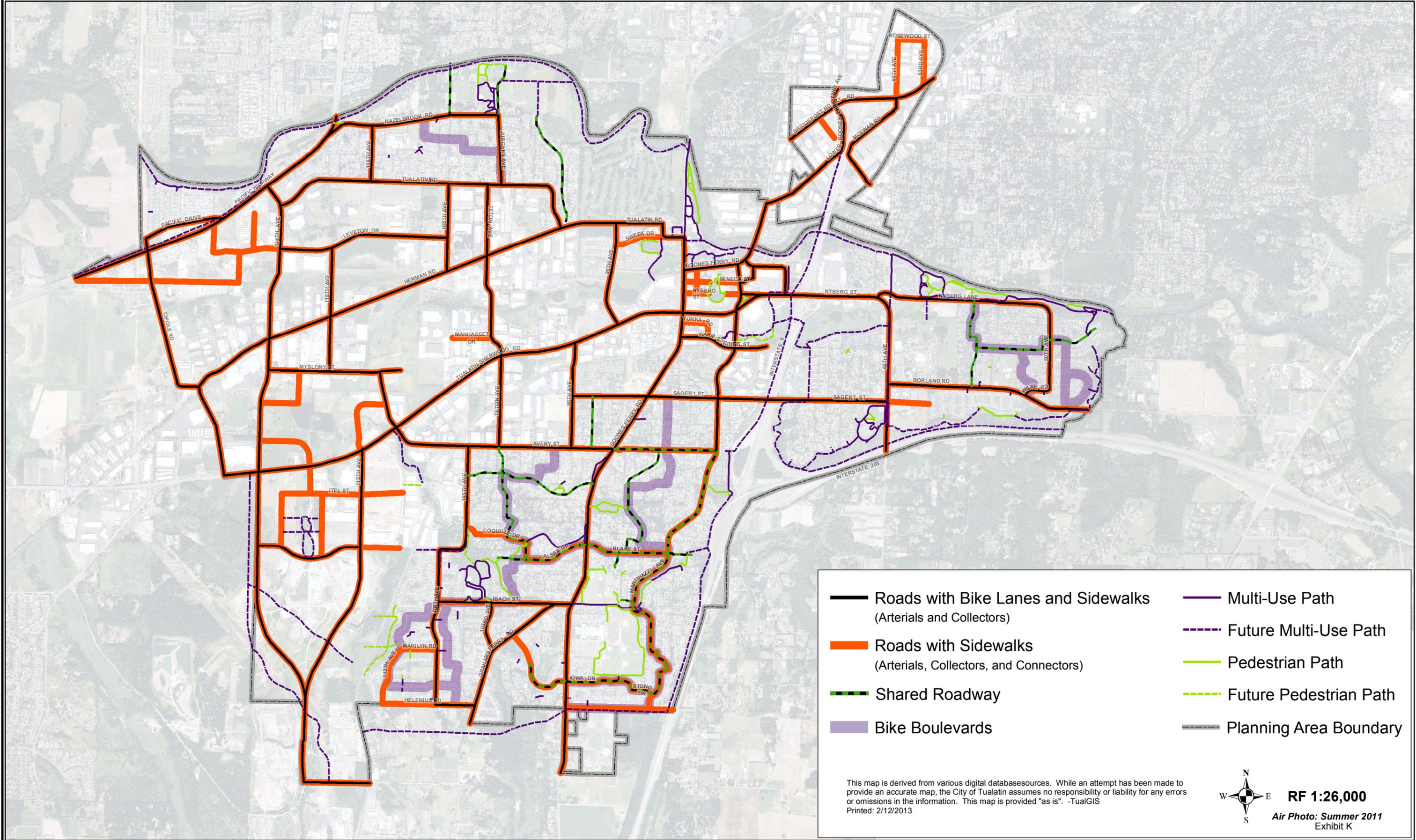


Figure 11-4: Bicycle and Pedestrian Plan



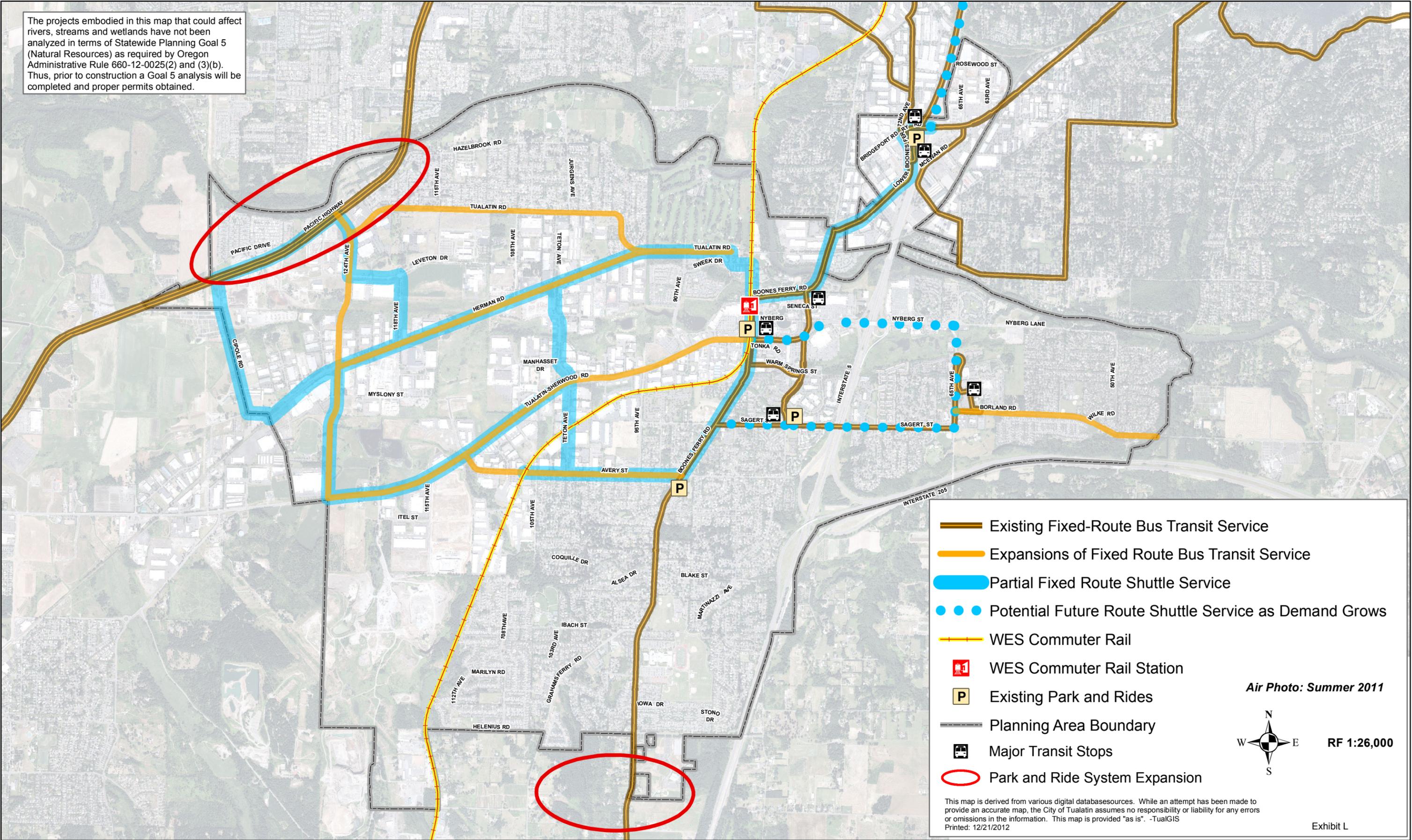
 Roads with Bike Lanes and Sidewalks (Arterials and Collectors)	 Multi-Use Path
 Roads with Sidewalks (Arterials, Collectors, and Connectors)	 Future Multi-Use Path
 Shared Roadway	 Pedestrian Path
 Bike Boulevards	 Future Pedestrian Path
	 Planning Area Boundary

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
Printed: 2/12/2013


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 Air Photo: Summer 2011
 Exhibit K

Figure 11-5: Tualatin Transit Plan

The projects embodied in this map that could affect rivers, streams and wetlands have not been analyzed in terms of Statewide Planning Goal 5 (Natural Resources) as required by Oregon Administrative Rule 660-12-0025(2) and (3)(b). Thus, prior to construction a Goal 5 analysis will be completed and proper permits obtained.



