



City of Oregon City

625 Center Street
Oregon City, OR 97045
503-657-0891

Meeting Agenda Planning Commission

Monday, November 25, 2013

7:00 PM

Commission Chambers

1. Call to Order

2. Approval of the Minutes

[13-648](#)

Approval of Planning Commission Minutes for April 22, May 13, June 24 and July 22, 2013.

Sponsors: Community Development Director Tony Konkol

Attachments: [Staff Report for Minutes](#)

[PCWKSMinutes07_22_2013_Draft](#)

[PCMeetingMinutes06_24_2013_Draft](#)

[PCMeetingMinutes05_13_2013_Draft](#)

[PCMeetingMinutes04_22_2013_Draft](#)

3. Public Comment on Non-Agenda Items

4. Public Hearing

[PC 13-080](#)

L 13-03: Adoption of South End Concept Plan - Comprehensive Plan Amendments

L 13-04: Associated Code Amendments for Adoption of the South End Concept Plan

Sponsors: Planner Pete Walter and Community Development Director Tony Konkol

Attachments: [Staff Report Cover](#)

[Memorandum to Planning Commission](#)

[City Engineer Comments](#)

[South End Concept Plan Final Draft Document](#)

[Concept Plan Map Draft](#)

[SECP - Draft Comprehensive Plan - 11x17P](#)

[SECP Code Worksession Draft](#)

[SECP Implementation Schedule 10.24.13](#)

[All SECP Appendices](#)

[Public Comment - Levy](#)

[Public Comment - Toth](#)

[Public Comment - Greater Oregon City Watershed Council](#)

5. Communications**6. Adjournment**

Public Comments: The following guidelines are given for citizens presenting information or raising issues relevant to the City but not listed on the agenda.

- *Complete a Comment Card prior to the meeting and submit it to the staff member.*
- *When the Chair calls your name, proceed to the speaker table and state your name and city of residence into the microphone.*
- *Each speaker is given 3 minutes to speak. To assist in tracking your speaking time, refer to the timer at the dais.*
- *As a general practice, Oregon City Officers do not engage in discussion with those making comments.*

Agenda Posted at City Hall, Pioneer Community Center, Library, and City Web site(oregon-city.legistar.com).

Video Streaming & Broadcasts: The meeting is streamed live on Oregon City's Web site at www.orcity.org and is available on demand following the meeting.

ADA: City Hall is wheelchair accessible with entry ramps and handicapped parking located on the east side of the building. Hearing devices may be requested from the City staff member prior to the meeting. Disabled individuals requiring other assistance must make their request known 48 hours preceding the meeting by contacting the City Recorder's Office at 503-657-0891.



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Staff Report

File Number: 13-648

Agenda Date: 11/25/2013

Status: Agenda Ready

To: Planning Commission

Agenda #: 2a

From: Community Development Director Tony Konkol

File Type: Minutes

Approval of Planning Commission Minutes for April 22, May 13, June 24 and July 22, 2013.

RECOMMENDED ACTION (Motion):

Consideration and approval with revisions, if neccessary.

BACKGROUND:

Please see attached draft minutes.

BUDGET IMPACT:

Amount:

FY(s):

Funding Source:



City of Oregon City

625 Center Street
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Meeting Minutes Planning Commission

Monday, July 22, 2013

7:00 PM

Commission Chambers

Work Session

1. Call to Order

Chair Kidwell called the work session to order at 7:00 p.m.

Present: 6 - Paul Espe, Zachary Henkin, Denyse McGriff, Robert Mahoney, Charles Kidwell and Tom Geil

Absent: 1 - Damon Mabee

Staffers: 2 - Tony Konkol and Laura Terway

2. Discussion Items:

2a. PC 13-064 Willamette Falls Legacy Project Vision and Master Plan

Tony Konkol, Community Development Director, updated the Commissioners on the new Website up and running for the Willamette Falls Legacy Project at www.rediscoverthefalls.com. The site includes the core values, how to get involved, photos, history of the site, contact information, and is interactive inviting public comment. He explained the outreach booths and public engagement events designed to obtain public feedback on what they would like to see on the site. He showed a video designed to promote the Willamette Falls development site produced by Portland General Electric that will be distributed more widely in the future.

Mr. Konkol gave a history of the due diligence done to bring the project to this point. The project site is 23 acres; 17 acres are north of the PGE seawall, and 6 acres south of the seawall down to where it intersects with Union Pacific. The Partners have been working with the 4 core values: 1) Public access; 2) Economic Development; 3) Healthy Habitats; 4) Cultural and Historic Interpretation, to reinvent the site.

Commissioner Mahoney asked who owns the falls, and Mr. Konkol replied that PGE owns the falls and the Coast Guard has jurisdiction.

Mr. Konkol gave a presentation to the Planning Commissioners showing photos and drawings of the site. He explained the 23-acre site was the focus of the project, but there were other stakeholders to engage in the discussions, such as the West Linn side, the Locks, and the Willamette Falls Heritage area and others. He explained that the City Commission approved an agreement with Blue Heron's bankruptcy trustee for the master planning process, and the City agreed to have a framework plan from the Planning Commission by April 24, 2014. The process includes very aggressive community engagement and communication. The current visioning process is the initial stage to look at big picture goals, addressing larger infrastructure. He reported that the State Legislature approved reserving \$5 million dollars in its budget for the

Willamette Falls Legacy Project. A financial plan needs to be complete by March 2015 in order to get the bonds sold and the funds available. The money is for investing in the site and getting development ready, such as demolition and clean-up. An offer of \$4.1 million dollars has been received from Eclipse Development to buy the property and the bankruptcy trustee accepted the offer and brought it to the Court for consideration. August 21, 2013 is the "overbid date" for another party to overbid the offer. If there is an overbid, it will go to auction one week later on August 28, 2013.

Mr. Konkol invited the Planning Commission members to think 20 years out and envision what they would like to see at the Willamette Falls site. The Commissioners provided the following suggestions:

- *A world class museum celebrating the heritage of the property and the area*
- *Mixed use*
- *Public access to the area*
- *World class hotel overlooking the falls with a good restaurant and convention facilities*
- *Public plaza for events, picnicking and gathering places*
- *Area for flags paying tribute to fallen heroes and other veterans*
- *Area for water sports activities*
- *Commercial use*
- *Community oriented restaurants and shops, but not a major shopping area*
- *An area with its own personality, but inviting community connection to its visitors*
- *Balconies over the falls from facilities*
- *A place where Oregon City residents would want to keep returning to*
- *Pedestrian connectivity to Main Street and the Promenade*
- *Rail access*
- *Consider the 24-hour city concept*
- *Turn-around at the end of Main Street*
- *Evening lighting and/or lighting projection on the falls*
- *Pedestal directional monuments*
- *Apartments/condominiums in mid-range*
- *Light industrial craftsman shops*
- *Art gallery*
- *A current Blue Heron building renovated for a smaller hotel*
- *No national franchise retail chains*
- *Design standards that fit in with the current tone of the City*
- *A design review board should be in place*
- *Potential portage for boats to come from Portland*
- *Connection to the River - Willamette Greenway*
- *Seek a way to put Hwy. 99 below grade to develop connectivity*
- *Parking structure against the cliff to mitigate noise*
- *Habitat restoration*
- *Flood mitigation*
- *Pedestrian friendly*
- *Use of river water to power development*

Commissioner Kidwell commented that many of the current Blue Heron buildings do not meet present-day building codes for fire/life safety, energy, seismic, and accessibility, and unless there is built-in financial incentive or an easy way to convert the building to another use without significant renovation, the cost to renovate an old building is often more costly than demolishing it and building anew. He added that the developer has to see the vision, and the master planning and design process can help the developer see the vision. He suggested narrowing the site down to determine which buildings would qualify for renovation to maximize the use and

incorporate the historical into the design element.

Commissioner Mahoney noted that fire safety would need to be considered and commented that a sub station may be needed.

Mr. Konkol said the Planning Commission would have more opportunity to provide further input. He explained the future events scheduled to obtain additional public input.

2b. PC 13-065

Oregon City Sign Code Update

Laura Terway, Planner, updated the Planning Commission on the proposed sign code development and current status. Staff is working with the public over the next year to determine their desires and needs for signs primarily on private property, rather than public street signs. She indicated a Website for the sign code revision is up and running at www.ocsigncode.org and is interactive and ready to receive comments. A sign code citizen committee is being developed consisting of representatives of schools, churches, neighborhoods, sign code manufacturers, the Planning Commission, HRB, the Chamber of Commerce, and others. Applications are being accepted until August 16, 2013, and members will be appointed by the end of August 2013 to participate in 4 meetings in the next few months. The Committee will make recommendations to staff, who will then put together the proposed code changes and bring it through the legislative process early next year.

Chair Kidwell volunteered to be the Planning Commission member of the citizen committee. Mr. Konkol will send an e-mail to the Commissioners to respond with their interest in participating on the citizen committee.

Commissioner McGriff questioned the need for a sign code manufacturer to be a member of the citizen committee due to the potential conflict of interest.

3. Communications

4. Adjournment

The meeting was adjourned at 9:22 p.m.



City of Oregon City

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Meeting Minutes Planning Commission

Monday, June 24, 2013

7:00 PM

Commission Chambers

1. Call to Order

Chair Kidwell called the meeting to order at 7:00 P.M.

Present: 6 - Paul Espe, Zachary Henkin, Damon Mabee, Robert Mahoney, Charles Kidwell and Tom Geil

Absent: 1 - Denyse McGriff

Staffers: 4 - Pete Walter, Carrie Richter, Tony Konkol and Kelly Moosbrugger

2. Public Comments

There were no public comments.

3. General Business

3a. 13-436 Update to the Oregon City Street Tree List

Pete Walter, Associate Planner, gave a presentation and update on the Oregon City Street Tree list. He explained how staff and the Natural Resources Committee have been working on updating the list. He discussed policy and sidewalk issues, replacement and permitting, public works standards, and referenced sources included in the process.

There was discussion about the street tree list, responsibility of homeowners to the sidewalk and replacement of trees located in the strip abutting the property owner, permit process, and varying species of trees.

Commissioner Espe asked if staff could specify male and female trees on the list.

Commissioner Mahoney asked if staff had considered the impact of pesticides used on trees.

Mr. Walter said the Natural Resources Committee has looked at the County's Pest Management Plan as a possible separate document the City could potentially use as a reference for safe use of herbicides.

A motion was made by Commissioner Espe, seconded by Commissioner Geil, to approve the Oregon City Street Tree List. The motion carried by the following vote:

Aye: 6 - Paul Espe, Zachary Henkin, Damon Mabee, Robert Mahoney, Charles Kidwell and Tom Geil

4. Public Hearing

4a. PC 13-058

A request for a Zone Change and 10-lot Subdivision approval for a property located at 14270 Canyon Ridge Drive.

Chair Kidwell explained this was a quasi judicial hearing and reviewed the process for the public hearing. He asked the Commission if there were any ex parte contacts to declare.

Commissioner Mabee and Commissioner Henkin said they had driven by the site.

Chair Kidwell said he lives near the site, but has not visited the site.

Commissioner Espe said he has been to the site.

Chair Kidwell asked the audience if there was any questions regarding disclosures. There was none.

Kelly Moosbrugger, Assistant Planner, gave a presentation and background about the property, discussed adjacent properties, approval criteria, zone change criteria, street improvements, and proposed lighting. Ms. Moosbrugger discussed the traffic analysis that was done by Group McKenzie and recommended approval with amendments to conditions number 7 and 10 to include the following:

- 1. Applicant is required to submit final engineering plans to Clackamas County for their approval.*
- 2. Applicant shall construct a 5-foot planter strip and 5-foot sidewalk behind the curb on the south side of Canyon Ridge Drive along the frontage of the development.*
- 3. Applicant shall include street lights on Canyon Ridge Drive.*

There was discussion about zoning, city limit line, Urban Growth Boundary, street/sidewalk improvements and street trees.

Tony Konkol, Community Development Director, discussed the comprehensive plan, the zoning map, and explained how staff determined R-6 and R-10 are compatible.

Chair Kidwell called the applicant to speak.

Ed Christensen, Welkin Engineering, representing the applicant, explained the site, zoning options, the proposed development, and storm water system, and he said the improvements on Canyon Ridge Drive are adequate for the County.

Commissioner Mahoney asked what consideration to residential compatibility was given to the property north of the site.

Mr. Christensen said while it is not compatible with the lots directly across from the site, it is compatible with the lots surrounding the proposed homes.

Chair Kidwell asked if there were any studies done for R-8 development.

Mr. Christensen explained R-8 is similar to R-10, but that the shape of the property made it difficult, so they felt R-6 was the most compatible.

Chair Kidwell opened the public hearing.

Leroy Dummer, resident of Oregon City and property owner adjacent to the subject site, explained a few years earlier there had been a request for R-6 on Canyon Ridge, and the Commission at the time decided to keep it at R-10. He asked the Commission to keep these lots R-10.

Mr. Christensen explained this is a low density area and is compatible at R-6. He discussed the traffic study that was done on Canyon Ridge Drive and said they would be installing sidewalks.

Chair Kidwell closed the public hearing.

Chair Kidwell read an email from Commissioner McGriff who was absent from the meeting, stating she did not think the requested zone change is compatible with other lots in the neighborhood and, therefore, does not support R-6. She would like to see these lots kept at R-10 and would prefer fewer trees removed.

There was discussion regarding roadways along Canyon Ridge Drive, zoning, the Comprehensive Plan, public services, connectivity, and street alignment.

Mr. Konkol explained they did have the ability to require pedestrian access, but due to the short length and the rural reserve to the south of the property, they did not require it.

A motion was made by Commissioner Espe, seconded by Commissioner Henkin, to approve TP 13-02 and ZC 13-01, zone change and 10-lot subdivision for a property located at 14270 Canyon Ridge Drive, as amended.

Aye: 5 - Paul Espe, Zachary Henkin, Damon Mabee, Robert Mahoney and Tom Geil

Nay: 1 - Charles Kidwell

5. Communications

Tony Konkol, Community Development Director, explained they are still working on the South End Concept Plan and Sign Code update. He updated the Commission on the Transportation System Plan and discussed the Walker Macy contract for the Willamette Falls Legacy Project, possible funding options, time frame and outreach.

6. Adjournment

Chair Kidwell adjourned the meeting at 8:54 P.M.



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Meeting Minutes Planning Commission

Monday, May 13, 2013

7:00 PM

Commission Chambers

1. Call To Order

Chair Kidwell called the meeting to order at 7 p.m.

Present: 6 - Zachary Henkin, Charles Kidwell, Denyse McGriff, Robert Mahoney, Tom Geil and Damon Mabee

Absent: 1 - Paul Espe

Staffers: 3 - Pete Walter, Tony Konkol and John Lewis

2. Public Comments

Joseph Johnson, Oregon City resident, asked for more clarification about the Transportation System Plan, Phase IV, section FF26. He was concerned about removing the on-street parking on Prospect Street. He would like a reasonable guess as to when Phase IV might actually take place and who will pay for these improvements.

Commissioner Mabee mentioned that there is no guess as to when Phase IV might take place, but that the Transportation System Plan is development driven. Once development takes place in this area, the property owner might be required to upgrade the sidewalk or make improvements. If the current owner decides to do an addition that increases the home by a certain square footage, then they might be required to do the upgrades or improvements at that time. There are SDC fees that the City could decide to use to improve Prospect Street if the need is there and it becomes a priority. Then the last option is the neighbors could get together to form a Local Improvement District, increasing their taxes to improve the road and sidewalks.

3. Work Session

3a. 13-311 Presentation on the Clackamas County Transportation System Plan

John Lewis, Public Works Director, introduced Karen Buehrig, Clackamas County Transportation Planning Supervisor, who gave an overview of the Clackamas County Transportation System Plan and answered questions about the overlap of Clackamas County's plan and Oregon City's plan.

3b. 13-312 Presentation on the Geologic Hazards Overlay District

Pete Walter, Planner, presented on the Oregon City Municipal Code 17.44: Geologic Hazards Overlay District, explaining how natural hazard planning started with the Statewide Planning Goal 7. This goal defines what natural hazards are and requires local governments to adopt plans reducing risks to people and properties from natural hazards. The goal is implemented at the local level through the City's Comprehensive Plan, Zoning Code, and our Overlay District Code.

Mr. Walter mentioned he is to provide background information and sources of information and geological information that is specifically referenced in the City Code and on the Geological Hazard Overlay District map. These sources, many of which are provided by PSU and by the Department of Geologic and Minerals industries, are specifically referenced in the Code, and there is a requirement for any applicant who proposes development in the Geologic Hazard Overlay District to reference these sources of information when they are putting together a development proposal. In the presentation, Mr. Walter also went over what kind of review happens with concept plans. He wrapped up the presentation discussion with how the Transportation System Plan would tie into the Geologic Hazard Overlay. He pointed out that a lot of transportation improvements are developer driven, so if a new road is being constructed by a developer to access the development, that road will be subject to the same kind of review.

Commissioner McGriff left the meeting towards the beginning of this presentation.

3c. PC 13-045

Ancillary Uses Discussion

Tony Konkol, Community Development Director, presented options to amend the code or set policy on how to read the current code. This includes definitions for allowing other uses not covered by the current code related to manufacturing and retail in one building in the downtown area. Mr. Konkol stated the code has provisions for permitted uses, conditional uses, prohibited uses, and then there are uses that are missed. They are not identified in any of the current categories. He gave the example of a brewery that comes to downtown and has the restaurant/retail/bar portion which is permitted, and then the brewery decides to start manufacturing beer on site. This activity is not allowed, it's not conditional, it's not prohibited, it's silent. How much retail does the brewery have to do to be considered permitted?

Commissioner Mahoney asked if the code or the planning process gives the Planning Commission the authority to make the decision or distinctions if this would be manufacturing or if it would fit in a mixed use downtown.

Mr. Konkol replied this could be done by amending the code or setting a policy on how to interpret the code.

Commissioner Mahoney asked who would be the one interpreting the code? Mr. Konkol stated that would be written into the policy.

Mr. Konkol specified that more clarification of the code is needed regarding thresholds of when something becomes a permitted use versus prohibited. A question was raised as to how other cities are managing these types of things. Pete Walter, Planner, responded that some cities have this and some have a form-based code, which he is not necessarily advocating for at this point. Mr. Walter asked if there were uses that are potentially being displacing through this policy, that could possibly be seen downtown.

Commissioner Mahoney asked if staff could give the Commission the standards with more time to research. Mr. Konkol handed out a draft policy on ancillary related uses, read the document, and explained that this could be an option.

Chair Kidwell took a break in the middle of the discussion, but returned before the discussion was finished.

There was consensus that the Commission would like staff to do more research and bring this back for further discussion.

4. Community Development Director Communications

Tony Konkol, Community Development Director, reported that out of the 15 applicants, Walker Macy was the recommended consulting firm for the Blue Heron site. He reported there had been a small increase in development projects.

Pete Walter, Planner, gave an update on the South End Concept Plan. An open house was held on April 18, 2013 where he presented three alternative concepts and received feedback. The consultants are working on a concept based on the feedback, which will be presented to the public on June 1, 2013 at McLoughlin Elementary School at 1PM. A final presentation will be given when the preferred alternative or concept is completed. Mr. Walter indicated there are design and implementation challenges as the team moves from planning to preferred alternatives, then on to implementation.

A question was raised about how much feedback came from a web survey. Mr. Walter replied that there were about 50 comments this time and about 250 comments during the first round.

Commissioner Mabee complimented the Oregon City School District for its support by allowing the use of the schools.

5. Adjournment

The meeting was adjourned at 9:40 p.m.



City of Oregon City

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Meeting Minutes Planning Commission

Monday, April 22, 2013

7:00 PM

Commission Chambers

1. Call To Order

Chair Kidwell called the meeting to order at 7:00 p.m.

Present: 6 - Paul Espe, Damon Mabee, Denyse McGriff, Robert Mahoney, Charles Kidwell and Tom Geil

Absent: 1 - Zachary Henkin

Staffers: 6 - Carrie Richter, Pete Walter, Laura Terway, Tony Konkol, John Lewis and Christina Robertson-Gardiner

2. Public Comments

Christine Kosinski, resident of unincorporated Clackamas County, discussed a comment made at a prior meeting that people of Holly Lane are against growth and development. She wanted the Commission to know the residents of Holly Lane are not against growth and development, but instead would like to see smart development in the area that addresses safety and landslide concerns. Ms. Kosinski also thanked the Commission for their attention to detail, research and solution seeking.

3. Public Hearing

PC 13-033

CU 12-01, SP 12-19, VR 12-05: Conditional Use, Site Plan and Design Review, and Variance Application for new Modular 8-Classroom Building At Gardiner Middle School.

Chair Kidwell explained the rules related to the public hearing process. Mr. Kidwell asked if the commission had any ex parte contact to declare. Commissioner McGriff stated she sits on a board of directors that has property directly adjacent to the School District property and she received notice of the hearing. Commissioner Mabee excused himself because he is employed by the School District and that is his primary source of income. Commissioner Mabee left the dais to sit in the audience. Commissioner Espe declared he had a son enrolled in Gardiner Middle School last year and his wife also works for the School District. Carrie Richter, City Attorney, explained he would need to excuse himself due to his wife being employed by the School District. Commissioner Espe left the dais to sit in the audience. There were no other declarations of ex parte.

Pete Walter, Associate Planner, gave a description of the Site Plan and Design Review for the proposed module being requested from the Oregon City School District. Mr. Walter gave a background and history of the site. Staff recommended approval of CU 12-01, SP 12-19 and VR 12-05 as submitted by the applicant with the

recommended conditions of approval and with the exception of request for a variance from OCMC 17.52.040.B (number of bicycle parking spaces).

Commissioner Mahoney asked what would happen if the Commission approved the application with the variance. Mr. Walter explained that the building and the variance went hand and hand, and the applicant would be required to provide the full amount of bicycle parking spaces as a new rack in a new location.

Commissioner Geil asked how the students are currently parking their bicycles and how the variance affects the approval of the application.

Commissioner McGriff asked about the analysis of the landscape. Mr. Walter explained the proposed landscape and the requirements from the City. There was discussion regarding what types of trees would be planted in the landscape and trees that were going to be removed. The Commission discussed the lighting plan being proposed by the applicant.

Mr. Kidwell asked how staff came to the conclusion the applicant had met the building material requirements. Mr. Walter explained how staff came to that conclusion.

Chair Kidwell opened the public hearing.

Rick Givens, Planning Consultant working with the School District and Ted Thonstad, Director of Operations for the School District, were present representing the applicant, and Zach Stokes with ZCS Engineering was in the audience to answer any engineering related questions about the project. Mr. Givens discussed the project and the considerations that went into the project to provide adequate facilities to the students in the District while keeping to City Code requirements.

Mr. Thonstad discussed the reasons the School District decided to add sixth grade to the middle school. First, the 2 million dollar savings over the next three years to the School District; second, the new Common Core Standards adopted in 2010 which need to be implemented by 2014; third, better utilization of classroom space in the elementary schools. Mr. Thonstad addressed Commissioner McGriff's concerns regarding the proposed removal of trees and the reason for their removal.

Mr. Givens reviewed the conditions of approval suggested by staff. The School District would like to modify the existing bicycle racks and place all racks in a new location that added more safety. Regarding condition five, the School District proposed taking the wall out, extending the sidewalk and add a curve out for buses. They believed this proposal addressed bus safety concerns they have and would like the Commission to adopt this as part of their approval. There was further discussion regarding landscape and native plants versus non-native plants. The School District had no problem using native plants. They discussed the Commission's questions about this being a permanent structure or temporary and the cost savings to the School District for a modular building versus keeping the students at Mt. Pleasant.

William Gifford, resident of Oregon City, agreed with Commissioner McGriff regarding native plants. He asked if the Fire District had been out to the proposed site, and if the Commission or applicant had considered a covered walkway.

Damon Mabee, resident of Oregon City, discussed his concern for increased foot, bus, bike and car traffic to Hood and Ethel streets and the surrounding community. He suggested adding a continuous sidewalk from these streets to Linn Avenue. He was worried about the family homes near the abandoned schools and families moving away to an area closer to schools that were not abandoned.

Commissioner McGriff asked staff if there were any proposed plans to do any improvements in this area.

John Lewis, Public Works Director, stated he didn't know of any plans currently to add sidewalks to this area.

Commissioner McGriff suggested a work session to discuss the roads and sidewalks that surround the schools in the district.

Chair Kidwell called for a point of order and called the applicants up to address comments made.

Mr. Givens and Mr. Thonstad addressed the question regarding extra bus trips. Mr. Thonstad explained they will be using the same bus system and that didn't result in any extra trips. Additional traffic was detailed in the report from Lancaster. Mr. Givens affirmed the road met the fire safety requirements.

There was discussion regarding the amount of foot traffic to and from school versus bus traffic.

Tony Konkol, Community Development Director, discussed the transportation report by John Repplinger and the ADA sidewalk improvement on site, the bus pull-out on the north side and the landscaping requirements associated with the parking lot. Staff would be recommending the applicant consider making an adjustment and either put in additional sidewalk or a planter strip giving them the flexibility to meet the sidewalk standards and the planting requirements.

Carrie Richter, Attorney, would draft the conditions and include findings as part of the final decision that would support modifications for sidewalks.

Chair Kidwell closed the Public Hearing.

Pete Walter, Associate Planner, summarized the application, traffic analysis report from John Repplinger and recommendations from staff.

Commissioner McGriff suggested Pete Walter work with the School District on the native plants list for the project.

Commissioner Mahoney, doesn't see any adverse effects on the community.

Carrie Richter, Attorney, read into the record the conditions of approval for conditions number seven (OCMC 17.52.060(C)1(A)) and five (OCMC 17.52.040) as set forth by staff and the Planning Commission.

A motion was made by Commissioner McGriff, seconded by Commissioner Geil, to approve CU 12-01, SP 12-19, VR 12-05, Conditional Use, Site Plan and Design Review, and Variance Application for new Modular 8-Classroom building at Gardiner Middle School with the amended conditions of approval. The motion carried by the following vote:

Aye: 4 - Denyse McGriff, Robert Mahoney, Charles Kidwell and Tom Geil

Excused: 2 - Paul Espe and Damon Mabee

PC 13-012

19370 Pease Road: Request for a Zone Change and approval of an 11-lot subdivision and geologic hazards review. Planning Files ZC 12-01, TP12-04

and US 12-01.

Chair Kidwell explained this item was continued from a previous meeting. Mr. Kidwell asked if the Commissioners had any ex parte contact to declare. Commissioner Geil, Mahoney, Espe and Mabee had visited the site.

Laura Terway, Planner, gave a brief overview of the proposed development. This application was for a zone change from R-10 to R-6 and approval of an 11-lot subdivision and geologic hazards review. Subject site is adjacent to Pease Road and a little over 2 acres. Conditions of approval include demolition of the existing single family home and accessory building before being platted. Site was annexed in 2008 and annexation agreement included the fee of \$3,500 for each lot. Site is adjacent to R-6 and R-8 lots. Ms. Terway gave the conditions of approval and traffic impacts. Stormwater concerns were brought up at the last meeting. Ms. Terway introduced Todd Martinez and Gordon Monroe who would discuss the stormwater concerns.