- Existing Fixed-Route Bus Transit Service
- Expansions of Fixed Route Bus Transit Service
- Partial Fixed Route Shuttle Service
- Potential Future Route Shuttle Service as Demand Grows
- WES Commuter Rail
- WES Commuter Rail Station
- Existing Park and Rides
- Planning Area Boundary
- Major Transit Stops
- Park and Ride System Expansion

Air Photo: Summer 2011

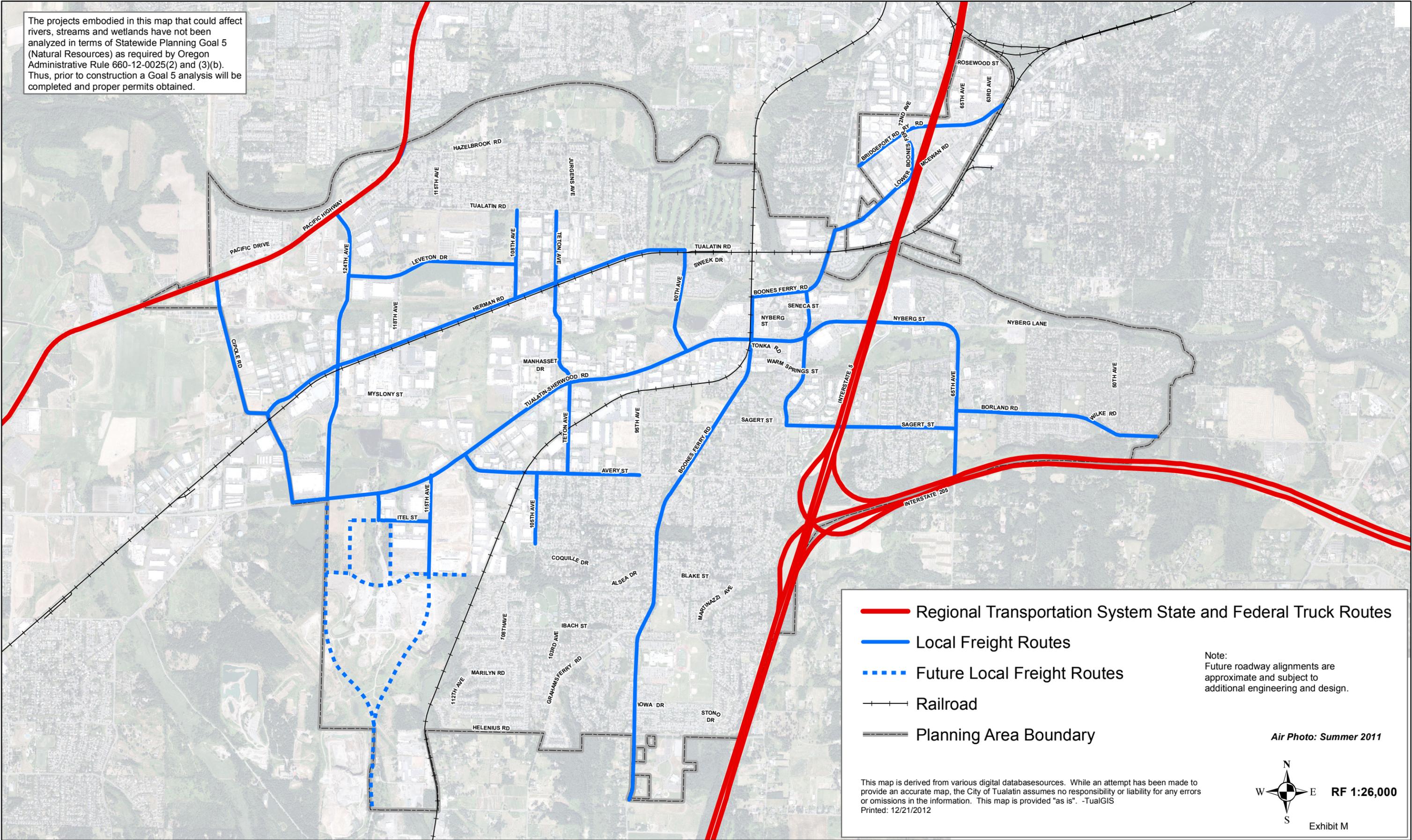


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This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
Printed: 12/21/2012

Figure 11-6: Freight Routes

The projects embodied in this map that could affect rivers, streams and wetlands have not been analyzed in terms of Statewide Planning Goal 5 (Natural Resources) as required by Oregon Administrative Rule 660-12-0025(2) and (3)(b). Thus, prior to construction a Goal 5 analysis will be completed and proper permits obtained.