Todd Martinez, Project Engineer, and Gordon Monroe, Kennedy Jenks Consultants, were there to address the concerns related to stormwater issues.

Commissioner McGriff wanted to make sure they would be discussing the stormwater concerns that were not addressed in the report. Staff assured her they would.

Mr. Monroe, discussed the discharge location and the potential impact to another home owner. The proposal is for lots 1-6 and 10-11 to be diverted and go down to a stormwater basin located in Pavilion Park 1, the only stormwater that will be going into the existing stormwater drainage are lots 7, 8 and 9. The proposal includes Kennedy Jenks Consultant review the data once the homes are built to determine if there is less stormwater going there after the development than before. If not, then the applicant would be required to mitigate and improve the site. They have also suggested that lots 7, 8, and 9 have soaking trenches, acting as detention and mitigating the flow of water. Storm drainage study will be continuous throughout the process. The proposal showed that diverting two-thirds of stormwater to a new catch basin would either keep the flow the same or less than. If the flow of stormwater is greater, then they are required to build new improvements across the property.

Commissioner Geil asked when the data was taken.

Mr. Monroe explained when and how they gathered the data.

Mr. Mahoney asked if this will help the neighboring house with runoff of stormwater.

Mr. Monroe stated that the runoff will either be the same or less than what occurs now. The impact from the subdivision will not make the matter worse based on what the applicant has proposed and the conditions of approval.

Carrie Richter, City Attorney, explained they are discussing condition no. 28 and that they could delete the last sentence deferring determination to city staff, and instead review the updated data report through a type II procedure thereby allowing neighbors the opportunity to comment and potentially appeal to the planning commission for further review.

There was discussion regarding the current stormwater conditions in the neighborhood, how the addition of the new subdivision would affect current conditions and who would be responsible for future stormwater conditions and concerns.

Todd Martinez, Project Engineer, continued with the presentation, discussed the road and alignment improvements to Pease Road, and lighting.

Commissioner Geil discussed his concerns regarding driveway entrances backing out onto the main road.

Mr. Konkol explained that Pease Road is considered a neighborhood connector and not a main road.

Ms. Terway, explained the driveway condition of approval for lots 8 and 9. If the applicant wanted the driveway of lot 8 to face Pease Road, staff suggested combining the driveway for lot 8 and 9. Ms. Terway continued to discuss the criteria for the conditions of approval.

Commissioner Mabee asked about the police fee associated with the annexation.

Ms. Terway explained the annexation agreement required a fee of \$3,500 per lot to pay for police and that the fee was included with the building permit process.

Chair Kidwell called the applicant to speak.

Rick Givens, Planning Consultant for the applicant, and Bruce Goldson, Theta Engineering, discussed the data in the report related to stormwater and the suggested language to condition no. 28. The applicant preferred the suggested language be added to condition no. 28 that kept it at the staff level as opposed to requiring it be handled as a type II decision.

Mr. Givens discussed the change from R-10 to R-6 and asked if the commission had any further questions regarding the zone change.

Chair Kidwell asked if they had followed up to evaluate what the impact R-8 would have to the site.

At this time, the applicant entered into the record an updated stormwater document and maps of the site.

Mr. Givens discussed the difference between R-8 and R-6 and how zoning of R-8 would affect the site versus the requested R-6 zone and the reasons why the applicant is asking for R-6 zoning and the history behind the development of the property.

Commissioner Mabee asked for confirmation regarding zero runoff of additional stormwater. The applicant confirmed.

Chair Kidwell opened the public hearing.

Jeff Strohecker, resident of Oregon City, was concerned there was not enough existing stormwater data at the site to determine if there is an increase to the stormwater once the subdivision were to go in and expressed his concern in determining the responsible party if there is an increase in stormwater to the existing home owners in the area.

Linda Strohecker, resident of Oregon City and property owner adjacent to proposed site, expressed her concerns about traffic increase on Pease Road, the increase of water at the property and water runoff once the subdivision was built.

Christine Kosinski, resident of unincorporated Clackamas County, discussed her concerns related to water drainage and the possibility of landslides to the site.

Chair Kidwell called the applicant back to address citizen comments.

Mr. Givens, said they understood the water concerns from other homeowners in the area and stated the applicant is supportive of the conditions of approval. Mr. Givens briefly discussed the traffic report and the issue of potential landslides in proximity to the detention ponds on the site.

Commissioner Mabee, asked staff how water levels are measured.

There was discussion regarding how water levels are measured.

Chair Kidwell closed the public hearing.

Carrie Richter, City Attorney, explained the new stormwater documents which have been entered into the record by the applicant and rules related to closing the public hearing. Ms. Richter explained the Commission has two options: to leave the record open or close the record.

Mr. Konkol explained this was typical and staff has reviewed the new material and set forth condition no. 28 with staff's recommendation of approval.

Commissioner Geil discussed his concerns with traffic safety.

Ms. Terway explained condition no. 11, and the requirement of our code is to orient towards Pease.

A motion was made by Commissioner Mabee, seconded by Commissioner Espe, to approve, Planning Files ZC 12-01, TP 12-04, and US 12-01, Development of 12370 Pease Road to include conditions of approval. The motion carried by the following vote:

Aye: 5 - Paul Espe, Damon Mabee, Denyse McGriff, Robert Mahoney and Charles Kidwell

Nay: 1 - Tom Geil

PC 13-028

L 13-01: Transportation System Plan (TSP)

L 13-02: Associated Amendments to the Oregon City Municipal Code

Tony Konkol, Community Development Director, recommended in the interest of time to take public comments first.

Chair Kidwell opened the public hearing.

Bob Nelson, resident of Holly Lane, presented a map and discussed his concerns regarding landslides that have occurred in the past, possible future landslides and the cluster of water infiltration in this area if this becomes a major road. He was requesting Holly Lane be removed from the TSP.

Christine Kosinski, unincorporated Clackamas County, representing the hamlet of Beaver Creek, discussed concerns to TSP upgrades to Holly Lane, residents of Holly Lane being left out of the noticing process, concerns related to landslides on Holly Lane and Hwy. 213, concerns regarding compliance of State Goals 1 and 7 and requests the City to meet with the residents of the hamlet of Beaver Creek.

John Lewis, Public Works Director, explained the Beavercreek hamlet residents were invited to stakeholders meetings and that posters were placed outside Oregon City including Beavercreek.

Laura Terway, said the hamlet of Beavercreek is identified on the stakeholder team and included in emails. She explained that residents of Holly Lane were mailed a notice.

Commissioner Mahoney believes the City does a good job of noticing.

Jackie Cowell, resident of Holly Lane, explained that she did not receive a notice from the City. She was only aware because Christine Kosinski informed her and together they noticed residents of Holly Lane.

Chair Kidwell, closed the public testimony of the hearing.

Laura Terway, Planner, and Christina Robertson-Gardiner, Planner, gave a presentation on the public process for the TSP, transit, map of the regional center, work with the County on Holly Lane, and geologic hazards.

There was discussion regarding Holly Lane and it being the jurisdiction of the County.

Commissioner McGriff was concerned about geologic hazards and looking at the bigger picture.

Ms. Gardiner explained it is difficult to plan in areas outside the City without knowing if an area will be annexed into the City.

There was discussion about the TSP, geologic study, parking management plan and funding, Holly Lane, and involvement from the County. The Commission discussed whether to close the public hearing, deliberate and bring this item back to the next meeting or if there was consensus to vote on this tonight.

Commission consensus was recommendation to the City Commission to reduce the downtown area by 50% and defer 35% percent in the McLoughlin District at this time and require a geologic hazard study for any road that is developed in any hazardous zone prior to development.

A motion was made by Commissioner McGriff, seconded by Commissioner Espe, to recommend to the City Commission approval of L 13-01, Transportation System Plan (TSP) L 13-02, subject to the two recommendations by the Planning Commission. The motion carried by the following vote:

Aye: 6 - Paul Espe, Damon Mabee, Denyse McGriff, Robert Mahoney, Charles Kidwell and Tom Geil

4. Communications

5. Adjournment

Chair Kidwell adjourned the meeting at 11:52 P.M.



City of Oregon City

625 Center Street
Oregon City, OR 97045
503-657-0891

Staff Report

File Number: PC 13-080

Agenda Date: 11/25/2013

Status: Agenda Ready

To: Planning Commission

Agenda #: 4a

From: Planner Pete Walter and Community Development

File Type: Planning Item

SUBJECT:

L 13-03: Adoption of South End Concept Plan - Comprehensive Plan Amendments

L 13-04: Associated Code Amendments for Adoption of the South End Concept Plan

RECOMMENDED ACTION (Motion):

Staff recommends that the Planning Commission open the first evidentiary public hearing for planning files L 13-03 and L 13-04, consider staff's presentation, take public testimony and continue the public hearing for L 13-03 and L 13-04 to December 9, 2013.

BACKGROUND:

At the November 12, 2013 joint workssion, staff and consultants presented a brief overview of the draft South End Concept Plan.

The concept plan must show compliance with Metro Title 11, Planning for New Urban Areas, and with Metro Ord. 02-9698B Conditions of Approval for Expansion of the Urban Growth Boundary. Amendment of the city's Comprehensive Plan requires findings of compliance with Statewide Planning Goals, City Comprehensive Plan Goals and Policies, and the Transportation Planning Rule OAR 660-12.

Staff is preparing a detailed draft staff report with findings for the above mentioned regulations and will present those findings at the December 9, 2013 public hearing. Please refer to the attached staff memorandum for further explanation.

The Metropolitan Service District (Metro) requires governing jurisdictions to adopt comprehensive plan provisions for areas brought into the urban growth boundary (UGB) to guide the orderly and efficient conversion from rural to urban uses. The South End Concept Plan establishes a framework of policies and implementing ordinances before annexation can take place and urban-level development can occur. A product of extensive community engagement and technical analysis, the South End Concept Plan is adopted as an amendment to the City's comprehensive plan and zoning code, which must comply with Metro code and DLCD requirements. In compliance with Title 11 of Metro's Urban Growth Management Functional Plan, elements of the South End Concept Plan include housing, transportation, natural resources, parks and trails, public facilities and services, schools and financing. In accordance with the Oregon City Comprehensive Plan, the South End Concept Plan also includes commercial designations in an amount sufficient to serve the needs of the South End neighborhood.

The following documents are provided:

- Memorandum dated November 19, 2013, from Associate Planner Pete Walter explaining outstanding analysis and findings.
- Plan Draft Document
- Concept Map
- Draft Comprehensive Plan Designation Map
- Draft Code Language
- Adoption Schedule
- Appendices
- Public Works Department Comments on the Draft Plan from City Engineer, Aleta Froman-Goodrich

BUDGET IMPACT:

Amount:

FY(s):

Funding Source:



MEMORANDUM

To: Planning Commission
From: Pete Walter, AICP, Associate Planner
Re: South End Concept Plan
Date: November 19, 2013

At the initial public hearing for the South End Concept Plan on November 25 the meeting format will be primarily informational and for the public to provide testimony, however Staff will not be presenting findings or a recommendation until the subsequent Planning Commission public hearing on December 9, due to the need to prepare additional analysis and findings.

This memorandum provides a brief summary of the additional analysis staff is preparing for regulatory compliance of the proposed South End Concept Plan with Metro Title 11 and Oregon City's Comprehensive Plan.

At the November 12, 2013 joint work session, staff and consultants presented a brief overview of the draft South End Concept Plan.

The concept plan must show compliance with Metro Title 11, Planning for New Urban Areas, and with Metro Ord. 02-9698B, Conditions of Approval for Expansion of the Urban Growth Boundary. Amendment of the City's Comprehensive Plan requires findings of compliance with Statewide Planning Goals, City Comprehensive Plan Goals and Policies, and the Transportation Planning Rule OAR 660-12.

Staff is preparing additional analysis and findings to clearly show how the South End Concept Plan complies with the following aspects of Title 11:

Comprehensive Plan Designations

Staff is analyzing the Comprehensive Plan Designations on the current draft to assure that the plan provides the needed amount of housing units as required by state law and Metro regulations. We will be providing further details at the public hearing on December 9.

Metro Title 11

The current draft states "State and Metro requirements indicate that UGB expansion areas within the Metro region must provide for average densities of 8 units per acre for areas added prior to



2002 and 10 units per acre for areas added in 2002 or later. The net developable area of the pre-2002 expansion area is 196 acres, resulting in a need to provide for approximately 1,568 dwelling units at 8 units per acre. The net developable area of the 2002 expansion area is 133 acres, resulting in the need to provide for 1,330 dwelling units at 10 units per acre. Therefore the Metro target for the provision of total units in South End is approximately 2,898 units.”

The 329 total acres based on what is deemed “developable” above is 43 acres more than the initial 286 acres considered “buildable” as part of the initial Existing Conditions analysis because the “developable” total includes areas that are already committed to large lot subdivision in the planning area that could be redeveloped at higher densities that were not previously considered.

For the purposes of meeting Title 11, staff is reviewing this difference in acreage to determine whether changes are necessary to the housing unit calculations to include this additional acreage as redevelopable and thus requiring an increase in the total number of units to be provided. Some additional Medium Density Residential and High Density Residential land use designations may need to be added to the Draft Comprehensive Plan Map to match the concept plan and to accommodate additional needed housing units in order to achieve compliance.

A detailed revision to these calculations is being prepared and will be evaluated. These revisions may affect the concept plan diagram itself, but would primarily affect the draft Comprehensive Plan Map, the Land Use Evaluation Appendix B and the land use and housing section of the plan on pages 15 and 16.

Metropolitan Housing Rule

The city is responding to DLCD comments regarding the plans compliance with the Metropolitan Housing Rule. Specifically the DLCD Housing Specialist indicated the following:

- The plan indicates that it does not meet either Metro’s 10 dwelling units per acre (du/ac) standard for UGB areas added in 2002 or after (134 of the 400 acres were added in 2002), or our Metropolitan Housing Rule standard of 8 du/ac. The plan states that the city believes it is “substantially compliant” because our 8 du/ac rule applies to the entire city, not just the concept plan area, and the South End area is on the urban fringe where lower densities are more appropriate – significant testimony was received that residents don’t want to lose the “rural character” of the community. The revised staff report will contain findings explaining how “substantial compliance” is achieved given the housing density calculations City-wide.
- The city will need to show that it actually meets the 8 du/ac. standard for the entire city with some mathematical calculations. Alternatively, the city is very close to 8 du/ac anyway in this plan.



- It may be necessary to add additional units by switching 12 of the 197 low density residential acres to medium density residential acres (increasing the later from 106 to 118). This would be the most appropriate way to increase density, rather than increasing the acreage dedicated to the high density category on the outer fringe of Oregon City.
- The document doesn't address whether the "50-50" part of the Metropolitan Housing Rule is met. The plan needs to state the medium density zoning districts allow attached dwelling types (which it does) in order to meet the standard. But the City needs to confirm this.
- The public facilities financing portion of the document indicates projected costs of infrastructure. On page 45, the cost per equivalent residential unit is \$11,777. On pg. 46 there is a table listing potential funding mechanisms. DLCD suggests that the city compare its costs and funding sources with the lodestone of difficult public facilities financing UGB expansion areas, North Bethany in Washington County, and determine if there is a real funding problem that the city needs to address, and how the city would address it. The staff report will address this as well.

Zoning Code

- Staff is reviewing the need for additional development code recommendations made by the consultant in Appendix D. Specifically staff will make a recommendation regarding the following:
 - Clustering of development in single-family; and
 - Whether to delete/amend 17.68.025 annexation/zoning correlation chart.
- Existing conditions to include discussion of soil types?

Implementation – Public Facilities (Sewer, Water, Stormwater)

- City Engineer Aleta Froman-Goodrich has compiled a set of comments and suggested clarifications to the plan (Attached). In addition to these comments:
- The plan will include a set of assumptions for when green street and low impact development practices can be applied based on soil conditions.

Implementation – Parks Funding and Financing

- Further discussion will be provided regarding options for how to pay for park facilities – including land underneath utility corridor and powerline easements.
- Pages 30 and 31, further explanation of delaying various water and sewer studies and plan updates

Transportation Planning Rule OAR 660-12 / Metro RTP



- As part of the findings, staff will include findings for compliance with the statewide Transportation Planning Rule and the Metro Regional Transportation Plan. These findings will be supplement the work done with the recent adoption of the City's Transportation System Plan in August 2013, which includes and corresponds with the concept plan and used the same growth assumptions for the South End area of the Oregon City.
- Additional findings for TPR compliance at the intersection of OR 99 and South End Road intersection, south toward Canby.

Miscellaneous Corrections, Formatting and Maps

- Improve map resolution, existing street labeling and overall graphic quality. Due to number and complexity of many of the graphics, the overall quality was reduced in the draft. The final draft will correct this.
- Sidebar captions will be added where missing.
- Pages: i, ii (road near Metro property), 1, 2 (process), 5, 8-9 (parks and trails), 23 (local v. family friendly clarification), 25, 26, 37 (schools), 46 (in relation to 22-23)
- Update Stormwater Figure and adjust following figure numbers accordingly
- Add fire protection discussion
- Add concept plan diagram legend, city limits and UGB
- On page 12 of Appendix C the multi-modal street system map is mirrored (the text and map are backwards). This will be corrected.

Staff is preparing a detailed draft staff report with findings and will present those findings at the December 9, 2013 public hearing.

TO: Planning Commission

CC: Tony Konkol, Community Development Director
Pete Walter, Planner and SECP Project Manager

FROM: Public Works Engineering Group
John Lewis, P.E., Public Works Director
Aleta Froman-Goodrich, P.E., City Engineer
Erik Wahrgren, P.E., Project Engineer
Todd Martinez, P.E., Project Engineer

DATE: November 15, 2013

SUBJECT: Public Works Engineering Group Comments on the South End Concept Plan
Final Draft (90%) and Appendices

Enclosed you will find written comments regarding the South End Concept Plan Final Draft (90%) and the Appendices A, D, and G from the Public Works Engineering Group (PW Engr). PW Engr comments to be included as part of the public record for the public hearing that will be held at the Planning Commission meeting on November 25, 2013.

The following is a list of the documents and page numbers for the sections that PW Engr comments were prepared.

1. South End Concept Plan Final Draft (90%)
Pages 8, 13, 21, 23, 24, 27, 30, 32, 33, 34, 35, 36, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52
2. Appendix A. Existing Conditions
Pages 25, 26, 27, 28, 29, 30, 31
3. Appendix D. Public Infrastructure
Pages 1, 2, 3, 4, 5, 6, 8
4. Appendix G. Public Facilities Future Costs
Pages 1, 2, 3

Recommend revising Sanitary Sewer section with similar language as the following:

The only areas serviced by City wastewater collection are the lands located within the City limits in the northeast and east sections of the planning area. The majority of the homes within the planning area are outside city limits and currently on septic systems. Areas within the Plan area that are inside the City limits currently either flow by gravity to South End Road or Parrish Road pump station where the wastewater is pumped to a manhole in South End Road south of Glacier Street. It then flows by gravity northward through the trunk line collection system to the wastewater treatment plant.



I really like emphasizing access for everyone to the views and beauty of the area.



are intermixed with unincorporated and incorporated properties. Areas outside of the City limits are serviced by Clackamas River Water District (CRW).

Stormwater

The planning area falls within the Amanda Court, Allen Court, and South End drainage basin areas as shown in the City of Oregon City Drainage Master Plan (January 1988). These basins are part of tributaries that drain to the Beaver Creek. Stormwater within the study area is currently being managed by a combination of roadside ditches, natural drainage channels, and underground storm conveyance systems. Additionally, there are a handful of existing detention ponds within the City's boundaries that service existing subdivisions and a privately owned detention pond located along the southeast side of South End Road and Kelland Court.

Sanitary Sewer

The only areas serviced by City wastewater collection are the lands located within the City limits in the northeast and east sections of the planning area. The majority of the homes within the planning area are outside city limits and currently on septic systems. The City Sanitary Sewer Master Plan indicates that the areas within the Plan boundary will drain to the South End Basin and appear to be able to handle the load at build out to urban densities. Areas within the Plan area that are inside City limits convey flows to the Parrish Pump Station to the wastewater treatment plant.

Natural Resources

Two potentially jurisdictional wetlands and seven other waters of the State/United States comprising approximately 3.7 acres and 2.38 acres respectively were identified within the Plan area. Most of the wetland acreage is comprised of a somewhat linearly-shaped depression along a stream channel located in the northernmost portion of the study area. The other wetland area is east of the intersection of Forest Ridge Road and South End Road, near the confluence of two channels.

There are no significant natural areas in South End as defined under Oregon Statewide Land Use Planning Goal 5. However, the Canemah Bluffs Natural Area is directly adjacent to South End and overlook the Willamette River. The Willamette River is an American Heritage River and the Willamette River Water Trail is one of 14 nationally recognized water trails. There are several existing wildlife habitat types in the area, including approximately 102 acres of forested area and 43 acres of open grass space.

Parks and Trails

There are no public parks within the South End study area—existing open space is privately owned and maintained and signed as restricted access. Residents living in South End can utilize nearby Madrona Open Space, owned by the City, and John McLoughlin Elementary School open space, owned by the Oregon City School District. Currently in South End, there is a precedent for privately maintained open spaces. South Park Estates, Finnegan's Terrace and Merchant Meadows are

Figure 4. Concept Plan Diagram

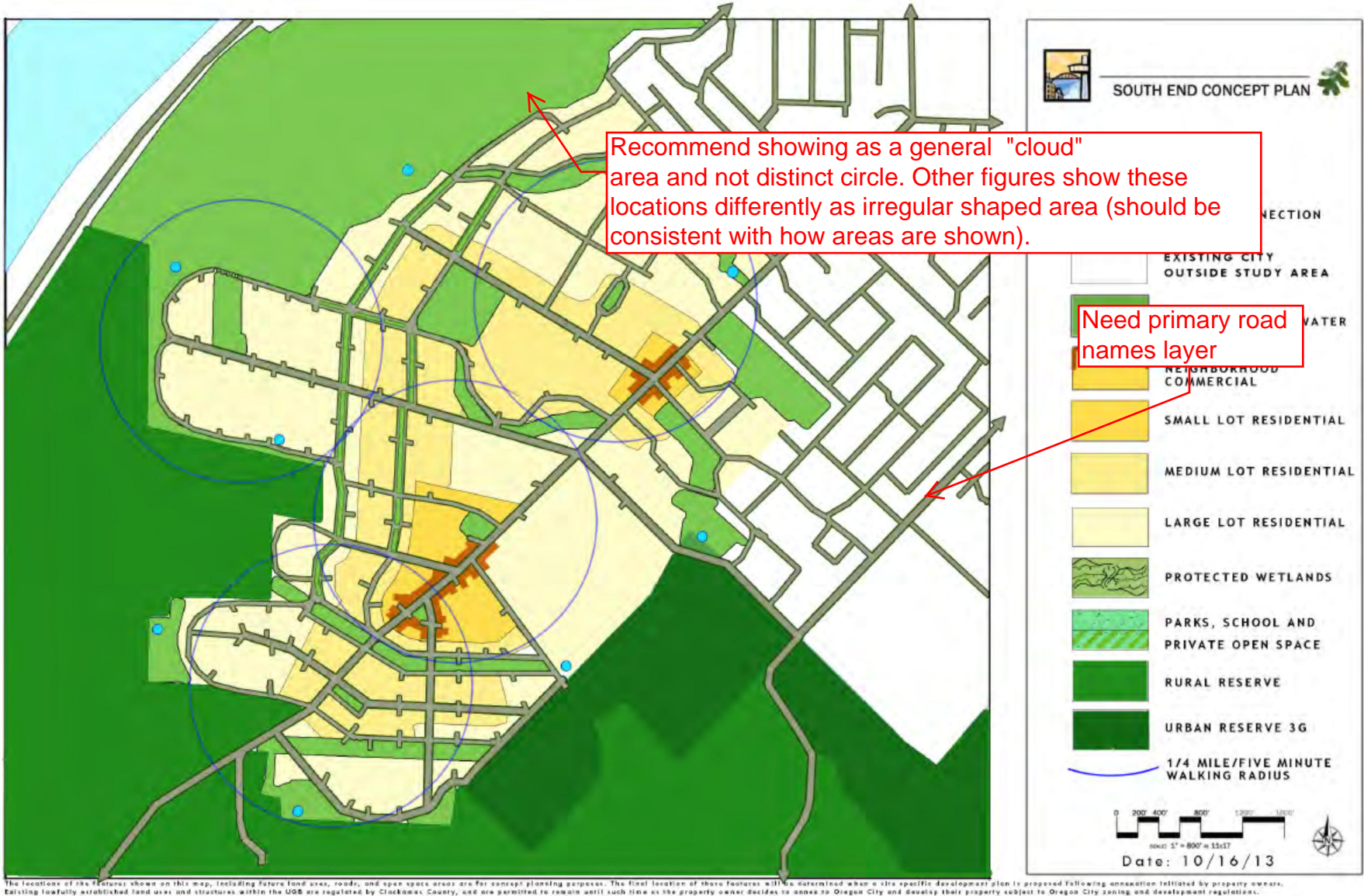
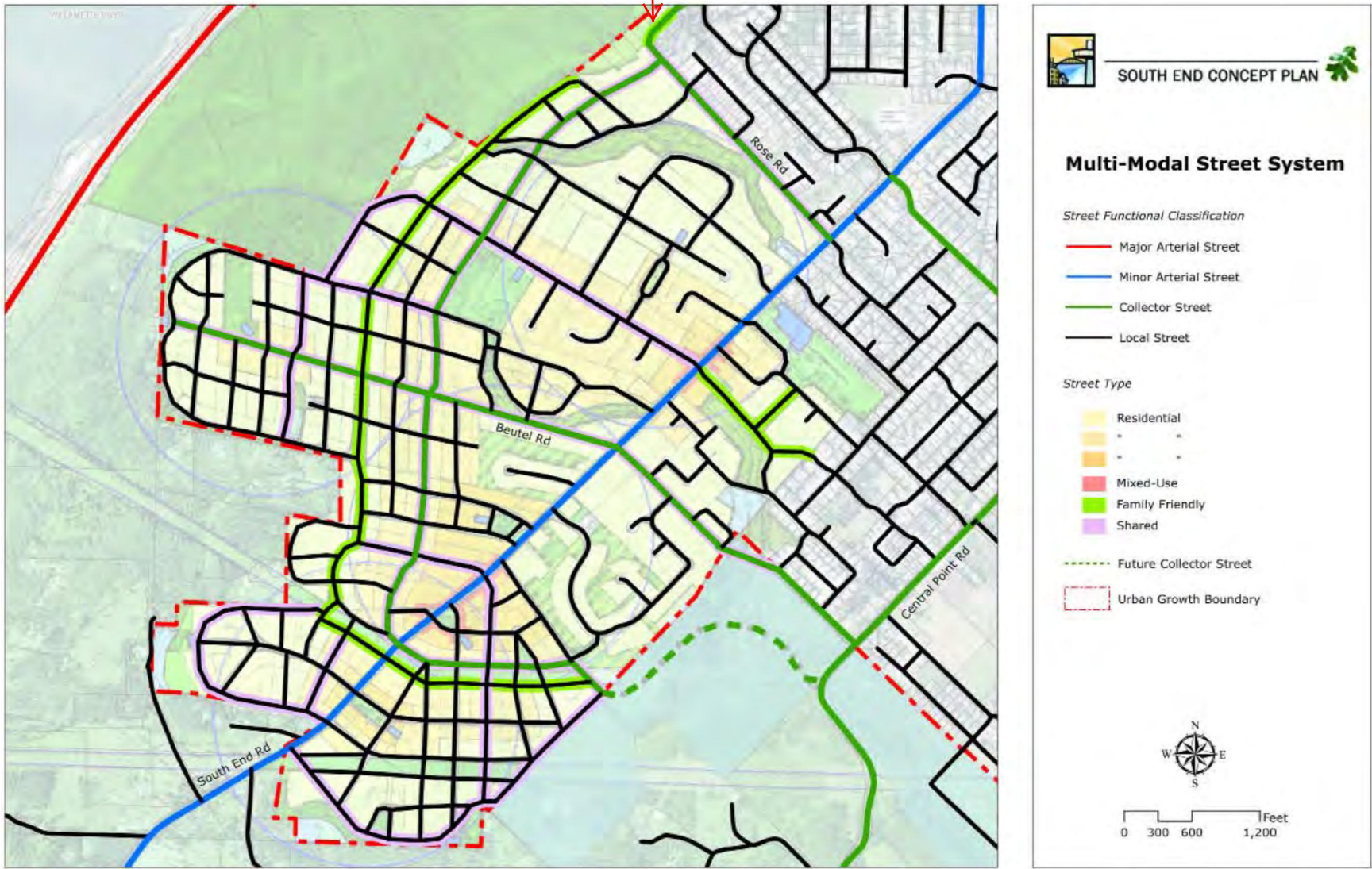


Figure 7: Multi-Modal Street System



Add the text to identify what this is.

- **Residential Streets** are generally surrounded by residential uses, although various small shops may be embedded within the neighborhood. These streets often connect neighborhoods to local parks, schools and mixed-use areas. They are designed to emphasize walking, while still accommodating the needs of bicyclists and motor vehicles. A high priority is given to design elements such as traffic calming, landscaped buffers, green street treatments, walkways/ pathways/ trails, on-street parking and pedestrian safety enhancements.

- **Family Friendly Streets** to help encourage active transportation by providing comfortable, low-stress routes between neighborhoods and local parks, schools, and shopping areas. The network generally serves as a greenway that links parks, schools, jobs and other destinations in the City through a network of shared-use streets and off-street shared-use paths. These routes are considered walking and biking streets that are also used by motor vehicles for local access.

Local streets are modified to prioritize the through-movement of bicyclists and pedestrians while maintaining local access for automobiles. These routes include wayfinding signage and pavement markings, and commonly make use of traffic calming features that reduce motor vehicle speeds and discourage through traffic. Where these facilities cross major roadways, safe and comfortable pedestrian and bicycle crossings are provided. Further enhancements may include “green street” features such as bioswales and street trees, pervious concrete or asphalt, in addition to wider sidewalks and improved pedestrian amenities, such as benches and pedestrian-scale lighting.

- **Shared Streets** are roadways where bicyclists and motorists share the same travel lane. The most suitable roadways for shared bicycle use are those with low speeds (25 mph or less) and low traffic volumes (3,000 vehicles per day or fewer). These streets serve to provide continuity to other bicycle facilities (e.g. bicycle lanes) and should include shared lane markings. Common practice is to sign the route with standard Manual on Uniform Traffic Control Devices (MUTCD) green bicycle route signs with directional arrows. Shared roadways can also be signed with innovative signing that provides directional information in terms of bicycling minutes or distance (e.g., “South End Road, 3 minutes, ½ mile”).

Design Elements for Streets

To better represent and strengthen the rural character of the South End Concept Plan area, and to further enhance planned driving, walking and biking infrastructure, the City should implement the following design elements as appropriate:

- ~~Permeable pavement~~
- Bioswales
- Stormwater planter boxes
- Green parking
- Traffic calming

Delete
Recommend for
private pavement
only



An example of permeable pavers



An example of a planter box adjacent to the sidewalk

*Preserve open space,
not just in parks, but
in gardens and areas
of working landscapes
where small farming and
woodlots provide more
options to wildlife than
just suburban housing.*

Add the text to
identify what this is.

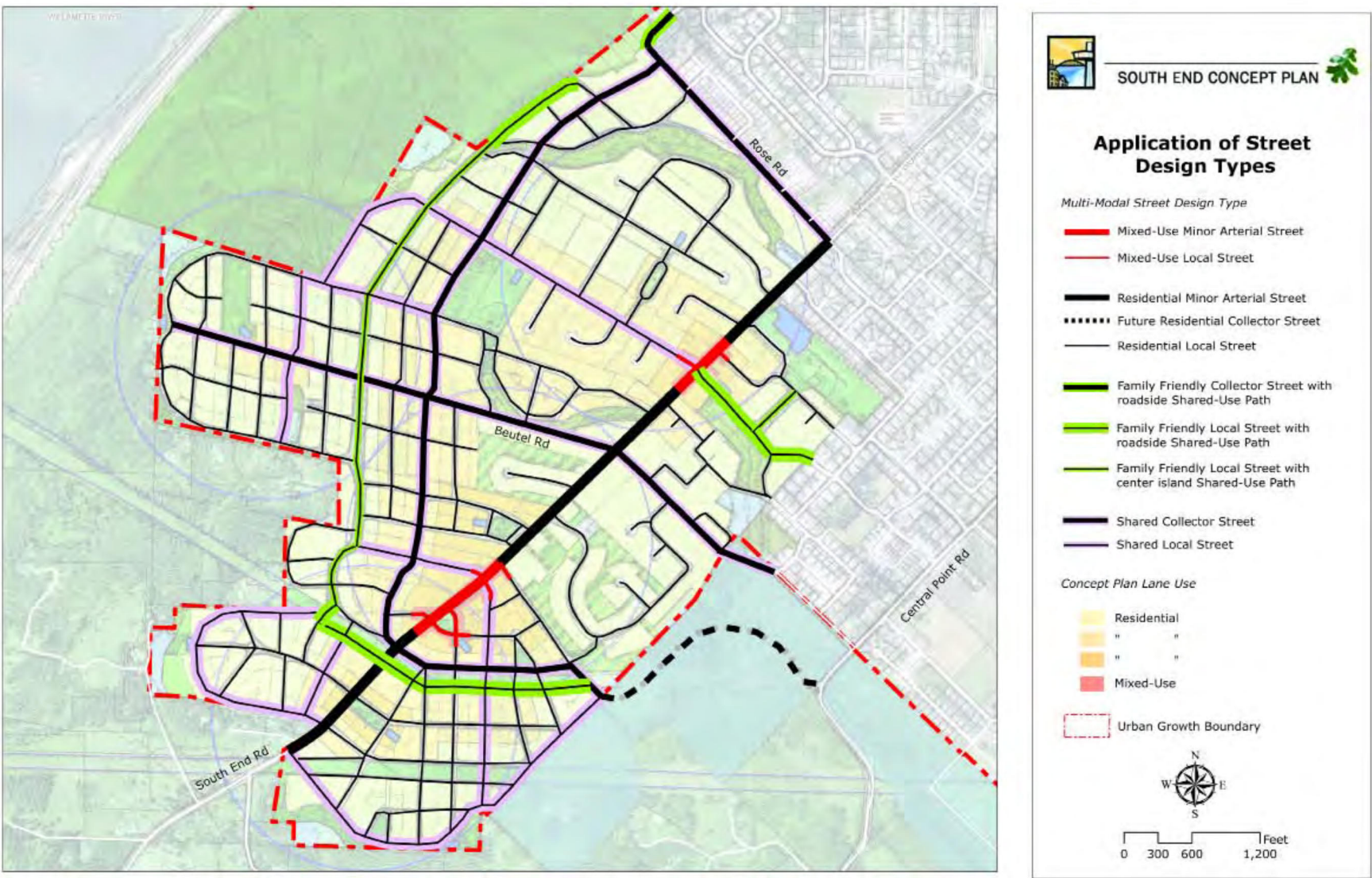


Figure 8: Street Design Types

Add the text to
identify what this is.

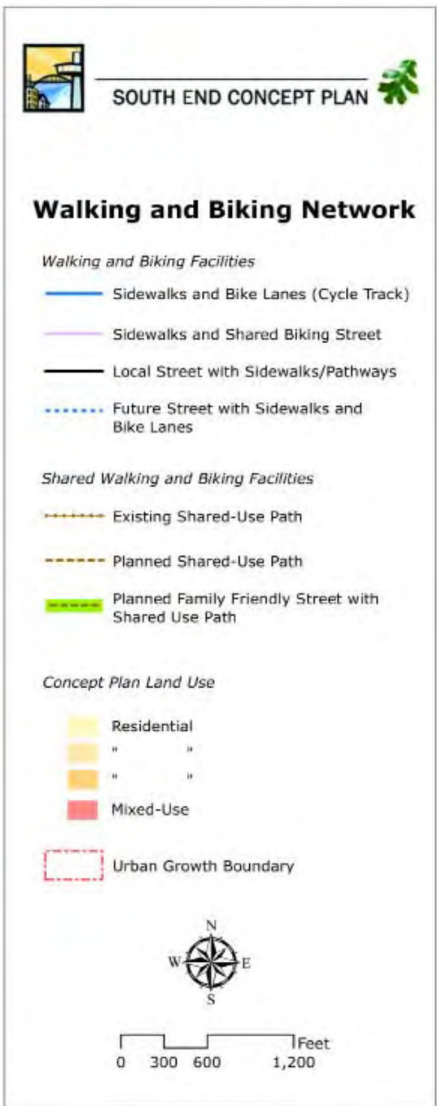
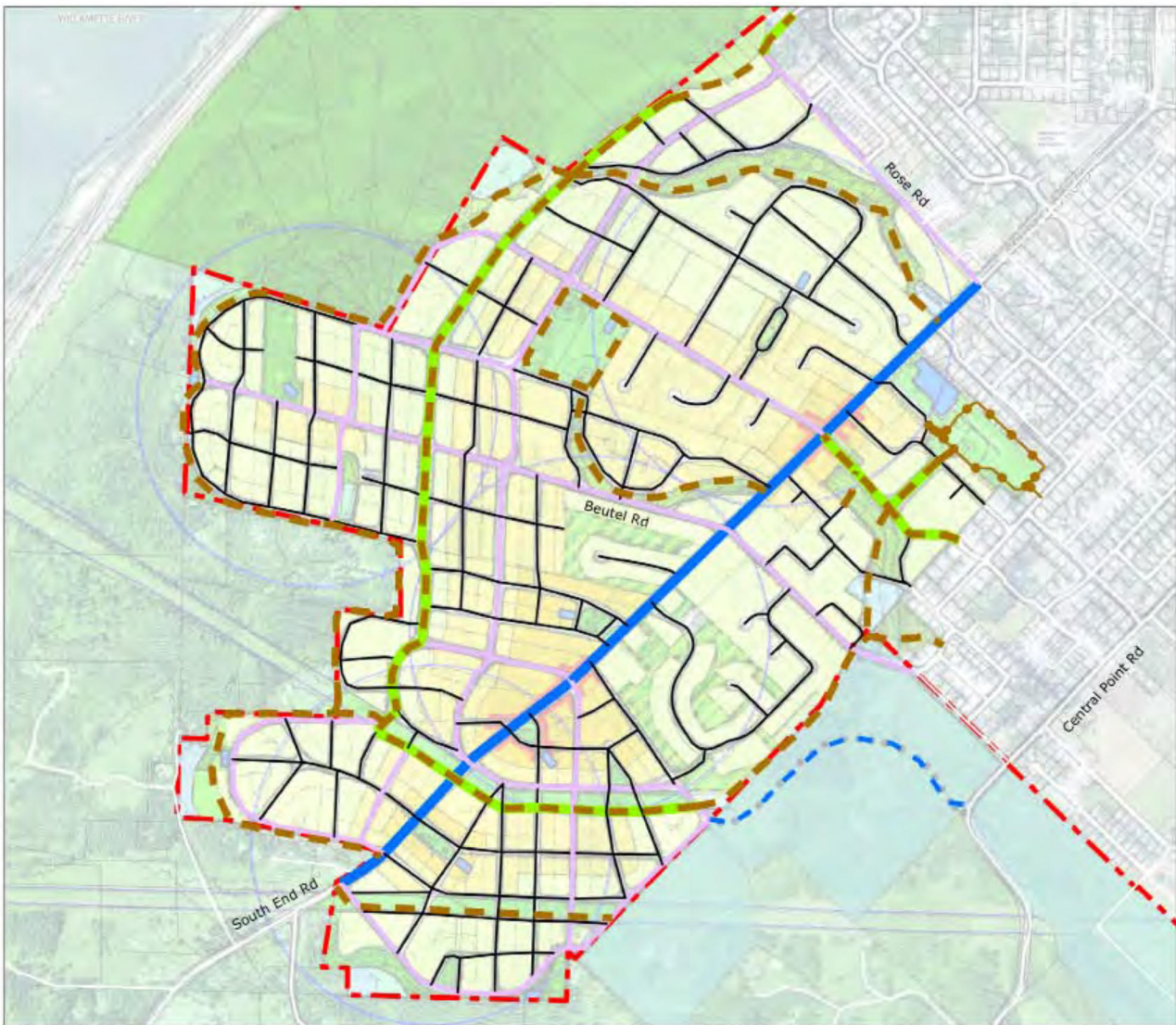


Figure 9: Walking and Biking Network

Public Infrastructure and Services

Water

The existing Oregon City water system is expanded to serve the entire South End Concept Plan area. Based on the 2002 UGB, stated and delineated within the 2012 City of Oregon City Water Distribution System Master Plan, all existing and proposed water mains, lines and services are incorporated under the ownership of Oregon City. Ownership of the Clackamas River Water (CRW) system is incorporated into Oregon City's water distribution system. CRW facilities may not be designed to handle urban levels of development and will need to be improved, expanded or replaced to continue to provide water service to corresponding customer areas. The existing CRW water system should be analyzed further to determine the need for replacement. The Master Plan forecasted sufficient water supply to accommodate build out in the South End Zone. However, the South End Concept Plan proposes development beyond what is shown in the Master Plan. Maximum Daily Demand (MDD) available pressure and available fire flow should be re-evaluated to account for the zoning densities shown on the current concept plan. As the annexation process occurs, the City will notify and work with CRW and its customers to assure transfer to the city water system transpires in a methodical way and rate payers are aware and informed of the process.

Add:
and the City's
water system is
expanded



Add:
water quality and

Distribution Improvements

The proposed water main system improvements are shown in Figure 11. Water main improvements consist of new water mains ranging from 8-inches to 12-inches, unless stated otherwise. Several connections are made to both the existing City of Oregon City water main and CRW main, located along South End Road. The most significant extension is the connection to the existing 12-inch main, located northwest of South End Road at the intersection of South Rose Road and South Deer Lane. A new 12-inch main runs southwest along the extents of the concept plan boundary. The 12-inch main connects back to South End Road within a street located southwest of the intersection of South Impala Lane and South End Road. Numerous 8-inch mains are constructed within the proposed street layout. The grid network created by this new system layout provides a looped distribution system, reducing the chances of pressure issues. All pipe size estimates are preliminary and should be revised with detailed flow modeling. The pipe sizes assume that the flow velocities are kept at or below 10 feet per second. Site specific studies should be performed as development occurs to test and confirm available fire flows and minimum pressures can be achieved, as outlined in the *2012 Water Master Plan, Table 4-1: City of Oregon City Planning and Design Criteria*.

Stormwater

The City Engineering Division is creating a new series of Low Impact Design (LID) standards. Therefore, a low impact stormwater approach is recommended for the planning area. Providing LID standards to the planning area limits the impact to existing and aging storm systems and reduces the infrastructure required to service the area. LID approaches mimic the natural hydrology of the catchment area. The approach manages stormwater within each basin, separating the basin into several smaller sub-basins. The stormwater within each basin can be managed utilizing the following categories: individual sites, streets and regional facilities. Figure 12 shows

expensive to construct since they are conventionally three feet or more below ground. On busier streets such as South End Road, an underground conveyance system is likely more practical.

Sanitary Sewer

The three drainage basins in the study area require pump stations and gravity sewer lines. Each pump station pumps discharge a short distance to gravity lines from each basin that convey discharge to the intersection of South End Road and Beutel Road. A new pump station and force main pump the effluence to the South End Road Interceptor, located at the intersection of South end Road and Glacier Court. An alternate to pump the entire area to the Parrish Pump Station was analyzed but not favored because it would require improvements to increase the capacity of the Parrish Pump Station as well as the associated pressure mains.

Collection Improvements

Proposed sanitary sewer system improvements are shown in Figure 13 and are described in greater detail in Appendix D. Due to the existing municipal system and topography of the future serviced area, the conveyance options for the discharge of basins E6, E7 and X1, as outlined in the Sewer Master Plan are quite limited. Basin E6 is pumped north to Beutel Road where it discharges to a proposed gravity line, then flows southeast to the proposed pump station at the intersection of South End Road and South Parrish Road. Discharge from Basin E7 utilizes two pump stations located west of South Kelland Court and approximately 1,300 feet south of the intersection of South End Road and South Kelland Court. Both pumps within basin E7 utilize discharge to a proposed gravity line located along South End Road, where it intersects the UGB. The proposed gravity line flows northeast along South End Road to the proposed pump station at the intersection of South End Road and South Parrish Road. Future developments within Basin X1 could be routed to the proposed pump station at the intersection of South End Road and South Parrish Road, utilizing the proposed gravity lines along Beutel Road and South End Road. The proposed pump station at the intersection of South End Road and South Parrish Road pumps the discharge from basins E6, E7 and X1 through a proposed forcemain along South End Road northeast to the existing gravity line at the intersection of South End Road and South Glacier Court.

Routing basins E6, E7 and X1 to the existing Parrish Road Pump Station would require upsizing the existing gravity lines, constructing a parallel force main along the existing force main and would leave a spare capacity to serve only an additional 375 people. Additional service would require upsizing the pump station or routing discharge directly to the South End Road Interceptor. Basin E7 will be serviced by two pump stations, due to its topography. The proposed pump station at the intersection of South End Road and South Parrish Road will accommodate the peak flow of all three basins. Sizing of the proposed pump stations is based on the buildout peak flow for the average density for the UGB expansion area. Further flow monitoring is recommended to verify previous Inflow/Infiltration assumptions for basins E6, E7 and X1.

Recommend revising for clarification with similar language as shown on the following page 33.



The above are preliminary recommendations and it is recommended that the Sewer Master Plan be updated to analyze the South End Concept Plan Area. Locations of proposed pump stations and sewer lines are preliminary and can be relocated based on further studies and site specific information.

Recommend revising the Sanitary Sewer section on page 32, the Collection Improvements on page 32, and page 33 section with similar language as below for clarification:

Sanitary Sewer

Wastewater currently collected in the City's system within the South End Concept area either flows by gravity to South End Road or to Parrish Road pump station where it is pumped to a manhole in South End Road south of Glacier Street. It then flows by gravity northward to the Tri-City pipe network and finally to the wastewater treatment plant. Due to the topography in the Plan area for development to occur flows will need to be collected by gravity to new pump stations, then pumped to the existing discharge in South End Road. Three defined basins, E-6, E-7, and X-1, are defined and shown in figure 13, in the concept area and each will require pump stations for development.

Each pump station (A, A1, A2, A3) pumps discharge approximately 2000 feet, then it can continue by gravity to another pump station A near Beutel Road on South End Road. Pump station A will then pump the effluence approximately 5000 feet to the South End Road Interceptor located in South End Road south of Glacier Street.

An alternate to pump the entire area to the Parrish Pump Station was analyzed but not favored because it was higher in cost requiring temporary station pumping during the complete reconstruction of the existing station. This option would also require improvements to increase the capacity of the associated pressure mains of which the alignment would be through existing residential properties up to the South End Road interceptor and this disturbance was also a disadvantage to this option.

Collection Improvements

Proposed sanitary sewer system improvements are shown in Figure 13 and are described in greater detail in Appendix D. Due to the existing municipal system and topography of the future serviced area, the conveyance options for the discharge of basins E6, E7 and X1, as outlined in the 2003 Sewer Master Plan are limited. Flows from basin E6 will be pumped from station A1 north to Beutel Road where it then discharges to a proposed gravity line that continues southeast along Beutel Road to pump station A near the intersection of South End Road and Beutel Road. Discharge from Basin E7 is shown to utilize two pump stations, A2 and A3. Station A2 is located west of South Kelland Court near the southwest perimeter of the South End Concept area. Station A3 is located 1000 feet east of South May Road and 500 feet north of South Huntington Drive at the south edge of the concept area. Both of these pumps within basin E7 pump discharge approximately 2000 feet to a proposed gravity line located along South End Road. The proposed gravity line flows northeast along South End Road to proposed pump station A at the intersection of South End Road and South Beutel Road. Future developments within Basin X1 could be routed to the proposed pump station A at the intersection of South End Road and South Beutel Road, utilizing the proposed gravity lines along Beutel Road and South End Road.

The proposed pump station A at the intersection of South End Road and South Beutel Road pumps the discharge from basins E6, E7 and X1 through a 5000 feet proposed forcemain along South End Road northeast to the existing gravity line at the intersection of South End Road and South Glacier Court.

The above are preliminary recommendations and it is recommended that the 2003 Sewer Master Plan be updated to analyze the South End Concept Plan Area. Locations of proposed pump stations and sewer lines are preliminary and can be relocated based on further studies and site specific information.

Figure 11. Proposed Water System Improvements

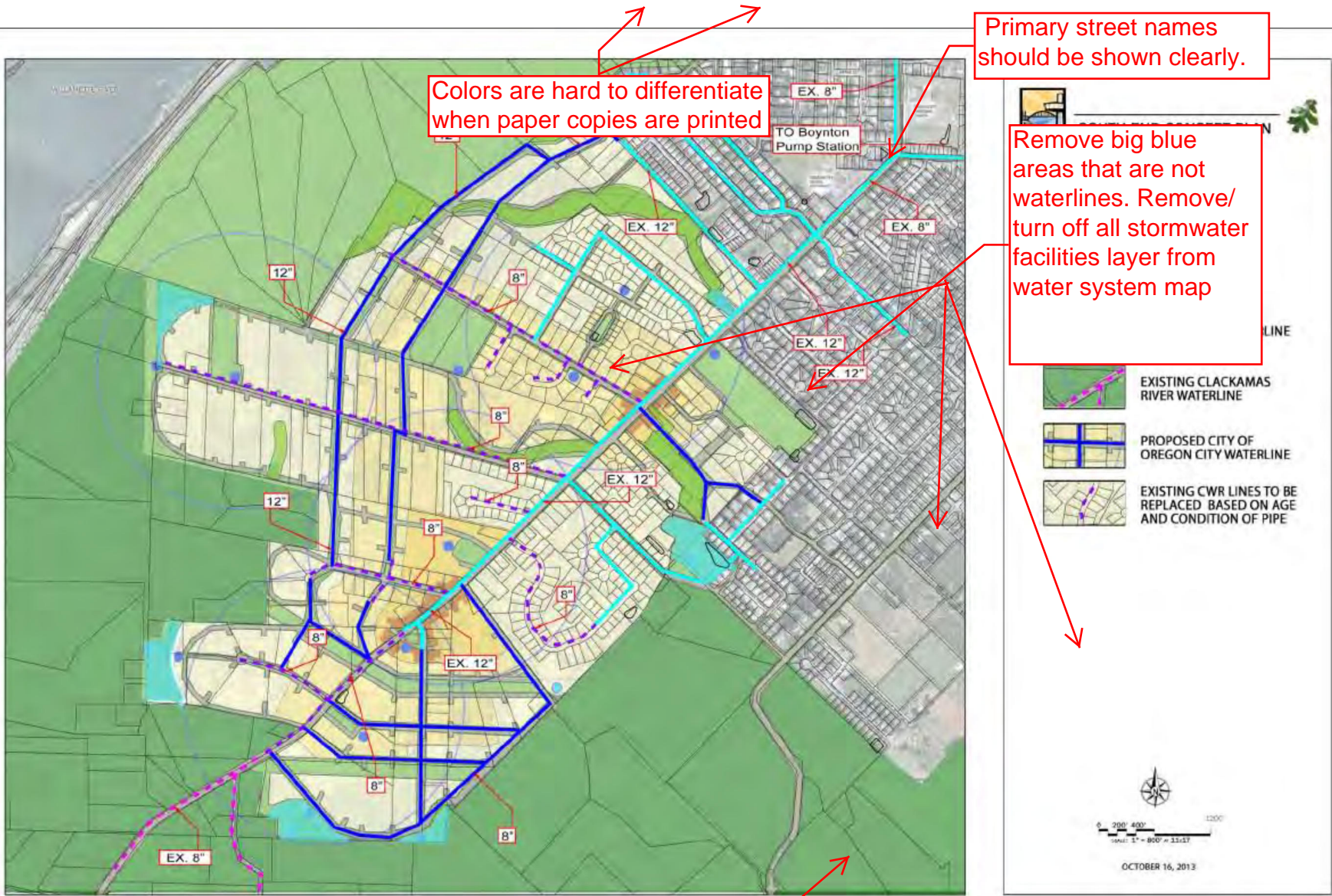
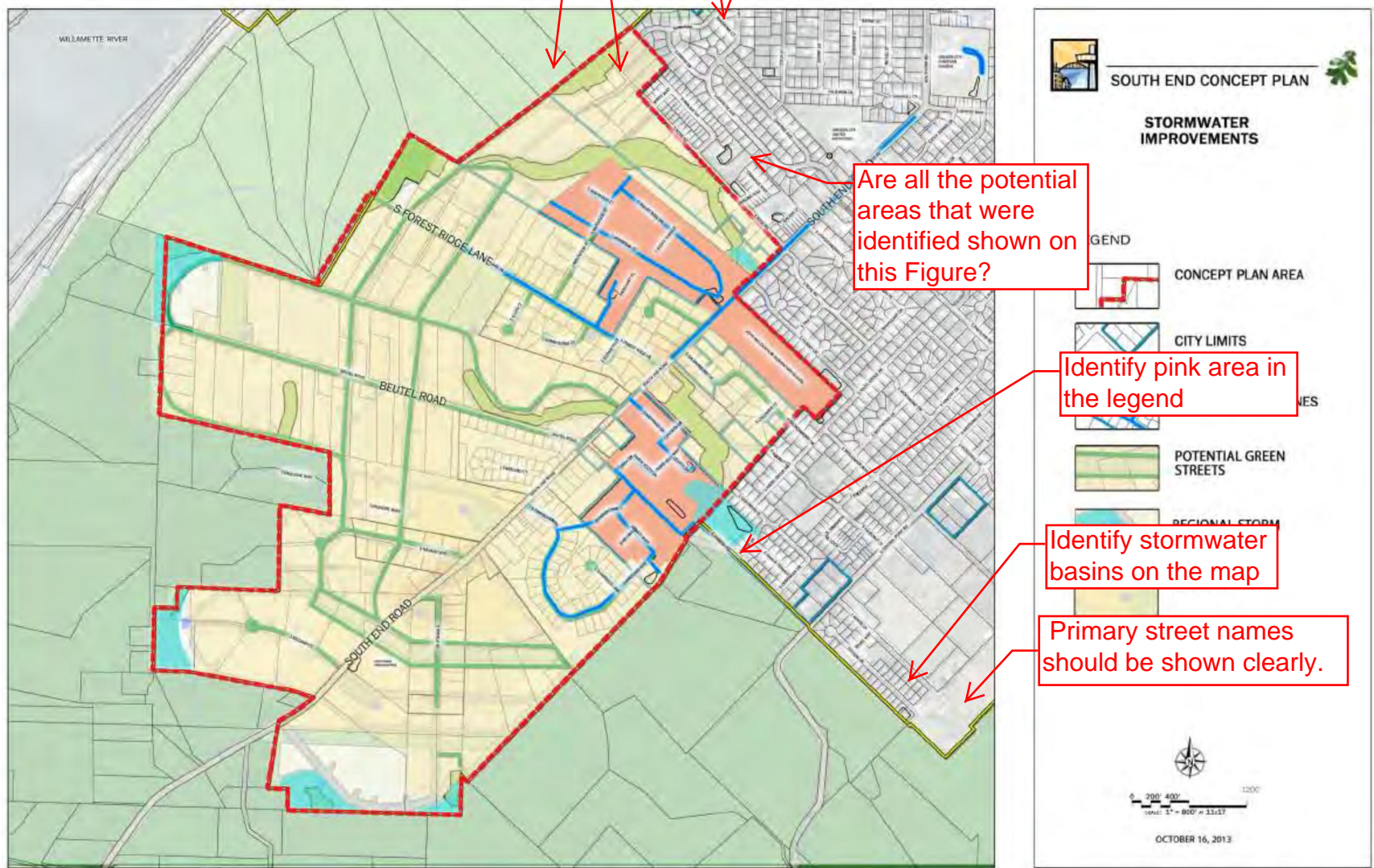