- Regional Transportation System State and Federal Truck Routes
- Local Freight Routes
- - - Future Local Freight Routes
- + + + Railroad
- - - Planning Area Boundary

Note:
Future roadway alignments are approximate and subject to additional engineering and design.

Air Photo: Summer 2011

This map is derived from various digital databasesources. While an attempt has been made to provide an accurate map, the City of Tualatin assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -TualGIS
Printed: 12/21/2012

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Exhibit M

Attachment A- Revised Transportation System Plan located at:

http://www.tualatinoregon.gov/sites/default/files/fileattachments/citycouncil/calevents/14245/itemh.1.att2_transportation_system_plan.pdf



STAFF REPORT

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Carl Switzer, Parks & Recreation Manager
Paul Hennon, Community Services Director

DATE: 02/25/2013

SUBJECT: Resolution Approving the Ice Age Tonquin Trail Master Plan

ISSUE BEFORE THE COUNCIL:

Council will consider approving the Ice Age Tonquin Trail Master Plan.

RECOMMENDATION:

The Tualatin Park Advisory Committee recommends that Council 1) adopt the attached resolution approving the Ice Age Tonquin Trail Master Plan, 2) adopt the Ice Age Tonquin Trail Master Plan into the Parks and Recreation Master Plan, the Tualatin Development Code, and the Transportation System Plan, and 3) to proceed with land acquisition and construction of the facility as funds become available.

EXECUTIVE SUMMARY:

The purpose of the Ice Age Tonquin Trail Master Plan is to provide general guidance in development of the 22-mile multi-use Ice Age Tonquin Trail which, when built, will connect the Willamette and Tualatin Rivers and dozens of neighborhoods, businesses, schools and parks as it travels through the communities of Tualatin, Wilsonville, and Sherwood and wind through parts of Clackamas and Washington Counties. The Ice Age Tonquin Trail will provide a significant opportunity to interpret the natural and geologic features formed by the Ice Age floods that occurred 15,000 to 20,000 years ago, and also provide safe pedestrian and bicycle connections so that commuters and fitness enthusiasts alike will have new ways to reach work, shopping, schools and natural areas and connect with local bike and pedestrian networks.

The Ice Age Tonquin Trail anchors the southwest quadrant of the metro area's interconnected network of trails and greenways. The trail will connect with other regional trails including the Fanno Creek Greenway Trail, the Westside Trail, and if the French Prairie Bridge is built in Wilsonville, to both Champoege and Willamette Mission State Parks. It will also connect to the Tualatin River Greenway Trail in two locations. Approximately 5 miles of the trail is built in other cities and of the roughly 17 miles of Ice Age Tonquin Trail left to build approximately 5.5 miles is in Tualatin.

The Ice Age Tonquin Trail supports the Council's visions of enhanced and expanded transportation options and expanding opportunities for vibrant parks and recreation facilities.

The Ice Age Tonquin Trail was identified as a regionally significant trail in Metro's 1992 Metropolitan Greenspaces Master Plan. Since that time, voters approved two Metro bond measures; one in 1995 and another in 2006 that identified acquisition priorities in the Tonquin Geologic Area target area, including natural areas and a trail corridor.

In November 2007, Metro entered into an Intergovernmental Agreement with Oregon Department of Transportation and the cities of Wilsonville and Sherwood whereby Metro managed a contract with CH2MHill consultants to conduct the master planning process and prepare the trail master plan. In 2011 the City of Tualatin entered into the cooperative agreement.

The Ice Age Tonquin Trail Master Plan was funded through ODOT, Metro, and the cities of Tualatin, Wilsonville and Sherwood. A steering committee comprised of citizens and representatives from the partner cities and counties worked with Metro and the consultant team to finalize the route and trail design and to identify who will build and operate the trail. The Ice Age Tonquin Trail master plan has been successfully completed and meets the intent of the IGA between the cities of Tualatin, Wilsonville, and Sherwood, Metro and the Oregon Department of Transportation.