Figure 12. Proposed Stormwater Improvements



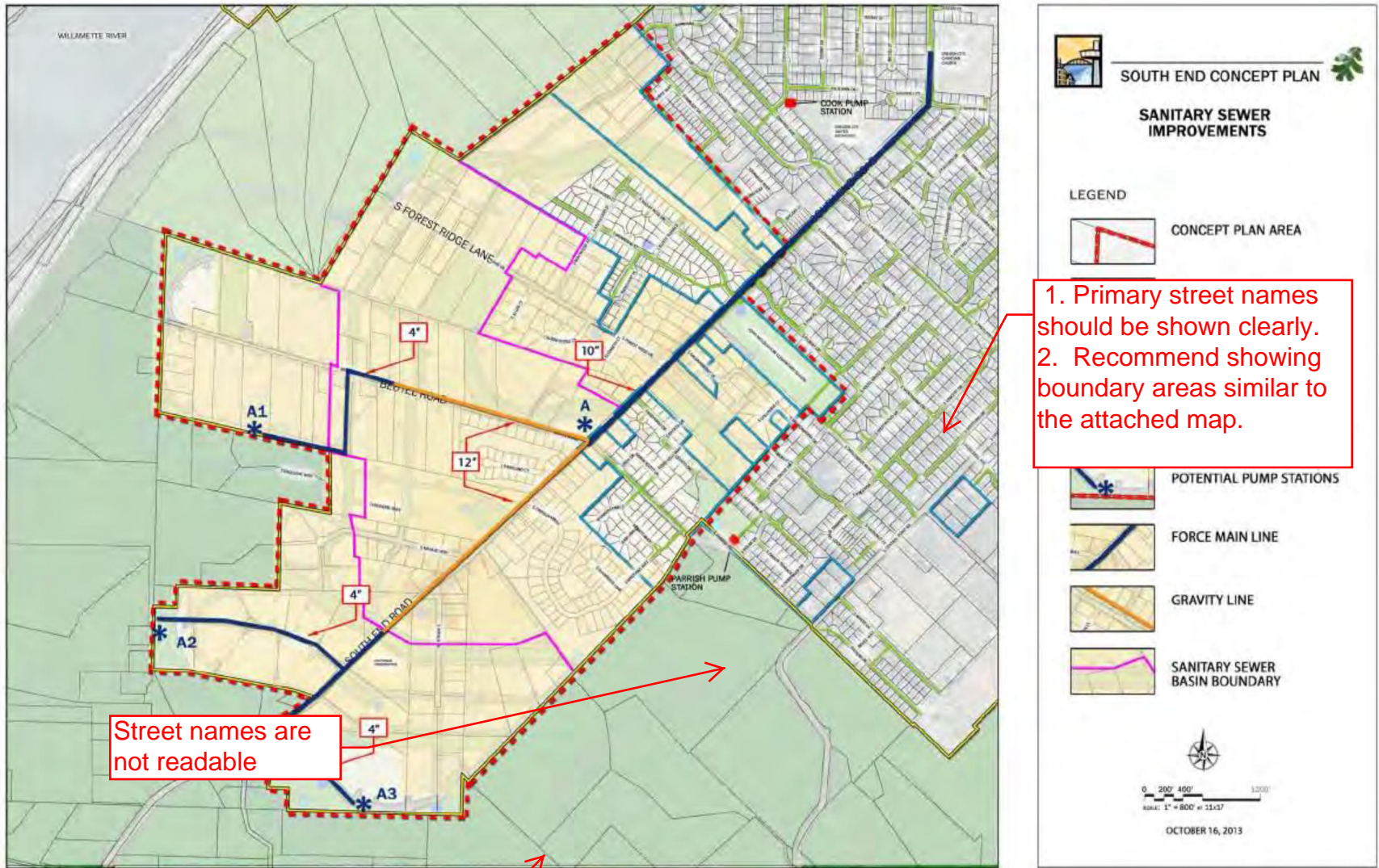
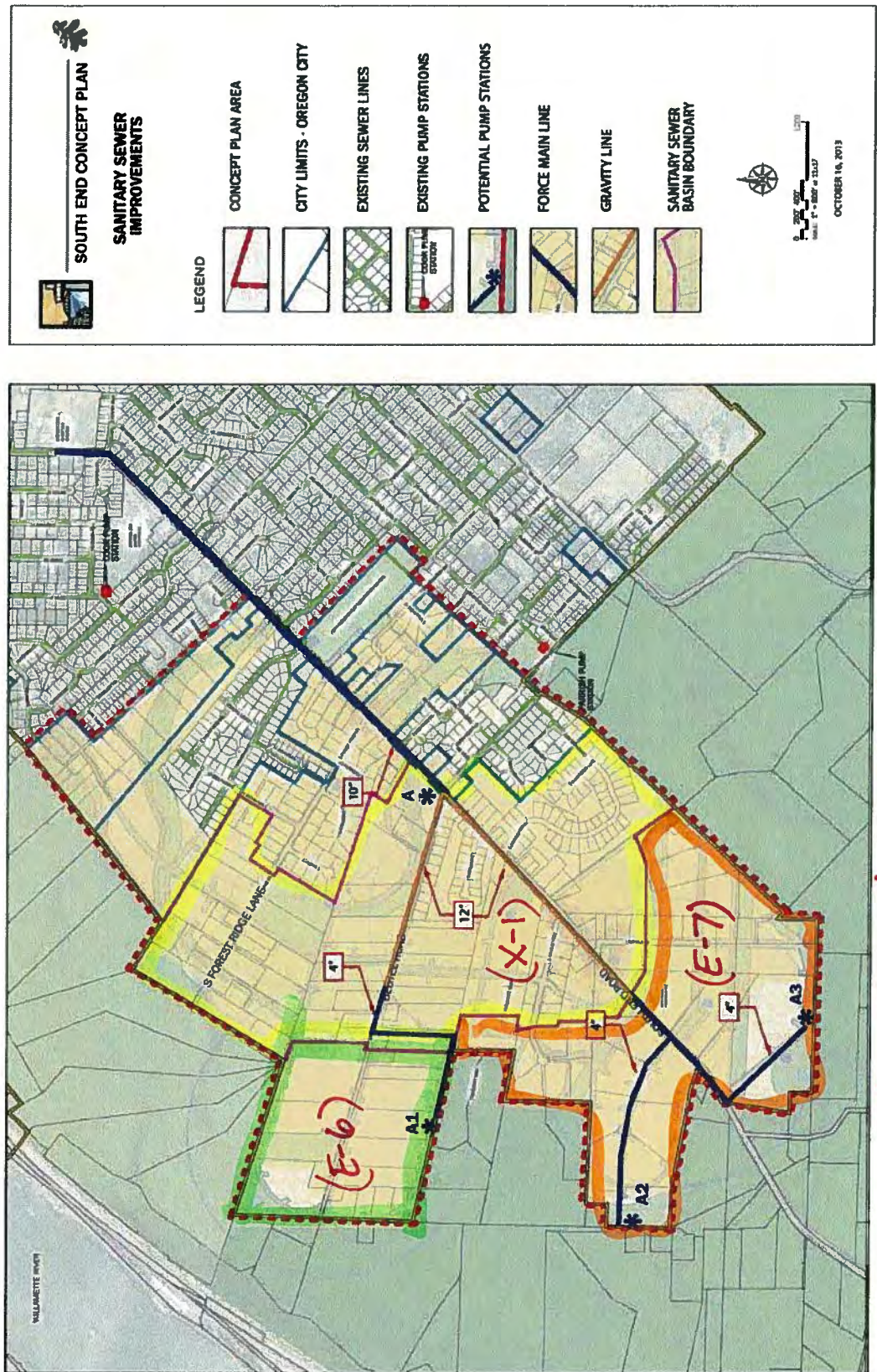


Figure 13. Proposed Sanitary Sewer Improvements

Figure 13. Proposed Sanitary Sewer Improvements



Recommend adding language to Policies section as indicated.

Add Policies:
Ensure the City provides all public services within the concept area.
Construct gravity sanitary sewer collection systems to the maximum extent practicable.

Manage public
We need some small community play grounds or green spaces to keep nature in our lives.

Public facilities

Goal

Public water, wastewater and stormwater services meet the needs of current and future residents, businesses and institutions.

Policies

- Construct new water and sewer infrastructure with roads to meet community needs.
- Treat stormwater with retention ponds and swales along natural features at edges of plan area.

Implementation Strategies

- Develop and implement Low Impact Design (LID) standards in South End.
- Re-evaluate Maximum Daily Demand (MDD) for water and available fire flow to account for the zoning densities shown on the current concept plan.

Parks and Trails

Goal

Parks, plazas and trails are developed and connected.

Policies

- Provide a network of new parks, open spaces and gathering places, including a facility sufficient for ball fields and other recreational opportunities.
- Incorporate trail connections to parks, neighborhood amenities and the regional trails system.
- Use utility corridors for new trail opportunities.
- Incorporate civic uses in various parks and public spaces.

Implementation Strategies

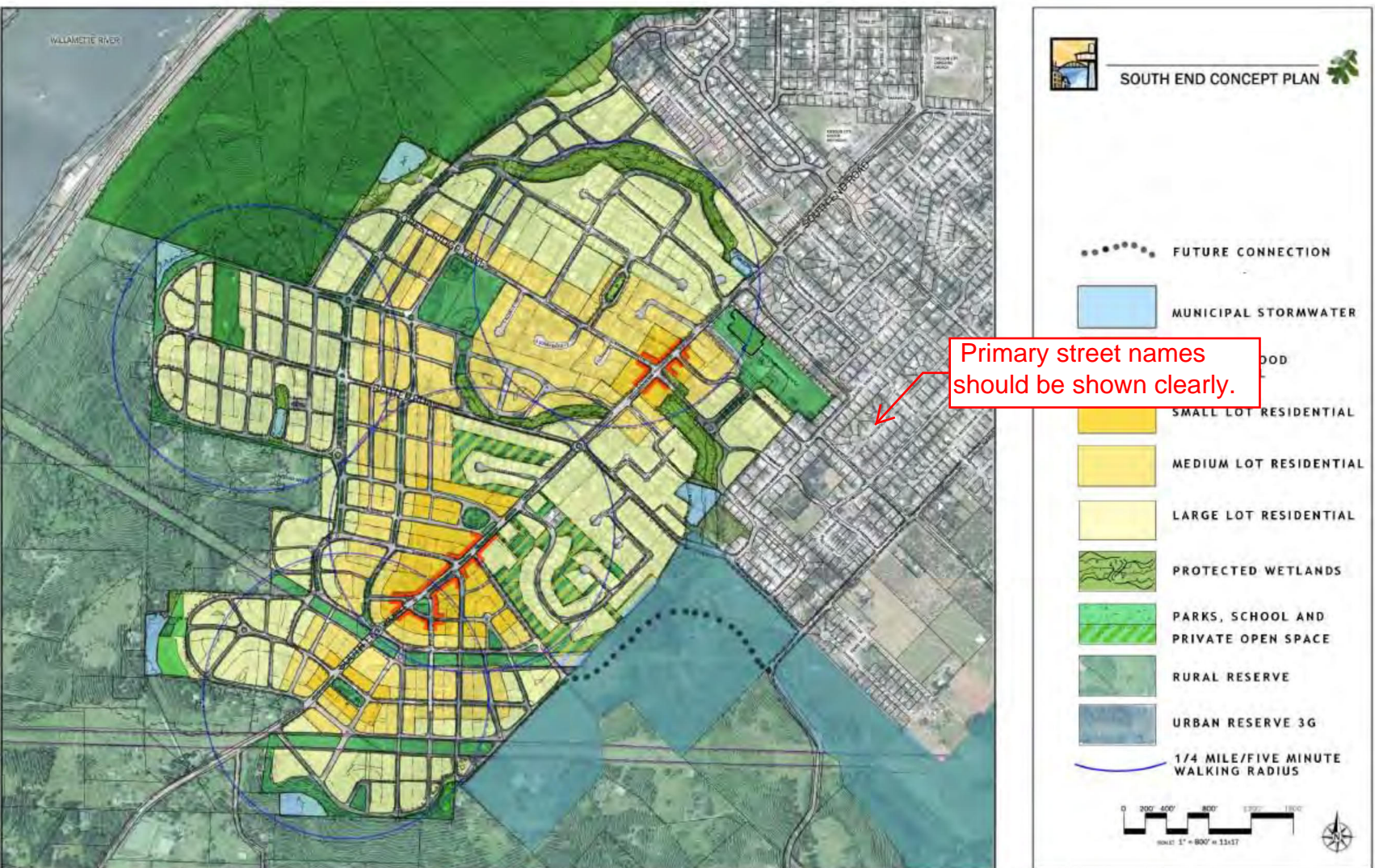
- Update City the Oregon City Park and Recreation Master Plan to include all South End Concept Plan parks so that their costs are adequately factored into the Capital Improvement Program and System Development Charge charges.
- Require subdivision applicants to review the South End Concept Plan and identify the location of future parks, open spaces and trails on their preliminary plat.

Planning and Development Process

Once this Concept Plan is adopted, the development process can begin. The actual process of development is driven by willing property owners and sellers. Oregon City annexations are subject to a vote of approval by city residents following approval by the City Commission pursuant to the City Charter. This process includes multiple elements: an application for annexation, annexation vote by the voters of Oregon City, application of an Oregon City zoning designation and the development review process (land division and site planning). Each element is a separate process subject to review and approval with the opportunity for public comment through at the Planning Commission and City Commission.



Figure 15. Proposed Implementation Map



The locations of the features shown on this map, including future land use, roads, and open space areas are for concept planning purposes. The final location of these features will be determined when a site-specific development plan is proposed following annexation initiated by property owners. Existing lawfully established land uses and structures within the USB are regulated by Clatsop County, and are permitted to remain until such time as the property owner decides to annex to Oregon City and develop their property subject to Oregon City zoning and development regulations.

FUNDING AND FINANCE

This section addresses funding considerations for the Concept Plan including identification of major infrastructure capital improvement costs and funding options. Potential implementation action strategies are also identified.

Provision of Urban Services

The South End Concept Plan will serve as a framework for delivering urban services and public facilities and guiding private development. Developers will generally be responsible for dedicating required public facility right-of-way easements and providing local streets and utility connections to trunk line systems. Hence, this funding strategy focuses primarily on collector and arterial roadway improvements, and water and sewer trunk lines, and storm water collection systems, and parks/trails, which will require significant levels of public investment.

A combination of existing and potential new funding sources will be required to ensure that the South End area is developed over time in a manner that is fiscally sustainable and consistent with the objectives set forth in the Concept Plan. The primary service providers that are identified for the South End Concept Plan area are listed in Table 4. The Existing Conditions report, located in Appendix A of the Concept Plan, includes a more detailed discussion of each service provider.

Table 4. Primary Service Providers

Public Facility/Service	Primary Service Providers After Annexation
Annexation & General Government Administration	Oregon City, with voter-approval
Land Use	Oregon City
Transportation	Oregon City, Clackamas County, ODOT, TriMet
Stormwater and Natural Resources	Oregon City
Water	Oregon City and Clackamas River Water ¹
Sanitary Sewer	Oregon City, Tri-City Service District
Schools	Oregon City School District
Energy/Power	Portland General Electric
Police Services	Oregon City
Fire and Emergency Services	Clackamas County Fire District #1

Need commas between words

need a footnote, see below footnote 1

Oregon City is the Primary Service Provider.

1

Water within the concept area is to be provided by Oregon City. Provision of water service during interim development periods may continue to be provided by CRW until properties are withdrawn from CRW service areas and the City is able to serve customers.

Total capital costs for major roads, sewer, water, stormwater and parks/trails systems have been estimated for build-out of the South End area and are summarized in this section. A more detailed description of these costs is provided in Appendices C, F and G. Unit costs were prepared based on local and regional experience with a variety of capital projects. The preliminary capital cost estimates do not include extraordinary cost for right-of-way acquisition, permitting or geotechnical soils work. Such extraordinary costs may include special environmental mitigation, subsurface soil enhancements, structural engineering systems, and business/residential relocation assistance.

See page Figure 16, page 41 section.

Utility rates and road fund are typically used for operations, maintenance, and replacement of existing system and not used for future development infrastructure

This title is confusing - "Primary Funding Area", is there a better title to describe this column?

Should this be Table 4 of Appendix C, DKS Memo Oct 17, 2013?

In addition to water and sewer trunk line improvements, the Concept Plan envisions the South End area to be developed with new public parks/trails and storm water improvements needed to serve planned development in the area. The transportation elements assume "Family Friendly Collector" design standards for a segment of Madrona Drive and "Mixed Use Minor Arterial" design standards for segments of South End Road, along with several pedestrian-oriented intersections. As defined in the City's Transportation System Plan, Family Friendly Collector streets consist of multiple travel lanes with landscaped buffer strips, on-street parking, and wide paths for bicycles and pedestrians.

The total estimated capital cost for the major public facility improvements needed in the South End Area is shown in Table 5. While these costs are stated in 2013 dollars, the improvements are expected to be phased over 20-30 years, depending upon market conditions for development and the availability of funds.

Footnote 5 should be in same font/format that the footnote number 5 is shown

Table 5. Capital Infrastructure Costs for South End Concept Plan Area

Public Facility System	Capital Cost	Primary Funding Area	Likely Funding Sources ⁵
Transportation (collectors, arterials, traffic signals)¹	\$20,235,000		
South End Road Improvements	\$ 3,870,000	City/County	SDCs, Grants, LIDs, Street Utility rates , Developer Financing, Road Fund
Other Collectors & Arterials	\$16,365,000	South End	
Parks & Trails²	\$19,334,190		
Shared-Use Paths	\$6,045,375	South End	SDCs, Grants, General Fund, Local Parks Utility Rates , Developer Dedications, Public/Private Partnerships, Voter-approved GO Bond
Family-Friendly Street Pathways	\$2,193,815	South End	
Community Park with Community Center	\$7,500,000	City/South End	
Village Center Park	\$1,450,000	South End	
Neighborhood Park	\$765,000	South End	
PGE/BPA Corridor Greenway Trail	\$1,380,000	City/South End	Agency partnerships
Water (mainline system)³	\$5,156,600	South End	SDCs, Connection Charges, Utility rates , Developers
Sanitary Sewer (trunk system)³	\$4,056,800		SDCs, Connection Charges, Utility rates , Developers
Stormwater System³	\$21,164,950		
Stormwater collection	\$ 3,126,000	South End	SDCs, Connection Charges, Utility rates , Developers
Green streets	\$11,343,950	South End	Regional Mitigation Bank
Regional Ponds	\$ 6,695,000	City/ Drainage Basin	?
Subtotal	\$ 69,947,540		
Other (planning/legal/admin.) ⁴	\$2,798,000	South End	General Fund, Planning fees, Grants
Total	\$72,745,540		

Add: LIDs, and Reimbursement Districts

¹ Derived from Table 3 of South End Concept Plan—Transportation Element Memorandum from DKS dated August 7, 2013.

² Based on preliminary conceptual cost estimates by Alta.

³ Based on preliminary cost estimates by 3J Consulting.

⁴ Preliminary estimate based on 4% of capital cost requirements.

⁵ These existing funding sources may be supplemented with new funding mechanisms, such as urban renewal districts or parks utility fees; to be determined during preparation of the Public Facility Plan for the South End Area.

utility fees are typically used for operations and maintenance

LID

Apperas too conservative?

Typically a Master Plan is developed for each utility system as a whole that includes an analysis of the utility system's needs for improvements for both the existing system and the future system to support development within all known concept areas. A separate facility plan (water, sanitary and storm) for a specific concept area is usually not prepared.

6 LID = Local Improvement District

It is important to note that certain major investments, such as improvements to South End Road, are major investments (e.g. \$3,870,000) that would likely require some level of investment over the next 20 years even if the South End Concept Plan area was not fully developed. Table 6 shows how a preliminary allocation of general funding responsibilities can be based upon the area of benefit.

Indicate whether these public facility costs have been accounted for in the City's currently adopted SDC calculation for each utility.

Table 6. Estimated Capital Costs by Area of Benefit

	South End Public Facilities (Low-end cost) ¹	Other City/County Facilities ²	Total Cost (High-end cost) ¹
Transportation	\$16,365,000	\$3,870,000	\$20,235,000
Parks & Trails	\$10,454,190	\$8,880,000	\$19,334,190
Water (mainline system)	\$5,156,600		\$5,156,600
Sanitary Sewer System	\$4,056,800		\$4,056,800
Stormwater System			
Stormwater Collection	\$3,126,000		\$3,126,000
Green Street Enhancements	\$11,343,950		\$11,343,950
Regional Ponds		\$6,695,000	\$6,695,000
Subtotal	\$50,502,540	\$19,445,000	\$69,947,540
Other (administration)	\$2,020,102	\$777,800	\$2,797,902
Total	\$52,522,642	\$20,222,800	\$72,745,442
Equivalent Residential Units (ERUs)	2,447		
Cost Per ERU	\$21,464 ³		

¹ Costs specifically attributable to the South End Concept Plan area only?

² Costs considered as a City-wide benefit and City-wide SDC qualifying?

Funding Strategies: Existing and Potential Sources

³ This figure would be in addition to any currently adopted SDC?

South End Area is expected to be developed incrementally over time with a mix of public and private funding and financing sources.

Existing Funding Sources

It will be important for the City to utilize full capital-cost and operating-cost recovery methods to avoid unsustainable fiscal impacts to the City's General Fund. Hence, existing funding sources, including local System Development Charges (SDCs), utility fees, and connection charges and rates (and capital improvement programs) need to be updated prior to annexation and development.

NOTE: Existing utility fees and rates are expended for operations, maintenance and replacement of existing facilities. Fees and rates do not pay for capital capacity improvements needed to support future development.

The existing local SDCs that currently apply to the South End area (after annexation) would generate significant amounts of funding that would be used to pay for adequate public facilities over time. The level of funding generated by SDCs (upon build-out of the South End Concept Plan area) is summarized in Table 7.

Existing SDCs are not dedicated to South End Concept area capital improvements and may be expended on other priority City-wide capital improvements that are SDC fund eligible and not located in the SECP area. The narrative and funding sections should include this consideration.

NOTE: Comments and recommendations have been made to Appendix G cost estimates.

Table 7. Schedule of SDC Charges and Revenues before Credits, Oregon City South End

	SDC per ERU	Gross Revenue (before credits)
Transportation	\$7,833.90	\$19,169,561
Vehicles	\$7,616	\$18,635,766
Bicycles and pedestrians	\$218	\$533,795
Sanitary sewer	\$3,864	\$9,456,139
Oregon City	\$1,844	\$4,513,199
Tri-City Sanitary District	\$2,020	\$4,942,940
Stormwater	\$701	\$1,714,429
Oregon City Charge on New Development	\$701	
Water	\$4,840	\$11,843,292
Oregon City	\$3,374	\$8,256,634
South Fork Water Board	\$1,466	\$3,586,658
Parks	\$3,543	\$8,669,154
Oregon City	\$3,543	\$8,669,154
Total SDC and Agency Summary	\$20,782	\$50,852,575
Oregon City	\$17,296	\$42,322,977
South Fork Water Board	\$1,466	\$3,586,658
Tri-City Sanitary District	\$2,020	\$4,942,940

Source: derived from Oregon City SDC calculator; analysis by FCS GROUP, based on 2,447 equivalent residential units added in the South End area.

To illustrate the level of potential funding “gaps” for major infrastructure improvements in the South End area, an analysis comparing the required level of capital investment to the potential amount of SDC revenues collected assuming the existing regime of SDCs per unit of development, and a range in capital costs from low (reflects improvements that primarily serve the South End area) to high (reflects total capital costs) is summarized in Table 8 and based on the mid-point level of development that is anticipated to occur over the next 20 years, which assumes 2,447 ERUs.²

The results of the status quo funding analysis generally indicates that the City may need to consider additional funding sources to help cover the capital costs of transportation, parks and trails, and stormwater systems that are required to accommodate new development in the South End area. The facilities with the greatest funding challenge include:

- Transportation: funding gap of \$1.87 million
- Parks and Trails: funding gap of \$2.2 to \$11.4 million
- Stormwater System: funding gap of \$13.3 to \$20.3 million

While the analysis indicates that the SDCs for water and sanitary sewer should be adequate to cover capital costs, the issue of advance financing required system up-sizing and new sewer lift stations will likely require some form of developer or city financing. Advance financing options are discussed in the following pages.

² The ERU estimates are based the midpoint of a range in development, including: 1,747 to 2,637 single family dwellings and 170,000 to 340,000 commercial/office floor area, with 1 job per 500 square feet, and 1 ERU per 2 employees.