Building on a 2004 Tonquin Trail Feasibility Study, the Ice Age Tonquin Trail master planning process confirmed a general alignment for the trail and identified trail design elements, cost estimates to build and maintain the trail, possible funding sources, and a phased implementation plan to guide future land acquisition and development.

During the master planning process more than 1,000 residents, property owners, and other stakeholders weighed in at open houses, community festivals, public presentations, stakeholder interviews, and online. The extensive public involvement, including presentations to elected officials to keep them updated, resulted in a master plan that is widely supported by the partner jurisdictions and residents of the region. Based on letters of support from the trail partner jurisdictions, the trail name was amended to add the words Ice Age. Appendix A of the Ice Age Tonquin Trail Master Plan contains a complete summary of the community outreach conducted for the trail project.

Metro staff and project partners met with landowners where trail easements are needed to explain Metro's willing seller program for trail acquisition and to gauge landowner interest in the project. There is broad support for the trail, though the route will need to be refined in the future in some areas of unincorporated Washington County within Tualatin's planning area.

The goal of the Ice Age Tonquin Trail in the Southwest Concept Plan area is to have a north/south orientation through and adjacent to the areas of highest desirability for interpretation of the Ice Age Floods and the associated natural and geologic features. In this area, the exact alignment and a proposed trailhead location have yet to be determined and will be developed in the future in consultation with the industrial land owners in this area, adjacent property owners, the general public and other stakeholders no later than the time of annexation. The preferred alignment shown in the plan is consistent with the adopted SW Concept Plan maps, and is otherwise shown on public right-of-way or on land owned by willing sellers.

The SW Concept Plan area is in unincorporated Washington County and will someday be annexed into Tualatin's city limits. Currently the area is primarily defined by resource extraction operations and industrial businesses. The planning and development of the Ice Age Tonquin Trail in this area will require extensive involvement of industrial property owners during the development of the annexation agreement with them. Any property acquired by Metro for the trail will be acquired via a willing seller program.

The Ice Age Tonquin Trail Master Plan establishes a roadmap for taking the trail from vision to reality. The Master Plan provides the information needed for Tualatin and its regional partners to embark on trail acquisition and development by providing general alignment, design, and implementation guidance. When implemented, the Master Plan recommendations will result in:

- A safe, ADA accessible and seamless connection from neighborhoods and employment areas to the trail
- An alignment that is primarily off-street, with some on-street sections in low traffic areas
- A consistent look and feel for the trail throughout its entire length
- A unifying interpretive theme of the Glacial Lake Missoula Ice Age floods that created the landscape the trail travels through
- Guidance on trail development, operations and maintenance
- The trail alignment will be adopted into partner's transportation system plans to make the project eligible for a variety of funding sources.

OUTCOMES OF DECISION:

Following approval of the Ice Age Tonquin Trail Master Plan by Tualatin and Metro, staff will develop the appropriate materials for Council to consider adopting the Ice Age Tonquin Trail Master Plan into the Park and Recreation Master Plan, the Tualatin Development Code, and the Transportation System Plan.

Adoption of the master plan into the Tualatin Transportation System Plan (and Metro's incorporation of it in the 2035 Regional Transportation Plan) will allow the trail to be eligible for local, regional, state, and federal funding sources.

ALTERNATIVES TO RECOMMENDATION:

- Approve the proposed Ice Age Tonquin Trail Master Plan
- Do not Approve the proposed Ice Age Tonquin Trail Master Plan
- Continue the discussion of Approve the proposed Ice Age Tonquin Trail Master Plan and consider approval at a later date

FINANCIAL IMPLICATIONS:

Approval of the Ice Age Tonquin Trail Master Plan does not trigger any immediated costs by the City of Tualatin.

The total cost to acquire, design and build the Tualatin segments of the trail is estimated to be \$26,545,000 and would be implemented in phases as funding becomes available. Some Ice Age Tonquin Trail land in Tualatin may be acquired with funds from Metro's 2006 Natural Area Bond Measure.

Attachments: A - Resolution with Ice Age Tonquin Trail Master Plan as Exhibit A

Attachment A- Tonquin Trail Plan located at:

<http://www.tualatinoregon.gov/sites/default/files/fileattachments/citycouncil/calevents/14245/itemh.2.att1.a-resolution-with-ice-age-tonquin-trail-master-plan-as-exhibit-a.pdf>