Currently SDCs are collected and expended on City-wide SDC eligible capital improvements. The SDC cost analysis and potential funding narrative appears to assume the SDCs generated from the 2,447 ERUs will be dedicated to the South End area capital improvements which may not be the case if the SDCs are expended for other City-wide projects that are SDC fund eligible. Narrative should include consideration of this.



Based on SDCs being used on City-wide SDC eligible capital improvement projects, this funding gap may be larger for all utilities. Narrative should include consideration of this and the need for future SDC studies to assess the future CIP, phasing and finance plans to include the SECP capital improvements.

Based on SDCs may be expended on other City-wide SDC fund eligible capital improvement projects, the potential SDC revenue may be much less at build-out. This should be considered in the narrative and possibly a foot notes should address this consideration and the need of future SDC studies.

Table 8. Potential Capital Funding Requirements, Oregon City South End

	Capital Cost ¹		Potential SDC Revenue at Build-out	Potential Net Revenue/(Gap) before SDC Credits		Funding Strategies
	Low-end Est.	High-end Est.		Low-end Est.	High-end Est.	
Transportation	\$17,019,600	\$21,044,400	\$19,169,561	\$2,149,961	(\$1,874,839)	New subarea SDC and/or LIDs and other sources may be required
Parks & Trails	\$10,872,358	\$20,107,558	\$8,669,154	(\$2,203,204)	(\$11,438,404)	New subarea SDC and/or parks utility fee and/or LIDs and other sources may be required
Water (mainline system)	\$5,362,864	\$5,362,864	\$8,256,634	\$2,893,770	\$2,893,770	Existing SDC appears adequate
Sanitary Sewer System	\$4,219,072	\$4,219,072	\$4,513,199	\$294,127	\$294,127	Existing SDC appears adequate
Stormwater System	\$15,048,748	\$22,011,548	\$1,714,429	(\$13,334,319)	(\$20,297,119)	New subarea SDC and/or stormwater utility fee and/or LIDs may be required
Total	\$52,522,642	\$72,745,442	\$42,322,977	(\$10,199,665)	(\$30,422,465)	

Utility rates are not designed to pay for new capital for future development. Typically rates are used for operations, maintenance, and replacement of existing facilities

A list of existing and potential funding sources and preliminary strategies to be considered as a means of meeting funding needs for the South End area is provided in Table 9.

Stormwater rates update is not in the process.

Table 9. Potential Funding Strategies for South End Concept Plan Area

Funding Source	Existing or Potential Funding Source	supplemental Oregon City South End Funding Strategies
SDCs for water, transportation, sewer, stormwater and parks	Existing SDCs should cover about 60% of capital cost	Consider updates to Oregon City SDC methodology reports; and/or consider South End subarea SDC charges.
Utility rates for transportation, water, sewer, stormwater	Rates should be adjusted to cover most water, sewer and stormwater facility needs.	Rate updates for stormwater now in process.
Parks utility rate	Potential	City could consider new city-wide funding source for parks O&M and capital improvements; to free up some general fund dollars for other uses.
General Fund (such as property tax revenues)	Existing	At build-out the South End area is estimated to generate over \$9.8M in annual property tax revenues (all districts) and \$2M in annual general funds to Oregon City through the state-shared tax contributions. ² The City could dedicate general funds to South End area by issuing bonds backed by current and anticipated General Fund revenues.
Developers (Right-of-Way easement dedications and Advance Financing Agreements)	Potential	Developers should be required to dedicate right-of-way for planned public facility easements, and may provide advance funding/financing for required infrastructure, such as sewer lift stations, with compensation via SDC credits, local improvement districts, or reimbursement districts.
TriMet	Existing	TriMet funding through payroll tax, firebox, and other revenues would support Route 33 bus transit service.

³ State shared tax assumptions are derived from the Oregon City Transportation System Plan, assuming \$389 per capita and 5,612 people added (mid-point of development forecast, 2,192 dwellings with 2.56 persons per dwelling).

This statement possibly under estimates the need of SDC's for City-wide capital improvements outside of the concept area.

Funding Source	Existing or Potential Funding Source	Oregon City South End Funding Strategies
Grants	Potential	ODOT STIP funds for transportation enhancements could match portion of improvements to South End Road, and Metro funds may be available for constructing regional trails.
Full Faith and Credit Bonds, Revenue Bonds	Potential	Oregon City and/or local service providers could consider issuing Full Faith & Credit Bonds or revenue bonds with specified sources of dedicated revenues to pay interest and principle amounts for certain utilities (such as sewer, sewer, stormwater).
General Obligation Bonds	Potential	Local voter-approved general obligation bonds secured by ad valorem property taxes could provide funding for specific capital facilities. Parks and trail improvements are often good candidates for new local GO bond issue.
Loans (financing)	Existing	Loans from <u>Oregon Special Public Works fund</u> could be used to advance finance construction of roads and other infrastructure.

Unknown what existing fund is being referenced?

Other Potential New Funding Sources

Additional funding sources can be considered as a means to enhance General Fund revenues or as a means to pay for public facilities in the South End area. While some of these additional funding sources require public voter approval, they can be considered as potential means to pay for expanded urban services into the South End area as shown in Table 10.

Table 10. Additional Potential New Funding Sources

Funding Source	Voter Approval Required?	Eligible Pubic Facilities
Local sales tax	No	All
Franchise fees	No	All
Transient lodging tax	No	Up to 30 percent maximum can be used for transportation facilities.
Transportation Management Association (TMA; new non-profit entity)	No	Transit operations (local loop route) would require dedicated source of funding within a TMA District (could include parking fees or employer charges).
County Service District, Funding via property tax	Yes	All, per district formation per ORS 198. Requires city/county joint adoption and agreements.
Urban Renewal District	Yes ³	All, per Urban Renewal Plan if adopted per ORS 457 and per County Measure 3-386. <u>Footnote 4?</u>
Local fuel tax	Yes	Transportation

Development Phasing

The South End Concept Plan area includes between 2,192 and 2,637 new dwelling units by year 2035. In addition, the South End area may also include a neighborhood commercial/office/mixed-use development of between 170,000 and 340,000 square feet of floor area.

⁴ Measure 3-386 was approved by Clackamas County voters in November 2011 and requires countywide voter approval to create or make a "substantial change" to urban renewal districts. The measure applies only to districts in unincorporated portions of the county, not within cities.

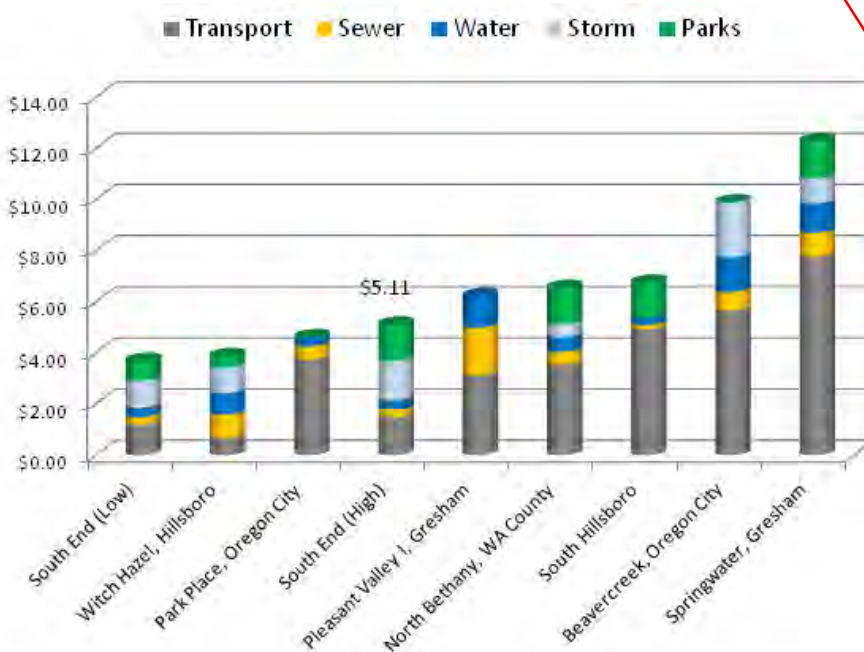
The market analysis conducted as part of the Existing Conditions report expects short- and mid-term demand (years 1-15) to be focused on housing, which would be provided incrementally in accordance with the City's annexation policy.

The cost of public facilities within the South End area ranges from \$3.69 to \$5.11 per gross buildable square foot of land area. The expected public facility cost per square foot of buildable land area in the South End compares favorably with other urbanizing areas within the greater Portland Region, as indicated in Figure 14. This cost comparison takes into account other adopted cost plans, with costs converted to 2013 dollars. Given the ongoing private housing development underway in other urbanizing areas (including North Bethany and Pleasant Valley) which have higher public facility costs than South End Concept Plan area, it is likely that the public facilities that are planned within the South End area can be reasonably funded in a manner that results in an adequate development return on investment.



Major capital improvements required to serve the South End area will be constructed incrementally over time based on market conditions and permitted annexations. The City should require planned public facilities to be "reasonably funded" prior to allowing new development to occur. This entails updates to the City's Capital Improvement Program, with specific projects identified along with anticipated funding sources, as a condition of development within new annexation areas.

Figure 16. Comparative Public Facility Cost per Sq.Ft. of Buildable Land Area



Is Figure 16 showing comparable public facility costs using the same assumptions regarding the "extraordinary" costs listed in the highlighted section on Page 45?

Source: compiled by FCS GROUP based on adopted concept plans, 2013 dollars.

Near-term Implementation Actions

Implementation of the South End Concept Plan area will require proactive work by Oregon City staff and leadership. Key steps to be undertaken over the next four years include:

- Adopt the South End Concept Plan.
- Prepare and adopt recommended local ordinance amendments.
- Document potential fiscal impacts to the city, county and service districts, including potential tax and fee revenues and service costs that are associated with South End annexation.
- Perform value engineering to scale down costs for green streets, parks and stormwater improvements.
- Consider public-private partnerships for providing community park facilities; and work with local citizens, property owners and service providers to further evaluate and adopt new funding sources that have been identified in this plan document.
- Prepare a detailed **Public Facility Plan** that refines project capital cost estimates, and identifies short-term public facilities and their funding sources.
- Revisit inter-local urban service agreements with Clackamas County and utility service providers to ensure that the roles and responsibilities for advance financing required public infrastructure and providing adequate operations and maintenance service levels are clarified.

Typically a Master Plan is developed for each utility system as a whole that includes an analysis of the utility system's needs for capital improvements for both the existing system and the future system to support development within all known concept areas. A separate facility plan (water, sanitary and storm) for a specific concept area is usually not prepared. The Utility System Master Plan refers to the Concept Plan and typically further refines and identifies the capital improvement projects, costs, short term and long term schedule, and potential funding sources for the Concept Plan Area improvements that have been adopted.

Chapter 4: Public Infrastructure and Services

This chapter describes the existing services for stormwater, water, sanitary sewer, energy, police services, fire and emergency services, and school facilities.

Stormwater

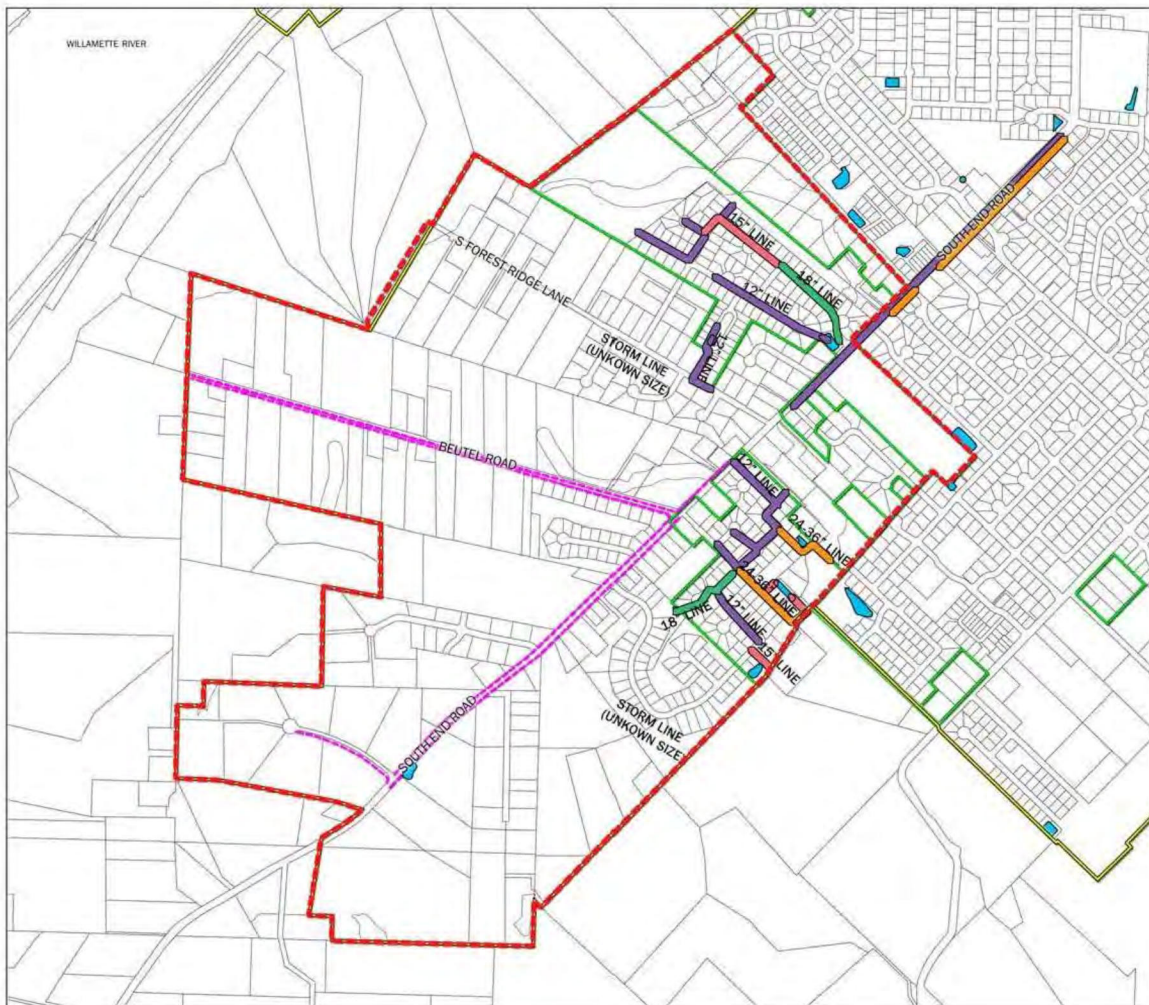
The planning area falls within the Amanda Court, Allen Court, and South End drainage basin areas as shown in the City of Oregon City Drainage Master Plan (January 1988). These basins are part of tributaries that drain to the Beaver Creek. Figure 4.2 illustrates the different drainage catchments located within the study area.

Stormwater within the study area is currently being managed by a combination of roadside ditches, natural drainage channels, and underground storm conveyance systems. These systems are shown in Figure 4.1. Additionally, there are a handful of existing detention ponds within the City's boundaries that service existing subdivisions and a privately owned detention pond located along the southeast side of South End Road and S Kelland Court.

Storm systems within the current City boundary generally consist of catch basins draining to underground conveyance systems. Pipe systems generally range in size from between 10 inches and 36 inches. Outside the City limits, stormwater is typically handled through roadside ditches with some areas draining to catch basins.

The City Engineering Division has indicated that they are currently working to create and adopt a new series of Low Impact Design Standards as part of a Stormwater and Grading Design Manual Update. Areas currently outside the City limits have the greatest potential to redevelop and implement new low impact design (LID) standards. Providing LID standards to new/redeveloped properties will limit the impact to existing aging storm systems and reduce the infrastructure required to services these areas.

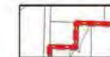
There are great opportunities to provide regional and sub-regional stormwater management areas. Considering and planning for storm on a catchment wide basis would help to reduce the number of small or privately owned and operated storm systems. With careful planning, regional stormwater management areas can be incorporated to drain treated stormwater into adjacent natural resource areas. The City of Oregon City currently utilizes one regional detention area in the South End Basin Master Plan, adopted June 1997. This regional detention basin is located south of Salmonberry Drive and southeast of Parrish Road extending outside of the study area. It may be possible to expand this facility in anticipation of additional development within the planning area.



SOUTH END CONCEPT PLAN

EXISTING STORMWATER INFRASTRUCTURE

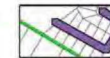
LEGEND



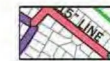
CONCEPT PLAN AREA



CITY LIMITS - OREGON CITY



EXISTING STORM LINES
12 INCH



EXISTING STORM LINES
15 INCH



EXISTING STORM LINE
18 INCH



EXISTING STORM LINES
24-36 INCH



ROADSIDE DITCHES

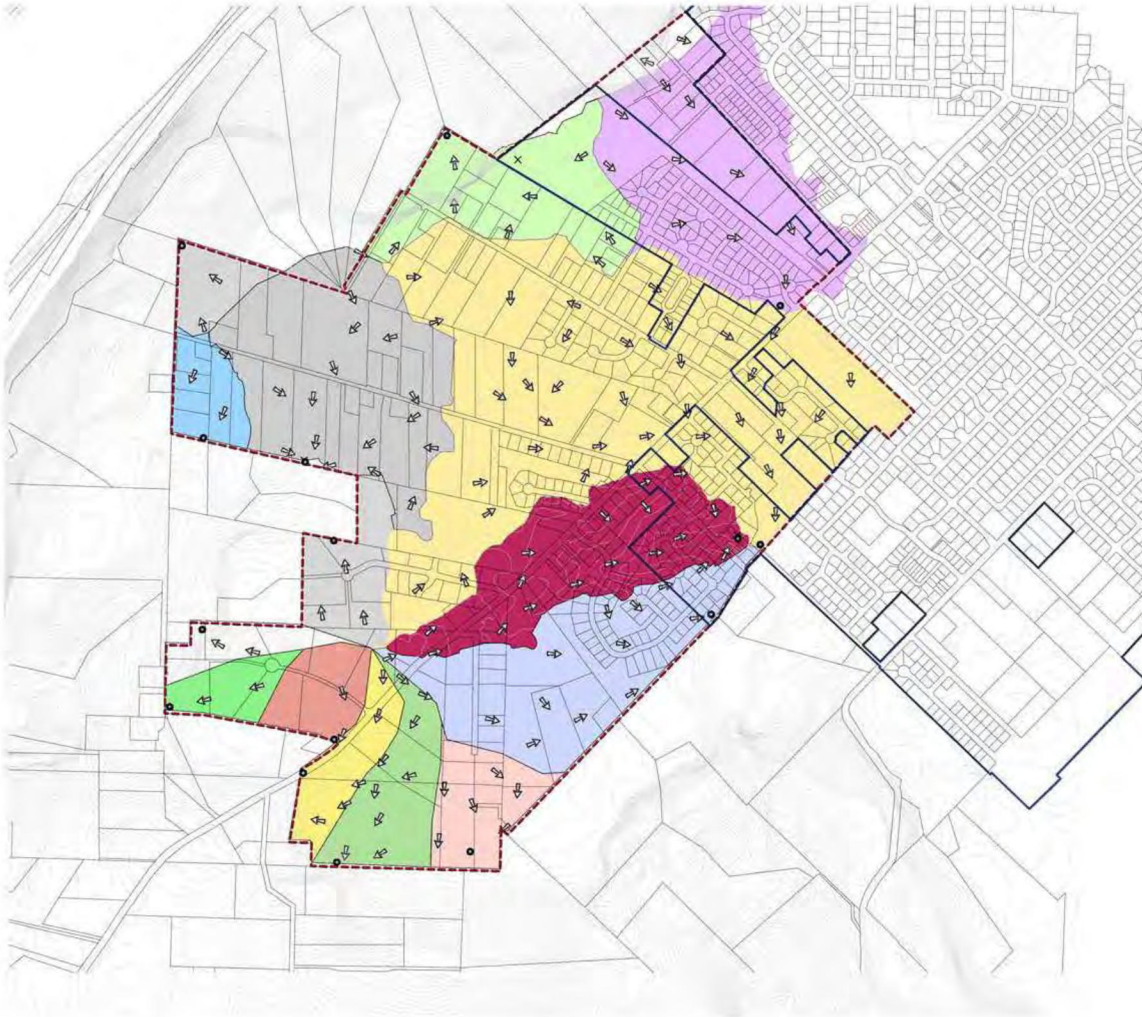


EXISTING STORMWATER
PONDS



0 200' 400' 600'
SCALE: 1" = 800' @ 13.127

OCTOBER 16, 2013



SOUTH END CONCEPT PLAN



STORMWATER CATCHMENT ANALYSIS PLAN

LEGEND



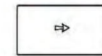
CONCEPT PLAN AREA



CITY LIMITS



STORMWATER CATCHMENTS



DIRECTIONAL ARROWS
(WATER FLOW)



0 200' 400' 1200'
SCALE: 1" = 400'

OCTOBER 16, 2013

Water

The Boynton pump station and reservoir provides water to residents within the planning area and areas adjacent, as described in the City of Oregon City Water Distribution System Master Plan, (January 2012). Water services within the planning area are served by both the City of Oregon City and Clackamas River Water (CRW). Transmission mains within South End Road are owned by the City of Oregon City and Clackamas River Water. There is a master service meter located just southwest of S. Impala Lane and South End Road intersection, which delineates the two service districts. This master meter delineates the mainline interconnect with the City of Oregon City and CRW. The City has a joint access agreement with CRW for special situations for areas outside of the City limits. Under this agreement, CRW can provide customer services directly from Oregon City pipelines that are upstream of their master meter. A majority of the study area is serviced by CRW under this agreement as these areas are intermixed with unincorporated and incorporated properties. Water services within the City boundary is provided by the City of Oregon City and pipe mainline sizes are between 4-inch to 12-inch. Areas outside of the City limits are serviced by Clackamas River Water District (CRW), as shown in Figure 4.3.

Water section needs to be updated per the executive summary narrative in the SECP

As shown in the City's 2012 Water Master Plan, the South End Concept Plan area is served by Boynton and Henrici Reservoirs and the Mountainview Pump Station.



SOUTH END CONCEPT PLAN



EXISTING WATER INFRASTRUCTURE

LEGEND



CONCEPT PLAN AREA



CITY LIMITS



EXISTING WATER LINES



CLACKAMAS RIVER WATER SERVICE AREA BOUNDARY



0 200' 400' 1200'
SCALE: 1" = 400'

OCTOBER 16, 2013

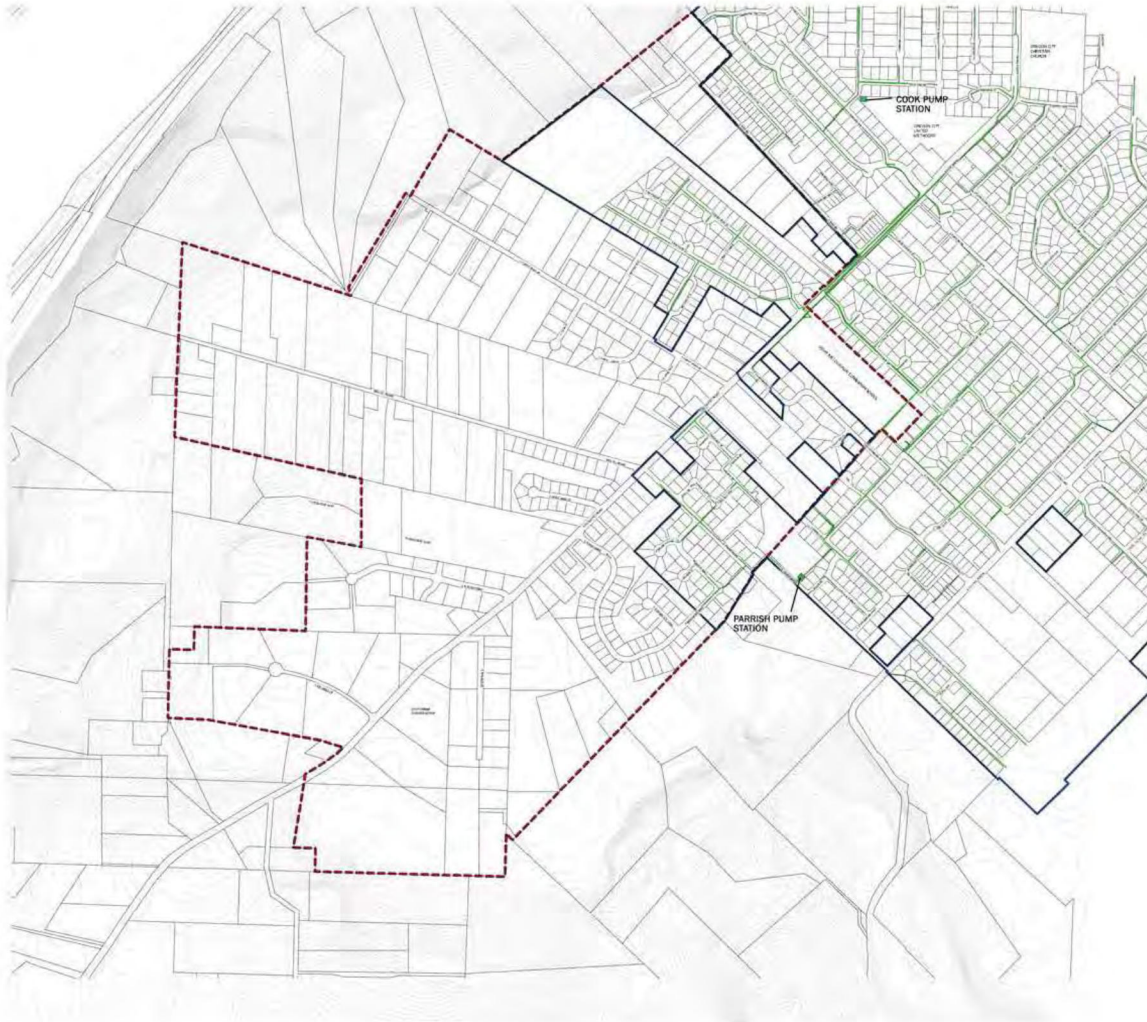
Sanitary Sewer

The only areas serviced by City wastewater collection are the lands located within the City limits in the Northeast and East sections of the planning area as shown in Figure 4.4. Areas within the City limits are serviced by gravity sewer mains ranging from 8-inch to 12-inch pipes. The planning area falls within the Parish Road, X1, E6, and E7 sub-drainage basins, and are a part of the South End Road drainage basin as shown in the City of Oregon City Sanitary Sewer Master Plan (December 2003). Areas within the Plan area that are inside City limits convey flows to the Parish Pump Station (11525 Parish Dr.). From there, sewage is conveyed through a 10-inch force main, to a manhole in front of Oregon City Church (1179 South End Road), which provides gravity flow eventually to the wastewater treatment plant. There are four existing houses, within City limits that are located at 11501, 11502, 11520, and 11521 Salmonberry Drive that are on private Septic Tank Effluent Pumping (STEP) systems. These STEP systems are maintained by the City of Oregon City, electricity is covered by the individual homeowner, and is pumped to the City sewer system within South End Road. The majority of the homes that are located within the planning area and outside city limits are currently on septic systems. The City Sanitary Sewer Master Plan indicates that the areas within the Plan boundary will drain to the South End Basin.

Recommend revising the Sanitary Sewer section for clarification similar to below:

Sanitary Sewer

The only areas serviced by City wastewater collection are the lands located within the City limits in the Northeast and East sections of the planning area as shown in Figure 4.4. Areas within the City limits are serviced by gravity sewer mains ranging from 8-inch to 12-inch pipes. The planning area falls within the Parish Road, X-1, E-6, and E-7 sub-drainage basins, and are a part of the South End Road drainage basin as shown in the City of Oregon City Sanitary Sewer Master Plan (December 2003). Areas within the Plan area that are inside City limits convey flows to the Parrish Pump Station (11525 Parrish Road.). From there, sewage is conveyed through a 10-inch force main, to a manhole in front of Oregon City Church (1179 South End Road), which provides gravity flow eventually to the wastewater treatment plant. There are four existing houses, within City limits that are located at 11501, 11502, 11520, and 11521 Salmonberry Drive that are on private Septic Tank Effluent Pumping (STEP) systems. These STEP systems are maintained by the City of Oregon City, electricity is covered by the individual homeowner, and is pumped to the City sewer system within South End Road. The majority of the homes that are located within the planning area and outside city limits are currently on septic systems. The 2003 City Sanitary Sewer Master Plan indicates that the areas within the Plan boundary will drain to the South End Basin.



SOUTH END CONCEPT PLAN



EXISTING SANITARY SEWER INFRASTRUCTURE

LEGEND



CONCEPT PLAN AREA



CITY LIMITS



EXISTING SEWER LINES



EXISTING PUMP STATIONS



0 200' 400' 1200'
SCALE: 1" = 400'

OCTOBER 16, 2013

Public Infrastructure Element**Water**

The existing Oregon City water system is expanded to serve the entire South End Concept Plan area. Based on the 2002 UGB, stated and delineated within the *2012 City of Oregon City Water Distribution System Master Plan*, all existing and proposed water mains, lines and services are incorporated under the ownership of Oregon City. Ownership of the Clackamas River Water (CRW) system will eventually be incorporated into the City of Oregon City's water distribution system. CRW facilities may not be designed to handle urban levels of development and will need to be improved, expanded or replaced to continue to provide water service to corresponding customer areas. Further analysis of the existing CRW water system is recommended to determine need for replacement. The *Master Plan* forecasted sufficient water supply to accommodate build out in the South End Zone. However, the South End Concept Plan proposes development beyond what is shown in the Master Plan. Maximum Daily Demand (MDD), available pressure and available fire flow should be re-evaluated to account for the zoning densities shown on the current concept plan. As the annexation process occurs, the City will notify and work with CRW and its customers to assure transfer to the city water system transpires in a methodical way and rate payers are aware and informed of the process.

Distribution Improvements

The proposed water main system improvements are shown in Figure 1. Water main improvements consist of new water mains ranging from 8-inches to 12-inches, unless stated otherwise. Several connections are made to both the existing City of Oregon City water main and CRW main, located along South End Road. The most significant extension is the connection to the existing 12-inch main, located northwest of South End Road at the intersection of South Rose Road and South Deer Lane. A new 12-inch main runs southwest along the extents of the concept plan boundary. The 12-inch main connects back to South End Road within a street located southwest of the intersection of South Impala Lane and South End Road. Numerous 8-inch mains are constructed within the proposed street layout. The grid network created by this new system layout provides a looped distribution system, reducing the chances of pressure issues. All pipe size estimates are preliminary and should be revised with detailed flow modeling. The pipe sizes assume that the flow velocities are kept at or below 10 feet per second. As development occurs it is recommended site specific studies are performed to test and confirm available fire flows and minimum pressures can be achieved, as outlined in the *2012 Water Master Plan, table 4-1 City of Oregon City Planning and Design Criteria*.

Stormwater

The City Engineering Division is creating a new series of Low Impact Design (LID) standards. Therefore, a low impact stormwater approach is recommended for the planning area. Providing LID standards to the planning area limits the impact to existing and aging storm systems and reduces the infrastructure required to service the area. LID approaches mimic the natural hydrology of the catchment area. The approach manages stormwater within each basin, separating the basin into several smaller sub-basins. The stormwater within each basin can be managed utilizing the following categories: individual sites, streets and regional facilities. Figure 2 shows where each of these approaches could be used in the South End Concept Plan. Site specific LID designs need to take into account the topography

water
quality
and

and soil conditions of the site. Specific site study analyze should be required to ensure appropriate LID design is implemented.

Individual sites include all residential areas (single family and multi-family), commercial and open spaces. Stormwater runoff is minimized by using less impervious surfaces wherever possible and integrating stormwater management facilities within the properties. Impervious areas are minimized by utilizing porous pavements (i.e. pervious concrete, and eco-roofs). Stormwater management facilities are incorporated into the landscape. For instance, a vegetated bio-swale can be used in a parking lot in a landscape isle, while a small rain garden can be incorporated into a residential yard.

Runoff from roads and streets is managed utilizing 'green streets', where possible. Green streets utilize landscape street-side planters or swales that capture and detain or infiltrate stormwater runoff. The soil and vegetation within the planter or swale filter pollution. They are designed to accommodate the traffic needs while providing a fully functional stormwater management system and landscaping. If the native soil does not allow for infiltration of the stormwater, a sub-surface detention system can decrease the size of a downstream stormwater facility. Green streets are also used to convey runoff rather than utilizing an underground conveyance system.

private

When soils or grading constrain the use of individual site management and green streets, a regional approach to stormwater management should be explored. Regional facilities should be located in low points within open spaces to manage large flows for both treatment and detention before releasing to a creek or river. Regional facilities are usually operated and maintained by the City. Potential locations of regional stormwater ponds have been shown in Figure 3, these areas have are noted conceptually in the low spots of the basin but can be relocated once site specific information is obtained. If a regional facility is proposed it is recommended that further studies be performed to confirm ultimate location, designs, size, soil conditions, and over all site conditions and constraints. In addition downstream analysis should be performed to analyze and mitigate the impacts downstream of the regional system. An alternate location for regional stormwater facilities would be within the Powerline easments, further studies and discussion with the Power Company are required.

Stormwater Conveyance

Two methods for stormwater conveyance both utilize gravity flow to either a creek or river or a regional stormwater facility. The first is surface conveyance consisting of street-side planter or swales and ditches. Surface conveyance contains ditch inlets and culverts. Some manholes may be required to link the systems together. Whenever possible, this should be the first approach to stormwater conveyance. A certain amount of treatment and retention occurs when stormwater is conveyed through a system that is vegetated.

The second is an underground system that includes many more catch basins and manholes than a surface conveyance system. Underground systems can be more expensive to construct since they are conventionally three feet or more below ground. On busier streets such as South End Road, an underground conveyance system is likely more practical.

Sanitary Sewer

The three drainage basins in the study area require pump stations and gravity sewer lines. Each pump station pumps discharge a short distance to gravity lines from each basin, and convey discharge to the intersection of South End Road and Beutel Road. A new pump station and force main will pump the effluence to the South End Road Interceptor, located at the intersection of South End Road and Glacier Court. An alternate discharge location was analyzed to pump the entire area to the Parrish pump station. This option would require the Parrish Pump Station to be upsized along with the associated pressure mains. This option was not preferred by the City.

Collection Improvements

Proposed sanitary sewer system improvements are shown in Figure 4. Due to the existing municipal system and topography of the future serviced area, the conveyance options for the discharge of basins E6, E7 and X1, as outlined in the Sewer Master Plan are quite limited. Basin E6 is illustrated to be pumped through a 4-inch forcemain, north to Beutel Road, where it will discharge to a proposed 12-inch gravity line, then will flow SE to the proposed pump station at the intersection of South End Road and South Parrish Road. Discharge from Basin E7 is illustrated to be pumped utilizing two pump stations located west of South Kelland Court and approximately 1300 feet south of the intersection of South End Road and South Kelland Court. Both pumps within basin E7 will utilize 4-inch forcemains, and discharge to a proposed 12-inch gravity line, located within South End Road, where the 2002 UGB intersects. The proposed 12-inch gravity line will flow northeast along South End Road to the proposed pump station at the intersection of South End Road and South Parrish Road. Future developments within Basin X1 could be routed to the proposed pump station at the intersection of South End Road and South Parrish Road, utilizing the proposed 12-inch gravity lines within Beutel Road and South End Road. The proposed pump station at the intersection of South End Road and South Parrish Road will pump the discharge from basins E6, E7 and X1 through a proposed 10-inch forcemain within South End Road, northeast to the existing 18-inch gravity line at the intersection of South End Road and South Glacier Court.

Routing basins E6, E7 and X1 to the existing Parrish Road Pump Station would require upsizing the existing 12-inch gravity line within South Parrish Road, and constructing a parallel force main along the existing 10-inch force main. The existing Parrish Road Pump Station has a capacity of 1.11 MGD. The future peak five-year inflow to Parrish Road pump station = 0.93 MGD. This leaves a spare capacity of 0.16 MGD. This is the equivalent of serving an additional 375 people. Anything additional would require upsizing the pump station or routing discharge directly to the South End Road Interceptor as previously stated. The buildout peak flow for basin E6, E7 and X1 are approximately 290 gpm, 611 gpm and 1010 gpm, respectively. Basin E7 will be serviced by 2 pump stations, due to the topography of the basin. The pump station to the north of South End Road, as described above, will have a peak flow of 264 gpm, and the pump station to the south of South End Road will have a peak flow of 347 gpm. The proposed pump station at the intersection of South End Road and South Parrish Road will accommodate the peak flow of all 3 basins. The total buildout peak flow will be 1,911 gpm. The pump station at this intersection will require a capacity of approximately 3.0 MGD.

Sizing of the proposed pump stations was based on the buildout peak flow for the average density for the UGB expansion area. The average between the high and low estimate is 2,106 homes, equaling 6.4 units per net acre. An average of 2.3 people per all residential zoning, and 80 gpcd was assumed. These assumptions are consistent with the Sewer Master Plan. The calculated buildout peak flow also assumes I/I values at 1000 gpd/net acre. The I/I value for the Sewer Master Plan is 3000 gpcd, and is likely conservative based on lacking data for the study area. Further flow monitoring is recommended to verify previous I/I assumptions for basins E6, E7 and X1.

The above are preliminary recommendations and it is recommended that the Sewer Master Plan be updated to analyze the South End Concept Plan Area. Locations of proposed pump stations and sewer lines are preliminary and can be relocated based on further studies and site specific information.

Recommend revising the Sanitary Sewer section similar to the following for clarification:

Sanitary Sewer

The three drainage basins in the study area require pump stations, force mains and gravity sewer lines. Each pump station pumps the discharge to gravity lines from each basin, and convey discharge to the intersection of South End Road and Beutel Road. A new pump station and force main will pump the effluence to the South End Road Interceptor, located at the intersection of South End Road and Glacier Court. An alternate discharge location was analyzed to pump the entire area to the Parrish pump station. This option would require the Parrish Pump Station to be upsized along with the associated pressure mains. This option was not preferred by the City.

Collection Improvements

Proposed sanitary sewer system improvements are shown in Figure 4. Due to the existing municipal system and topography of the future serviced area, the conveyance options for the discharge of basins E-6, E-7 and X-1, as outlined in the 2003 Sewer Master Plan are quite limited. Basin E-6 is illustrated to be pumped through a 4-inch forcemain, north to Beutel Road, where it will discharge to a proposed 12-inch gravity line, then will flow southeast to the proposed pump station at the intersection of South End Road and Beutel Road. Discharge from Basin E7 is illustrated to be pumped utilizing two pump stations located west of South Kelland Court and approximately 1300 feet south of the intersection of South End Road and South Kelland Court. Both pumps within basin E7 will utilize 4-inch forcemains, and discharge to a proposed 12-inch gravity line, located within South End Road, where the 2002 UGB intersects. The proposed 12-inch gravity line will flow northeast along South End Road to the proposed pump station at the intersection of South End Road and Beutel Road. Future developments within Basin X-1 could be routed to the proposed pump station at the intersection of South End Road and Beutel Road, utilizing the proposed 12-inch gravity lines within Beutel Road and South End Road. The proposed pump station at the intersection of South End Road and Beutel Road will pump the discharge from basins E-6, E-7 and X-1 through a proposed 10-inch forcemain within South End Road, northeast to the existing 18-inch gravity line at the intersection of South End Road and South Glacier Court.

Routing basins E-6, E-7 and X-1 to the existing Parrish Road Pump Station would require upsizing the existing 12-inch gravity line within South Parrish Road, and constructing a parallel force main along the existing 10-inch force main. The existing Parrish Road Pump Station has a capacity of 1.11 MGD. The future peak five-year inflow to Parrish Road pump station = 0.93 MGD. This leaves a spare capacity of 0.16 MGD. This is the equivalent of serving an additional 375 people. Anything additional would require upsizing the pump station or routing discharge directly to the South End Road Interceptor as previously stated. The buildout peak flow for basin E-6, E-7 and X-1 are approximately 290 gpm, 611 gpm and 1010 gpm, respectively. Basin E-7 will be serviced by 2 pump stations, due to the topography of the basin. The pump station A2 to the north of South End Road, as described above, will have a peak flow of 264 gpm, and the pump station A3 to the south of South End Road will have a peak flow of 347 gpm. The proposed pump station at the intersection of South End Road and South Parrish Road will accommodate the peak flow of all 3 basins. The total buildout peak flow will be 1,911 gpm. The pump station at this intersection will require a capacity of approximately 3.0 MGD. 4

Sizing of the proposed pump stations was based on the buildout peak flow for the average density for the UGB expansion area. The average between the high and low estimate is 2,106 homes, equaling 6.4 units per net acre. An average of 2.3 people per all residential zoning, and 80 gpcd was assumed. These assumptions are consistent with the 2003 Sewer Master Plan. The calculated buildout peak flow also assumes I/I values at 1000 gpd/net acre. The I/I value for the 2003 Sewer Master Plan is 3000 gpcd, and is likely conservative based on lacking data for the study area. Further flow monitoring is recommended to verify previous I/I assumptions for basins E-6, E-7 and X-1.

Figure 1. Water System Improvements

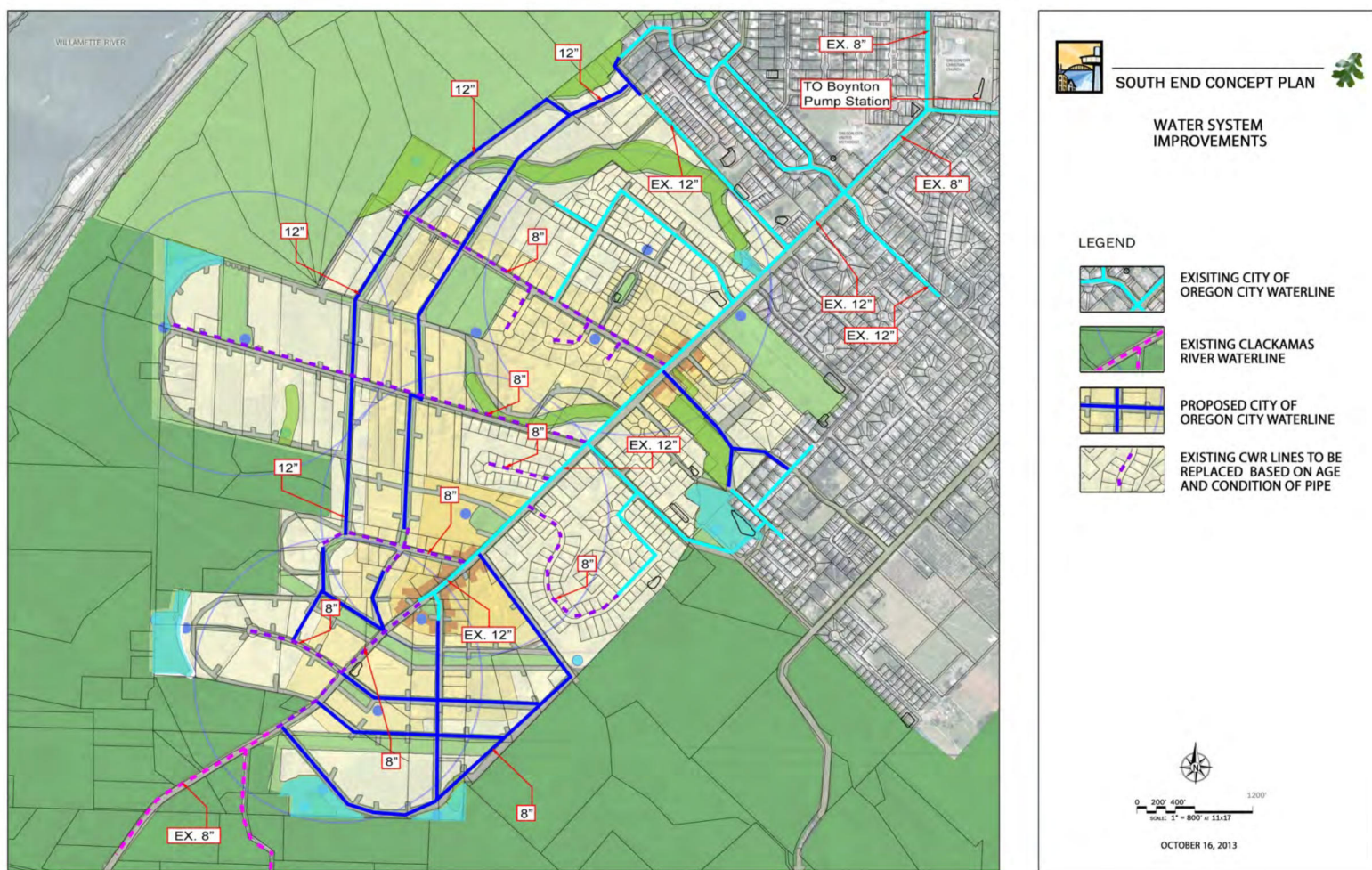


Figure 2. Stormwater System Improvements

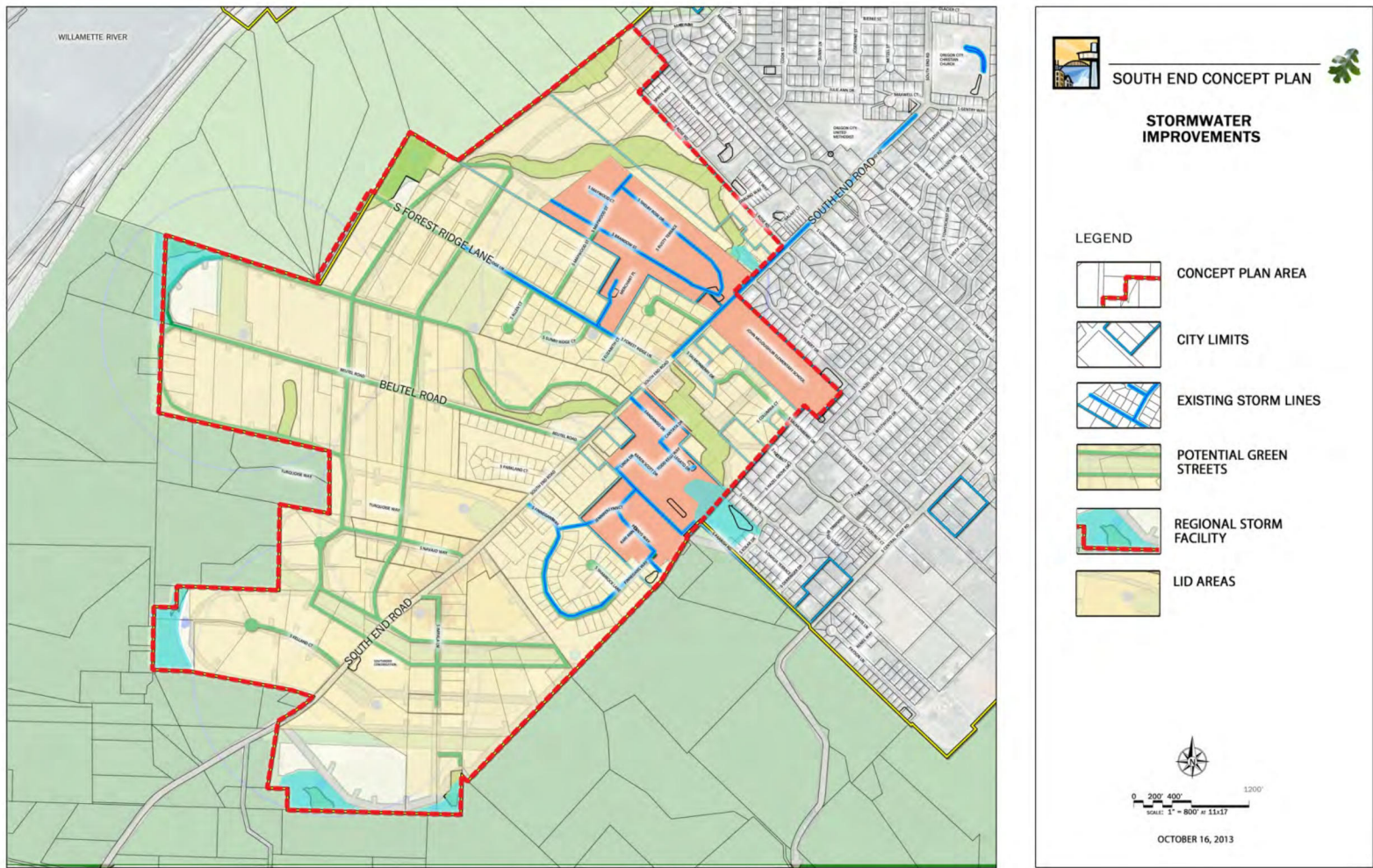


Figure 3. Regional Stormwater Facility Siting

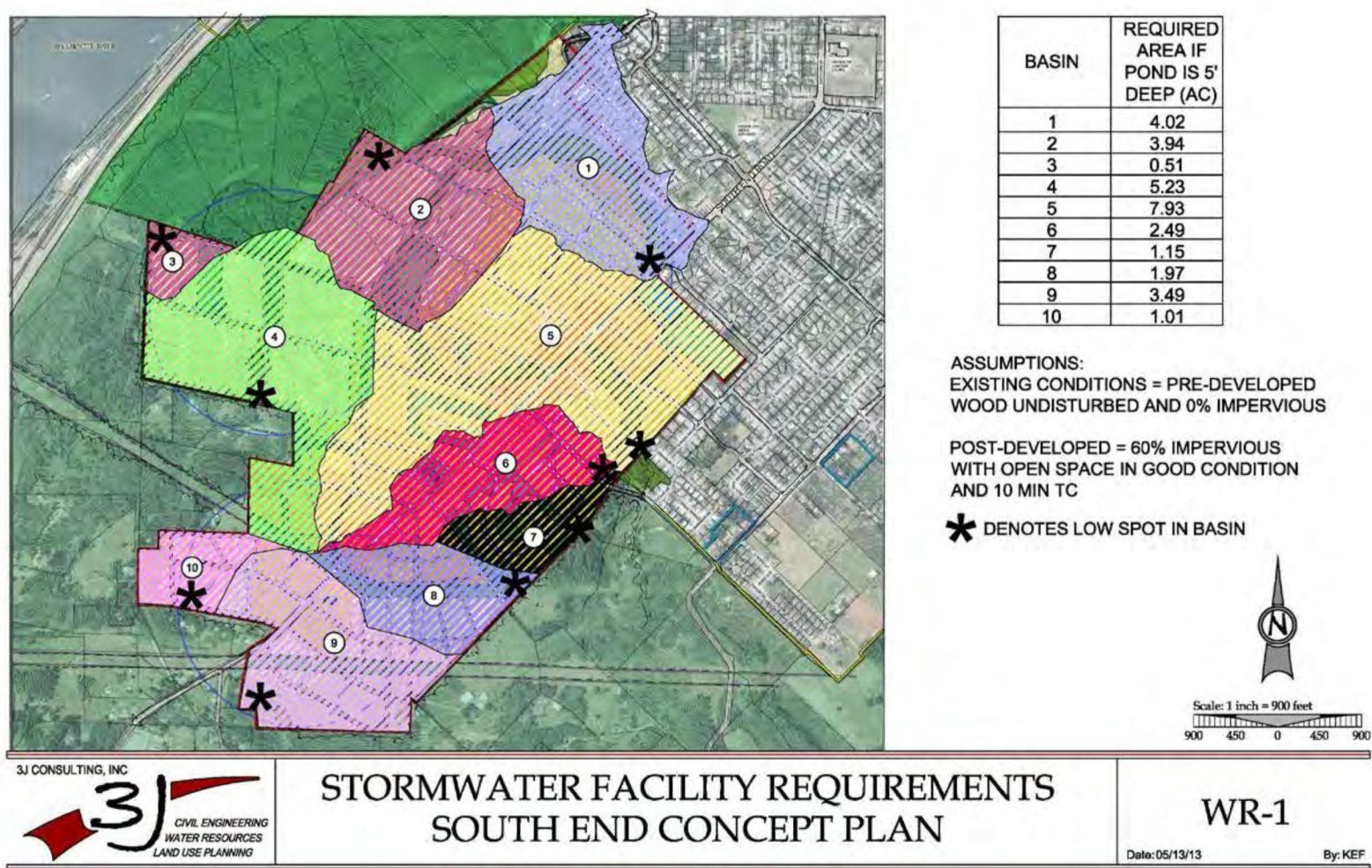
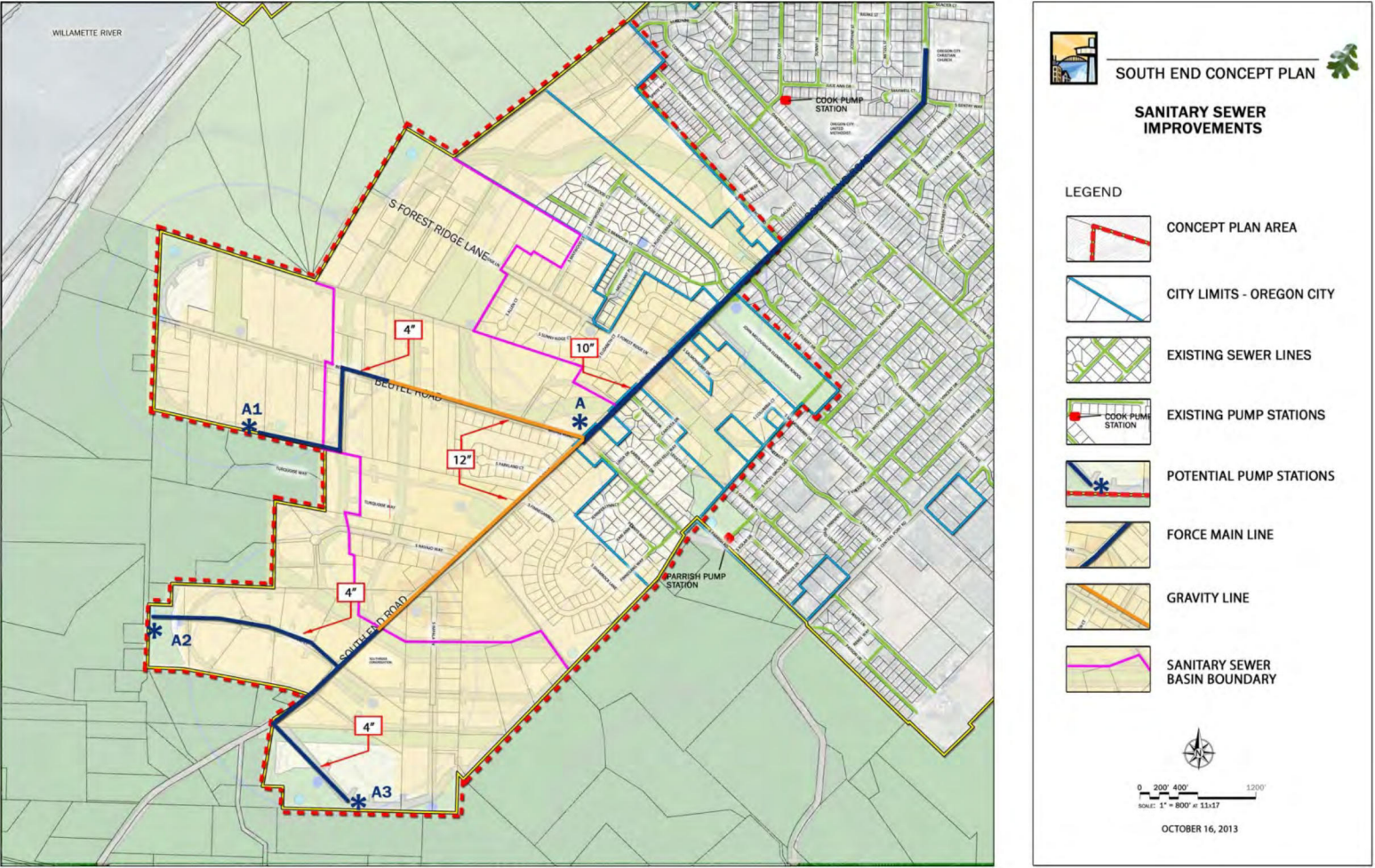
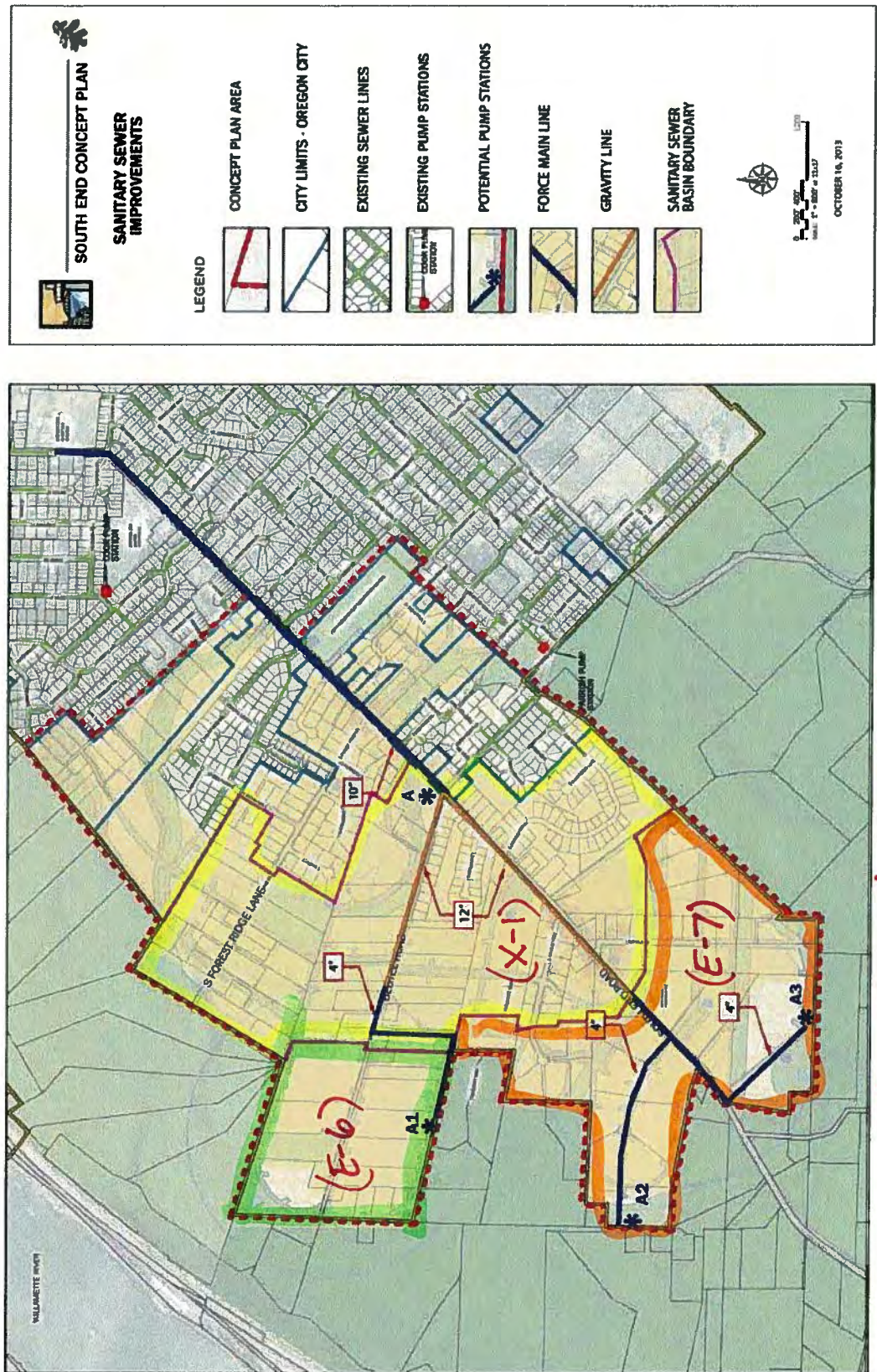


Figure 4. Sewer System Improvements



See next page for example of adding basin boundary.

Figure 13. Proposed Sanitary Sewer Improvements



Appendix G

Oregon City South End TABULATION OF QUANTITIES

Client: **City of Oregon City**
Estimator: **C. Fergeson, 3J Consulting, Inc.**

Date: **10/17/2013**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
System Improvements (SI)					
Water System Improvements					
SI-1	12" DI	12,500	LF	\$115.00	\$1,437,500
SI-2	8" DI (Replace existing CRW water lines with new 8" City-owned water lines)	15,045	LF	\$90.00	\$1,354,050
SI-3	8" DI	10,500	LF	\$90.00	\$945,000
Water System Improvements Subtotal					\$3,736,550
Design Costs (20% of Construction Cost)		20 % of	Construction Total		\$747,400
Construction + Design Cost					\$4,483,950
Contingency (15%)		15 % of	Construction + Design Cost		\$672,600
TOTAL CONSTRUCTION ESTIMATE					\$5,156,600

General Notes

- Quantities are based on electronic GIS design files dated 08/28/2013 by 3J Consulting (Available Upon Request)
- Contractor to furnish all materials, labor, and equipment to complete the above construction schedule items
- All unit costs assume in-place construction including all ancillary items required (ie. Backfill, fittings, shoring, etc)
- LF cost include hydrants, valves, valve boxes, pipe, fittings, and connections to existing system
- Unit Costs in 2013 currency

Contingency for concept level cost estimate seems too low. Recommend higher contingency % for concept level cost estimate.

Unit costs seem reasonable assuming large project completed in one general area with no other costs included such as environmental issues, public outreach, permanent pavement surfacings, traffic control, etc.



Oregon City South End TABULATION OF QUANTITIES

Client: **City of Oregon City**
Estimator: **C. Fergeson, 3J Consulting, Inc.**

Date: **10/17/2013**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
System Improvements (SI)					
Sanitary Sewer System Improvements					
SI-5	12" PVC-SDR35 (Includes pipe and fittings)	4,600	LF	\$100.00	\$460,000
SI-7	Manhole (48")	12	EA	\$4,000.00	\$46,000
SI-8	Basin E6 Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$300,000.00	\$300,000
SI-9	Basin E7 (north) Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$300,000.00	\$300,000
SI-10	Basin E7 (south) Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$300,000.00	\$300,000
SI-11	Basin E6, E7 & X1 (combined) Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$800,000.00	\$800,000
SI-12	Sewer force main (4" min. diameter)	5,400	LF	\$60.00	\$324,000
SI-13	Sewer force main (10" min. diameter)	5,120	LF	\$80.00	\$409,600
Sanitary Sewer System Improvements					\$2,939,600
Design Costs (20% of Construction Cost)		20 % of	Construction Total		\$588,000
Construction + Design Cost					\$3,527,600
Contingency (15%)		15 % of	Construction + Design Cost		\$529,200
TOTAL CONSTRUCTION ESTIMATE					\$4,056,800

General Notes:

- Quantities are based on electronic GIS design files dated 08/28/2013 by 3J Consulting (Available Upon Request)
- Contractor to furnish all materials, labor, and equipment to complete the above construction schedule items
- All unit costs assume in-place construction including all ancillary items required (ie. Backfill, fittings, shoring, etc)
- Force main LF cost include pipe, fittings, and connections to existing system
- Unit Costs in 2013 currency
- Land Purchase and Right-of-Way acquisition not a part of calculations

Contingency for concept level cost estimate seems too low. Recommend higher contingency % for concept level cost estimate.

Unit costs seem reasonable with the exception of the pump stations lump sums costs, assuming large project completed in one general area with no other costs included such as environmental issues, public outreach, permanent pavement surfacings, traffic control, etc.

Sewer Lift Stations Lump Sum costs appear to be low for a pump station designed and constructed to the City's design standards. Recommend the \$300,000 unit prices be changed to \$750,000 and the \$800,000 unit price changed to \$1,400,000 based on past City pump station costs.



Oregon City South End TABULATION OF QUANTITIES

Client: **City of Oregon City**
Estimator: **C. Fergeson, 3J Consulting, Inc.**

Date: **8/28/2013**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
System Improvements (SI)					
Stormwater System Improvements					
SI-11	12" HDPE (w/ Rock Backfill)	20,900	LF	\$100.00	\$2,090,000
SI-12	Manhole (48")	50	EA	\$3,500.00	\$175,000
SI-13	Green Streets (Includes grading, liner(s), planting media, outlet structure, and piping)	34,640	LF	\$250.00	\$8,660,000
SI-13	Regional Pond Construction (Includes grading, flow control structures, plantings, and safety fencing)	21	AC	\$228,000.00	\$4,851,751
Stormwater System Improvements					\$15,776,751
Design Costs (20% of Construction Cost)		20 % of	Construction Total		\$3,155,400
Construction + Design Cost					\$18,932,151
Contingency (15%)		15 % of	Construction + Design Cost		\$2,839,900
TOTAL CONSTRUCTION ESTIMATE					\$21,772,100

General Notes:

- Quantities are based on electronic GIS design files dated 08/28/2013 by 3J Consulting (Available Upon Request)
- Contractor to furnish all materials, labor, and equipment to complete the above construction schedule items.
- All unit costs assume in-place construction including all ancillary items required (ie. Backfill, fittings, shoring, etc)
- Unit Costs in 2013 currency

Contingency for concept level cost estimate seems too low. Recommend higher contingency % for concept level cost estimate.

Unit costs seem reasonable assuming large project completed in one general area with no other costs included such as environmental issues, public outreach, permanent pavement surfacings, traffic control, etc.





South End Concept Plan

Final Draft



October 2013



Acknowledgements

Thank you to all participants in the Concept Plan development process, including these community and civic leaders, staff and consultants.

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Commissioner Rocky Smith, Jr.
Commissioner Carol Pauli
Commissioner Betty Mumm

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EXECUTIVE SUMMARY

The South End Concept Plan preserves what residents value most about South End today while planning for those who will live there in the future. The Concept Plan area is located adjacent to the southwest corner of Oregon City, south of Rose Road and extending approximately one mile south along both sides of South End Road. A robust and comprehensive community engagement process formed the basis of the Concept Plan. A variety of strategies were used to define a community vision and values and engage the community early and frequently with the broadest possible participation. Today, South End is a predominantly residential area of low density single-family homes, with a mix of larger lot of county subdivisions and newly developed city subdivisions. The South End Concept Plan establishes a series of walkable and diverse new neighborhoods that are modeled after the most valued and beloved historic neighborhoods in Oregon City and throughout the region.

Community Vision and Values

Vision

Oregon City's South End is a safe, vibrant and diverse community. Parks, plazas and other public gathering places strengthen the sense of community and connectedness. A variety of housing choices and amenities are the foundation of great neighborhoods for people of all ages. South End's historic rural character is retained through a variety of means. Streams, trees, wetlands and wildlife habitat are protected and enhanced through a network of natural areas. As one center of community, McLoughlin Elementary is a hub of learning and information exchange. Paths, trails and family friendly streets provide safe travel for all. Several transportation options are available and connect South End to downtown Oregon City and the region.

Values

Rural Character

South End is a peaceful community whose pastoral nature is indicated by small farms, large fields and expansive views.

Livable

Homes and neighborhoods in South End are safe, attractive and family-friendly.

Sense of Place

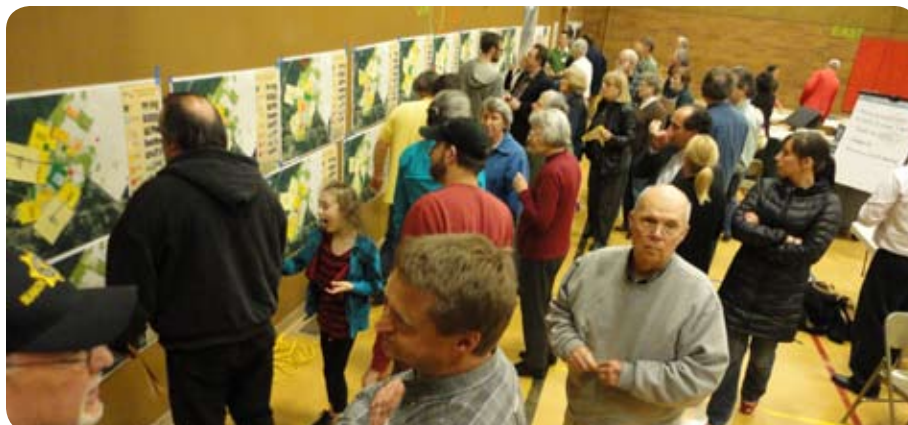
South End residents respect the unique culture and history of the area.

Environmental Quality

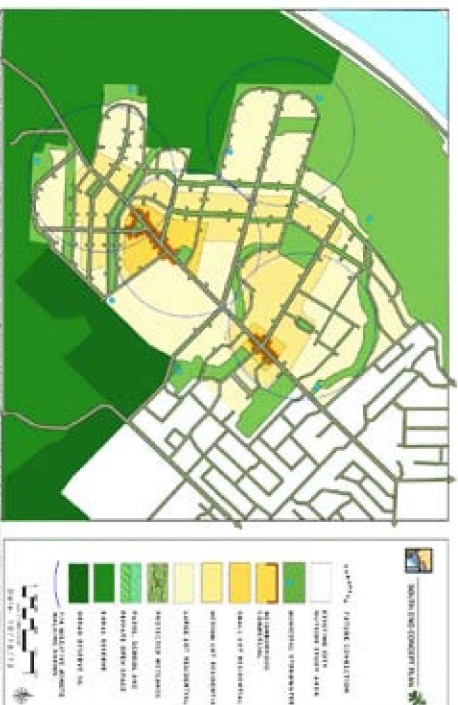
South End residents care deeply for the streams, trees, clean air and water and other natural features.

Excellent Schools

The South End community takes pride in and supports the high quality of its schools.



Concept Plan Diagram



Key Elements

Natural Features

- Preservation of contiguous natural spaces and wildlife corridors.
- Preservation of most wetland areas with several road connections across streams/wetlands at narrow points.
- Improved access to natural areas and views.

Parks and Trails

- Network of new parks, open spaces and gathering places.
- Larger park sufficient for ball fields and other recreational opportunities.
- Trail connections to parks, natural areas, regional trails, neighborhood retail and residential neighborhoods.
- Use of utility corridors for new trails.
- Preservation of private open space for non-public uses.
- Civic uses envisioned in various parks and public spaces.

Housing

- Housing choice—a mix of single family (large, medium and small lots), multi-family and mixed-use designations.
- Small lot residential located in two neighborhood centers along South End Road.

Retail

- Limited neighborhood commercial uses along South End Road at Forest Ridge Lane and Navajo Way.

Transportation

- Complete road network promotes connectivity and increases travel options.
- Pedestrian and bicycle improvements, including new sidewalks, pathways and bike lanes.
- South End Road as three-lane arterial.
- Two family-friendly roads parallel to South End Road: the eastern-most designated a collector.
- A slow, narrow road along the bluffs to provide public access and views. *
- Roundabouts to safely accommodate through-traffic at major intersections.
- Optimized number of new street connections to South End Road to preserve capacity.

Infrastructure

- New water and sewer infrastructure constructed with roads to meet community needs.
- Stormwater retention ponds and swales along natural features at edges of plan area.

BACKGROUND

The City of Oregon City has prepared the South End Concept Plan to preserve what residents value most about South End today while planning for those who will live there in the future. The South End Concept Plan project area is located adjacent to the southwest corner of Oregon City, south of Rose Road and extending approximately one mile south along both sides of South End Road. Today, South End is a predominantly residential area of low density single-family homes, with a mix of larger lot of county subdivisions and newly developed city subdivisions.

The Metropolitan Service District (Metro) requires governing jurisdictions to adopt comprehensive plan provisions for areas brought into the urban growth boundary (UGB) to guide the orderly and efficient conversion from rural to urban uses. The South End Concept Plan establishes a framework of policies and implementing ordinances before annexation can take place and urban-level development can occur. A product of extensive community engagement and technical analysis, the South End Concept Plan is adopted as an amendment to the City's comprehensive plan and zoning code, which must comply with Metro code and DLCD requirements. In compliance with Title 11 of *Metro's Urban Growth Management Functional Plan*, elements of the South End Concept Plan include housing, transportation, natural resources, parks and trails, public facilities and services, schools and financing. In accordance with the Oregon City Comprehensive Plan, the South End Concept Plan also includes commercial designations in an amount sufficient to serve the needs of the South End neighborhood.

Community Engagement

A robust and comprehensive community engagement process formed the basis of the South End Concept Plan. A variety of strategies were used to define a community vision and values and engage the community early and frequently with the broadest possible participation. The community engagement process was designed to:

- Encourage dialogue and provide opportunities to participate meaningfully throughout the planning process.
- Identify and communicate potential Concept Plan benefits.
- Build understanding and trust in the planning process through clarity and transparency.
- Create a framework for implementation.

A 19-member Community Advisory Team (CAT) representing a variety of interests was convened to guide development of the South End Concept Plan. The CAT met seven times throughout the course of the project to review and comment on work products, advise on public involvement and community engagement efforts, act as liaisons to specific constituencies or interest groups, host public events and encourage community members to participate in the Concept Plan process. A Technical Advisory Team (TAT) also was established to review the key deliverables for technical adequacy and jurisdictional conformance. The TAT consisted of City staff and representatives from Metro, Clackamas County and other local service providers and governing agencies.

Sample quotes from participants are included in boxes such as this throughout the document.



Thank you for all the hard work that everyone is doing to keep us all in the loop and asking for our input.



What people like about South End now:

- *South End is a nice, safe community where you can enjoy the scenery and overall feel of the area.*

- *South End is one step into the country from a neighborhood.*

Amazing!

- *I feel very safe in my neighborhood. It is very quiet. It's an easy drive to downtown Oregon City and Portland. At the same time, I'm a minute away from the beauty of the farms where I can cut my Christmas tree, buy farm fresh eggs or ride horses.*

In addition to a host of more traditional public engagement, the city also used a variety of social media forums to enhance community engagement, including an interactive website, email blasts, and regular posts/tweets on Facebook and Twitter.

The community engagement process consisted of two phases. Phase 1 (Community Vision and Values) was designed to 1) provide South End community members with information about the project, including the history of the Urban Growth Boundary, land use planning in Oregon, and reason for concept planning; and 2) engage residents in a discussion about community values, preferred methods of participation, and desired outcomes including potential benefits of concept planning and eventual urbanization. The effort began with eight in depth interviews with residents and key stakeholders to better understand the unique qualities of South End and refine the community engagement approach. The other primary tool for achieving the Phase 1 goals was a series of Community Conversations. The CAT, with support from the City, hosted 17 Community Conversations with various community and civic organizations throughout the city of Oregon City and in the South End area. Participants were asked to respond to these questions:

1. What do you like best about South End?
2. Is there anything you would change about South End to make it better?

An online survey was used to augment the interviews and provide an opportunity for expanded engagement. The City received 40 responses to the same questions of what people like about South End and what they would change to make it better.

Phase 1 results were used to establish a preliminary community vision and values to guide the Concept Plan process. The vision and values were be used to develop evaluation criteria for the draft and final Plan. The vision and values were reviewed during a public open house on December 13, 2012. This was one of four community meetings to engage the broader Oregon City and South End communities. The open house also was used to identify opportunities for future enhancements to preserve South End's key attributes of the natural and built environments. An interactive online forum or "virtual open house" was launched in conjunction with open house and allowed participants to answer the same questions asked at that event. In total, more than 300 people participated in the open house and online forum.

The purpose of Phase 2 (Concept Plan Development) of the community engagement process was to translate the vision and values into a Concept Plan for South End. The City invited community participation through a video hosted on the project website (www.southendconceptplan.org). The first activity of Phase 2 was the February 27, 2013 community workshop where approximately 100 participants learned about best practices in planning and urban design then took part in a land use planning game to envision their ideal land use patterns for the future of South End, including parks, trails, roads, housing, retail and civic uses. The 18 community design maps were used to develop three design alternatives for the future of South End.

The three land use alternatives were presented at Part 1 of the Forum for the Future of South End April 12-13, 2013 where TAT, CAT and community members reviewed the alternatives through two days of events. An online forum was launched April 15th and continued throughout the month. Forum participants identified aspects of the three alternatives they most liked and disliked. These comments were used to develop a preferred community design concept that incorporated the most favored elements of the three alternatives. Community members reviewed the preferred concept Part 2 of the Forum on the Future of South End on June 1, 2013 and accompanying online survey. Participant comments were used to refine the preferred concept resulting in the draft Concept Plan and map. In total, more than 250 people participated in the Forum.

*Buildings should
blend with the current
character of South End.*

Existing Conditions

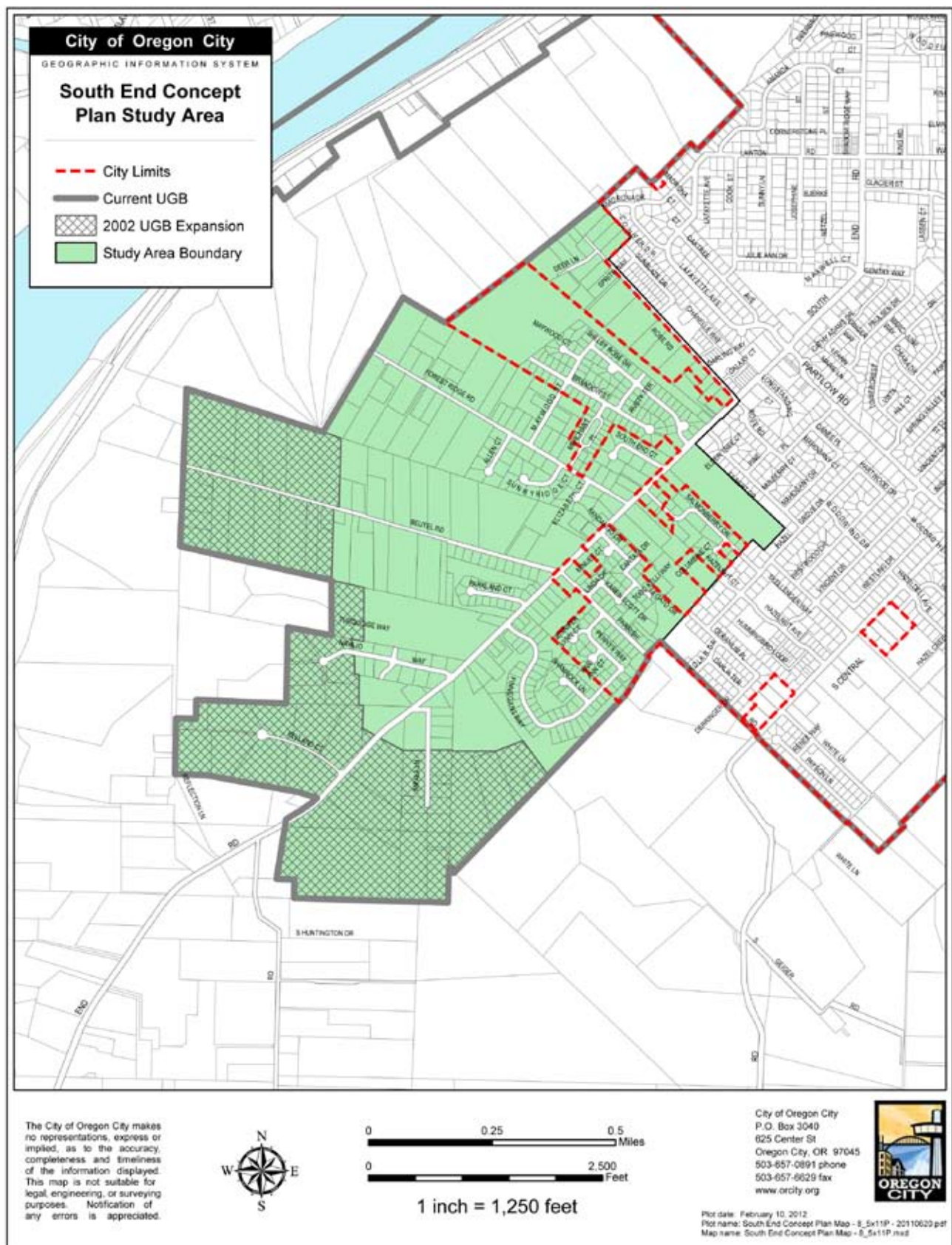
The 611-acre South End Concept Plan study area consists of 133 acres currently in the limits of Oregon City, as well as the 478 acres in unincorporated Clackamas County. The unincorporated area is comprised of approximately 188 acres brought into the Urban Growth Boundary (UGB) in 2002 and another 290 acres added to the UGB prior to 2002. That 290-acre area has not been annexed to the city. The Concept Plan Area is bordered by the City of Oregon City to the north and Clackamas County Urban and Rural Reserves to the east, west, and south. More detailed descriptions of existing conditions in South End can be found in Appendix A.

Land Use

The predominant land use in the concept plan area is low density residential subdivisions developed in the 1970s, interspersed with some limited farm and forest uses, pastures and a few institutional uses. The majority of the housing within the plan area is located along the long access roads which intersect South End Road. The northern end of the planning area, from Forest Ridge Road south, is comprised of a network of county subdivisions interspersed with larger acreage lots developed primarily between the 1970s through the 1990s. Fingers of incorporated city subdivisions interweave with these unincorporated areas.



Figure 1. South End Concept Plan Area



Beutel Road and Forest Ridge Road are long straight spine roads which both run to the east away from South End Road. The housing along these roads consists of a mix of some one or more-acre rural estate-styled housing and several dozen quarter- to half-acre lots in various configurations. The homes are a mixture of newer and older styles with a predominance of single-story, single-family houses with side and rear yard outbuildings.

At the southern end of the planning area is the Kelland Court neighborhood. Lots here tend to be larger and more spread out than the northern end of the planning area. Moving north up Sound End Road leads to several county subdivisions which consist of half to quarter-acre single-family lots and are separated from one another by fields which have yet to develop and in some cases, are designated open space.

Lands in the planning area within the city limits are designated as one of two Oregon City single-family residential zoning districts. Lands within the planning area that fall under the County's jurisdiction are in one of two county zoning designations as shown in Table 1.

Table 1. Zoning within the Planning Area, Oregon City South End, 2012

Zoning	Abbreviation	Jurisdiction	Acres
R-8	Single Family Dwelling District 8,000 SF Minimum	City of Oregon City	43.2
R-10	Single Family Dwelling District, 10,000 SF Minimum	City of Oregon City	62.0
FU-10	Future Urban 10-Acre District	Clackamas County	314.1
RRFF-5	Rural Residential Farm Forest 5-Acre District	Clackamas County	191.5

Source: City of Oregon City Municipal Code, Title 17 / Clackamas County Zoning and Development Ordinance

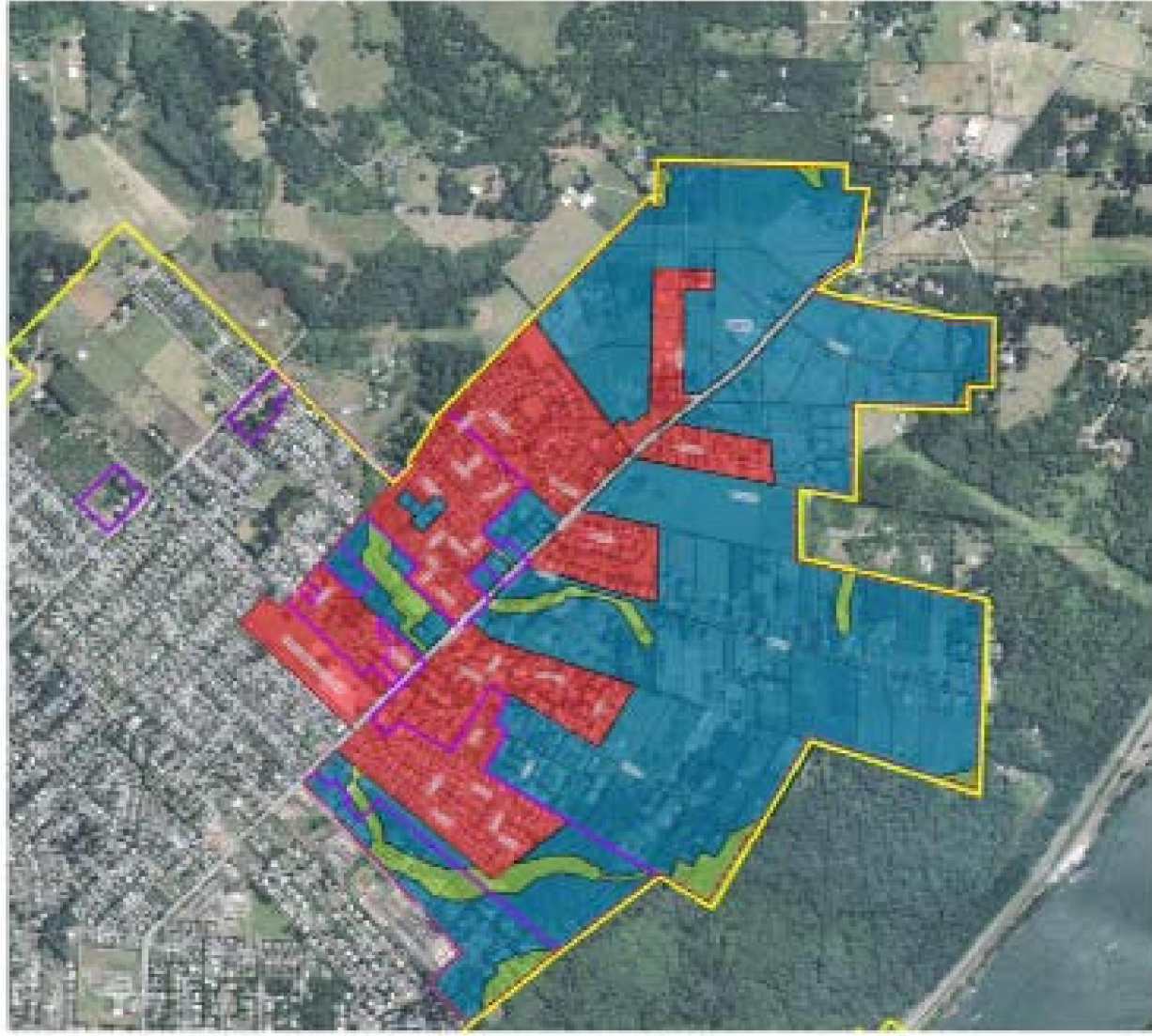
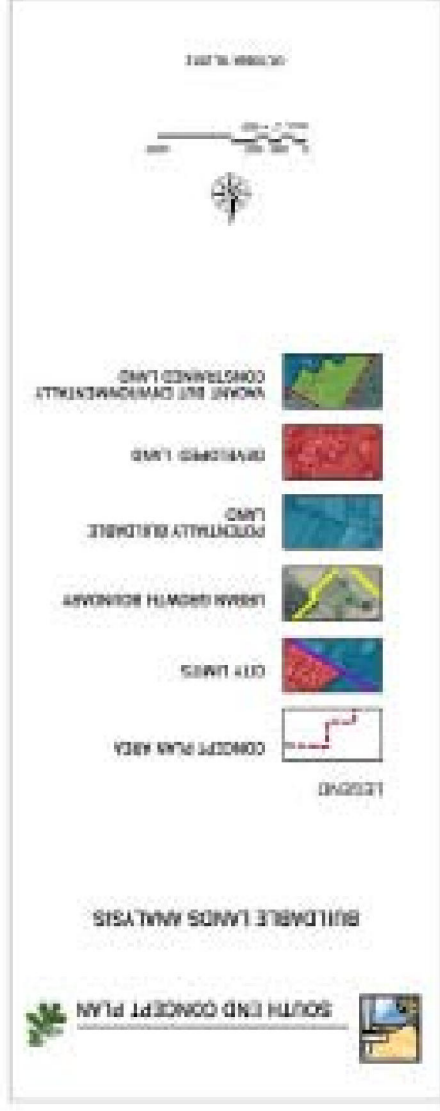
Buildable Land Analysis

Buildable lands are those within the urban growth boundary that are suitable, available, and necessary for residential or employment uses. Buildable lands include both vacant land and land that is likely to be redeveloped, and are not severely constrained by natural hazards or subject to natural resource protection measures. The amount of buildable land within the planning area is described in Table 2. The 283 net buildable acres identified in this preliminary analysis are the maximum acres projected to be available for development, as shown in Figure 2.

Table 2. Buildable Areas, Oregon City South End, 2012

Gross Area Outside City Limits	498.7 Acres
Developed Land	101.8 Acres
Unbuildable Land	27.7 Acres
Buildable Land	369.2 Acres
New Roads and Utilities (25%)	92.3 Acres
Net Buildable Area	283 Acres

Figure 2. Buildable Lands Analysis



Transportation

Located at the top of Canemah Bluff, the planning area is characterized by disconnected streets with large block lengths despite the relatively flat terrain. The only street providing for higher capacity motor vehicle movement through the study area is South End Road, running north-to-south connecting the study area to McLoughlin Boulevard (Highway 99E) at two locations, located roughly two miles north and south of the study area. The southerly route towards Canby has a connection at 99E that is designed for rural operating conditions, and may need to be upgraded to adequately serve higher levels of traffic. Most of the remaining streets in the planning area are non-through routes and connect directly to South End Road.

South End Road and Salmonberry Drive are generally the only routes that provide dedicated bicycle and pedestrian access in and out of the Plan area. South End Road lacks continuous sidewalks. While motor vehicle traffic volumes are not very high, the posted speed is 40 miles per hour and this section of South End Road abuts John McLoughlin Elementary School, a significant source of walking and driving trips. Continuous bike lanes along South End Road north of Beutel Road connect the study area to Warner Parrott Road. As an east-to-west through street with bike lanes, Warner Parrott Road is an important connection for bicycle travel in Oregon City, linking bicyclists to other key routes in the City, including Linn Avenue, Beaver Creek Road and Molalla Avenue.

While transit service is not currently provided in the study area, it is provided in Oregon City by TriMet via seven fixed bus routes connecting Oregon City to the rest of the Portland Metropolitan area.¹ An Americans with Disabilities Act (ADA) paratransit service is also available within the study area. In addition, seasonal transit service is provided to residents and tourists via the Oregon City Trolley, and regional service is provided via the Canby Area Transit system, South Clackamas Transportation District, and Amtrak. Also, the Oregon City Pioneer Community Center runs a transit bus service for seniors to access essential services through a contract with Ride Connect, which is funded with federal grant funding.

We need to make sure the roads are safe for walkers and bikers.

Currently, there is nowhere to walk in many places.



Public Infrastructure and Services

Water

As shown in the City's 2012 Water Master Plan, the South End Concept Plan area is served by Boynton and Henrici Reservoirs and the Mountainview Pump Station. Water services within the planning area are served by both the City of Oregon City and Clackamas River Water (CRW). Transmission mains within South End Road are owned by the City of Oregon City and Clackamas River Water. There is a master service meter located just southwest of S. Impala Lane and South End Road intersection, which delineates the two service districts. The City and CRW have a joint access agreement for special situations for areas outside of the City limits. A majority of the study area is serviced by CRW under this agreement as these areas

¹ TriMet discontinued service on South End Road in 2009, due to low ridership and budget reductions for local bus services.

are intermixed with unincorporated and incorporated properties. Areas outside of the City limits are serviced by Clackamas River Water District (CRW).

Stormwater

The planning area falls within the Amanda Court, Allen Court, and South End drainage basin areas as shown in the City of Oregon City Drainage Master Plan (January 1988). These basins are part of tributaries that drain to the Beaver Creek. Stormwater within the study area is currently being managed by a combination of roadside ditches, natural drainage channels, and underground storm conveyance systems. Additionally, there are a handful of existing detention ponds within the City's boundaries that service existing subdivisions and a privately owned detention pond located along the southeast side of South End Road and Kelland Court.

Sanitary Sewer

The only areas serviced by City wastewater collection are the lands located within the City limits in the northeast and east sections of the planning area. The majority of the homes within the planning area are outside city limits and currently on septic systems. The City Sanitary Sewer Master Plan indicates that the areas within the Plan boundary will drain to the South End Basin and appear to be able to handle the load at build out to urban densities. Areas within the Plan area that are inside City limits convey flows to the Parish Pump Station to the wastewater treatment plant.



*I really like emphasizing
access for everyone to
the views and beauty of
the area.*

Natural Resources

Two potentially jurisdictional wetlands and seven other waters of the State/United States comprising approximately 3.7 acres and 2.38 acres respectively were identified within the Plan area. Most of the wetland acreage is comprised of a somewhat linearly-shaped depression along a stream channel located in the northernmost portion of the study area. The other wetland area is east of the intersection of Forest Ridge Road and South End Road, near the confluence of two channels.

There are no significant natural areas in South End as defined under Oregon Statewide Land Use Planning Goal 5. However, the Canemah Bluffs Natural Area is directly adjacent to South End and overlook the Willamette River. The Willamette River is an American Heritage River and the Willamette River Water Trail is one of 14 nationally recognized water trails. There are several existing wildlife habitat types in the area, including approximately 102 acres of forested area and 43 acres of open grass space.

Parks and Trails

There are no public parks within the South End study area—existing open space is privately owned and maintained and signed as restricted access. Residents living in South End can utilize nearby Madrona Open Space, owned by the City, and John McLoughlin Elementary School open space, owned by the Oregon City School District. Currently in South End, there is a precedent for privately maintained open spaces. South Park Estates, Finnegan's Terrace and Merchant Meadows are



examples of subdivisions that maintain private open space areas. Some of these open spaces contain septic drain fields serving these subdivisions.

The Metro-owned and maintained Canemah Bluff Natural Area, outside the urban growth boundary, provides residents of South End with opportunities for engaging in hiking, nature viewing, and other recreational activities. This 308-acre natural area is split into two distinct sections and serves as a significant wildlife habitat resource for the region. Metro anticipates developing a formal master plan for the southern section of Canemah Bluffs within the next few years. This section of Canemah Bluffs is closest in proximity to the residents of South End. Filbert Run Park is a planned 3.5-acre park site that will be located just two blocks northeast of the South End study area. Park amenities have yet to be determined.

Currently, the South End study area does not have any publicly designated walking or biking trails. The Trails Master Plan (2004) identifies several trail projects that would improve active transportation access in South End, including the proposed Oregon City Loop Trail and Canemah Bluff Trail and BPA Powerline Trail. Planned inter-neighborhood trails include Finnegan's Trail and Parkland Trail.

Housing and Commercial Market

Oregon City had approximately 14,388 employees within the local service area in 2010, according to Metro. Metro forecasts indicate that Oregon City will add another 5,073 new households and 8,098 new jobs between 2010 and 2035, including 2,337 retail jobs, 3,263 service jobs and 2,498 other (industrial and government) jobs. Primary locations for new employment include downtown Oregon City as well as planned development areas such as Beavercreek, and locations in and around the Clackamas Community College campus. The South End area is expected to add approximately 1,539 households and 76 jobs.

Single-family detached housing units have traditionally dominated Oregon City's residential development patterns. Recent housing developments along South End Road include a mix of single-family detached homes, small lot detached homes, townhomes and duplexes.

Oregon City has had relatively high vacancy rates for general retail and has shown negative absorption levels for both general retail and shopping center space over the past 12 months. Within the Primary Market Area for the South End area there is significant retail trade leakage, which occurs as households travel outside the area to make retail purchases. By adding a neighborhood or community shopping center, South End could be positioned to intercept a portion of the retail trade leakage and benefit from long-term growth in household buying power that would occur as additional people move into Oregon City.

Opportunities and Constraints

Opportunities and constraints were developed based on comments received at the December 13 Community Open House and are illustrated in Figure 3.



This area is residential and people have bought homes in this area for that reason.



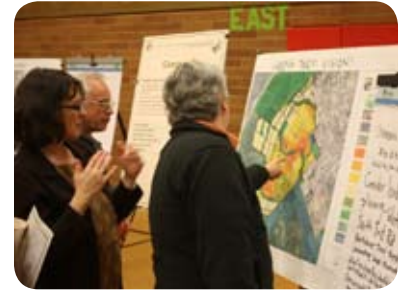
I like the clusters of commercial areas as opposed to "strip" areas.

Opportunities

- Large lot sizes within the planning area allow for large assemblages of property.
- Existing properties can be consolidated into a regionally managed stormwater system to and preserve natural resources and sensitive areas.
- New roadways, paths and trails can link homes to local and regional amenities.
- Preserve views as a lasting amenity for future residents.
- High potential for successful residential development due to a preference for suburban neighborhoods, increasing householder income levels and South End's proximity to schools and parks
- Lack of neighborhood amenities may be addressed through a combination of appropriate zoning and adequate site planning.

Constraints

- Existing development pattern and ownership fragmentation makes property assembly difficult.
- Established linear road network makes it difficult to provide new connections between existing roads.
- Large existing developments reduce the ability to link roads and trails.
- Fragmented development along main roadways has low redevelopment potential.
- Public infrastructure (sewer, water, and stormwater) are currently lacking or built to a county standard.



SOUTH END CONCEPT PLAN

Community Vision and Values

Vision

Oregon City's South End is a safe, vibrant and diverse community. Parks, plazas and other public gathering places strengthen the sense of community and connectedness. A variety of housing choices and amenities are the foundation of great neighborhoods for people of all ages. South End's historic rural character is retained through a variety of means. Streams, trees, wetlands and wildlife habitat are protected and enhanced through a network of natural areas. As one center of community, McLoughlin Elementary is a hub of learning and information exchange. Paths, trails and family friendly streets provide safe travel for all. Several transportation options are available and connect South End to downtown Oregon City and the region.

Values

Rural Character

South End is a peaceful community whose pastoral nature is indicated by small farms, large fields and expansive views.

Livable

Homes and neighborhoods in South End are safe, attractive and family-friendly.

Sense of Place

South End residents respect the unique culture and history of the area.

Environmental Quality

South End residents care deeply for the streams, trees, clean air and water and other natural features.

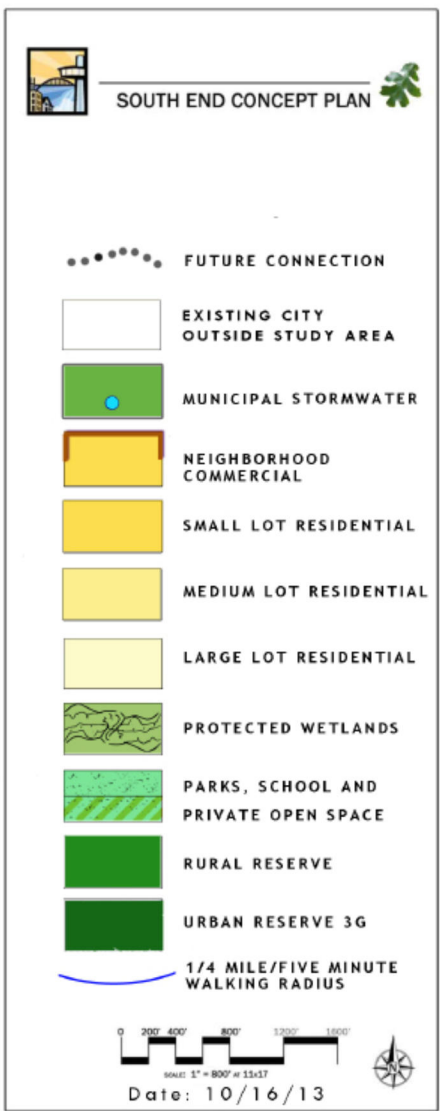
Excellent Schools

The South End community takes pride in and supports the high quality of its schools.

Increase the diversity, but not necessarily the density, by promoting a few small retail businesses, more housing types and more options in transportation than just the private automobile.



Figure 4. Concept Plan Diagram



The locations of the features shown on this map, including future land uses, roads, and open space areas are for concept planning purposes. The final location of these features will be determined when a site specific development plan is proposed following annexation initiated by property owners. Existing lawfully established land uses and structures within the UOB are regulated by Clackamas County, and are permitted to remain until such time as the property owner decides to annex to Oregon City and develop their property subject to Oregon City zoning and development regulations.

Concept Plan Overview

The South End Concept Plan establishes a series of walkable and diverse new neighborhoods that are modeled after the most valued and beloved historic neighborhoods in Oregon City and throughout the region.

Key Elements

Natural Features

Preservation of contiguous natural spaces and wildlife corridors.

Preservation of most wetland areas with several road connections across streams/wetlands at narrow points.

Improved access to natural areas and views.

Parks and Trails

Network of new parks, open spaces and gathering places.

Larger park sufficient for ball fields and other recreational opportunities.

Trail connections to parks, natural areas, regional trails, neighborhood retail and residential neighborhoods.

Use of utility corridors for new trails.

Preservation of private open space for non-public uses.

Civic uses in various parks and public spaces.

Housing

Housing choice—a mix of single family, multi-family and mixed use designations.

Small lot residential located in two neighborhood centers along South End Road.

Retail

Limited neighborhood commercial uses along South End Road at Forest Ridge Lane and Navajo Way.

Residents have a choice of places to work, shop, recreate and learn within a short walk or drive from their homes. Community-serving retail stores, workshops and businesses cluster in two small neighborhood centers along a new South End main street, where the greatest number of social and economic interactions occur. Most homes are within a five to ten minute (1/4 to 1/2 mile) walk to the neighborhood centers, where they can pick up some essentials from a small grocer or meet friends for coffee in a local deli or café.

Public parks and open spaces provide places to gather, recreate and enjoy the area's scenic beauty. These green spaces also preserve and protect sensitive resources. Small neighborhood parks are dispersed throughout the neighborhoods, just a two to three-minute walk from most residences. A large, eight-acre park has the potential to provide ball fields, group picnic areas, a dog park and other recreational facilities to users throughout the city. Natural wetlands in drainages and small creeks combine with boulevards to create several looping greenways surrounding the neighborhoods. These greenways provide a circuit that eventually joins with the John McLoughlin Elementary School open space and meet up with the new Metro Regional Canemah Bluff Natural Area with preserved natural habitat and extensive hiking trails.

Homes are grouped close together in the blocks surrounding the neighborhood centers, while lots further from the centers, toward the neighborhood edges, are increasingly larger. Many of the lots in the new neighborhoods will have rear service alleyways for accessing garages behind houses and shops. By eliminating garages from the street, houses can be designed to orient front porches and stoops to the streets, which in turn contribute to "eyes on the street" or natural surveillance of passersby. Neighbors knowing one another and keeping a watchful eye on the streets, sidewalks and parks are the best security for a community.

South End utilizes a network of streets connecting convenient destinations to which residents can walk, bike or drive. New local streets and lanes are added incrementally from one branch to the next to help disperse travelers, provide parallel routes to South End Road, and maintain slow speeds throughout the neighborhood. Eventually these "capillary" streets will form a web of ways to travel throughout the community. Some proposed roadways within the concept plan will utilize a center island which may be used for tree planting, pedestrian features, and art installations while also providing stormwater management functions.

Sidewalks and pathways on both sides of every street provide the means to travel the neighborhoods safely. Narrow street widths and on-street parking reduce traffic speeds throughout South End. Children can walk or bike safely to school on this network of interconnected paths, sidewalks and streets. The interface between the neighborhoods and the Urban and Rural Reserves at their edges is of particular

interest. In most locations, a narrow, slow moving road runs along the edge of the neighborhood allowing residents throughout the community to enjoy natural parks and scenic views.

Civic uses, such as libraries, community centers, park pavilions, post offices, senior centers and interpretive centers, are places where people gather in addition to stores and cafes. While these places fit well in the neighborhood centers along the main street, they can also disperse in the neighborhoods, depending on their functions. Since civic uses are community-gathering places, they are best to be in highly visible places, perhaps at the end of an important street, or overlooking a park, plaza or square. These become the symbolic icons that people use to remain oriented and grounded in their communities.

The timing and extent of new improvements depends on many factors, including market conditions and the desire of owners to develop their properties. New development pays the majority of infrastructure costs through Systems Development Charges and other fees. The costs of large capital infrastructure such as sewer mains and pumps stations necessary to support private redevelopment of the plan area are thoroughly analyzed and properly financed before development occurs.

Land Use

Property owners must apply for annexation of lands within the plan area to the City before any new development may take place. Upon voters' approval the concept plan can slowly start to take form. South End currently serves primarily residential frontages. The proposed concept adds two small neighborhood commercial centers populated by several main street-oriented retail and mixed use opportunity sites. The northernmost commercial district is centered around the intersections of South End Road and S Forest Ridge Lane. The southernmost neighborhood commercial site is located around the intersections of South End Road and S Impala Lane and S Navajo Way. The remainder of the South End Road Corridor continues to provide opportunities for residential development. New developments are encouraged to limit vehicular access to South End Road, instead favoring access from a series of new local streets created as the periphery of the planning area is developed.

The concept plan is designed to retain as much of the existing rural character as possible in the outer edge of the area through large lot residential land use. The plan also reflects this notion by applying the City's large lot land use designations throughout the majority of the planning area.

While the outer edge of the plan is large lot residential, a mixture of districts provide for a diverse range of housing opportunities. A few portions of the plan are available for attached and multi-family housing. Small lot residential districts are clustered around the community's activity centers where they are supported by urban services and eventual access to transit. Large lot areas radiate out from the centers, providing a gradual transition in density to the community's edges.

Large lot residential zoning makes up the majority of the planning area with more than 245 acres of low density residential lands. A total of 132 acres of medium

Key Elements

Transportation

Complete road network promotes connectivity and increases travel options.

Opportunities for new sidewalks, pathways and bike lanes.

South End Road as three-lane arterial.

Two family-friendly roads parallel to South End Road; the eastern-most designated a collector.

A slow, narrow road along the bluffs to provide public access and views.*

Roundabouts to safely accommodate through-traffic at major intersections.

Optimized number of new street connections to South End Road to preserve capacity.

Infrastructure

New water and sewer infrastructure constructed with roads to meet community needs.

Stormwater retention ponds and swales along natural features at edges of plan area.



lot and 23 acres of small lot residential zoning is located in and near the activity centers along South End Road. Again, zoning only applies when properties are annexed to the city.

Housing

By far, the largest allotment of lands within the concept planning area is residential. Approximately 400 acres are identified within the conceptual planning area as residential lands. When annexed to the City, the lands will be assigned a variety of existing large lot zoning designations (R-10, R-8, and R-6) with 10,000, 8,000, and 6,000 square foot lots. The plan area will also contain selected medium and small lot residential areas. The City's existing R-5 and or R-3.5 zoning designations will be applied to medium lot areas resulting in parcels which range between 5,000 and 3,500 square feet. The medium lot designation will support detached residential homes as well as townhome or multiplex styled housing products. The City's existing R-2 zoning designations will be applied to the small lot residential district, resulting in average lot sizes of 2,000 square feet.



The residential mix proposed within the planning area will eventually result in a wide range of dwelling unit types and densities providing housing choice for all income levels. Table 3 illustrates the number of potential dwelling units within each residential category, ranging from a high of 2,637 units to a low of 1,747 units.

Table 3. Potential South End Dwelling Units

Residential Category	Potential Zoning	Gross Area (Acres)	Net Area (Acres)	High Density Estimate (Units)	Low Density Estimate (Units)
Large Lot Residential	R-10, R-8, or R-6	244.7	195.8	1,193	716
Medium Lot Residential	R-5 or R-3.5	132.3	105.9	1,106	774
Small Lot Residential	R-2	23.0	18.4	336	256
Neighborhood Commercial / Mixed Use	MUR	11.2	9.0	No Assumed Density	No Assumed Density
Total		400	322	2,637	1,747

Note: See Appendix B for detailed density calculations.

Oregon City is required by the Metro Urban Growth Management Functional Plan to provide for an average density of 10 units per acre in the 2002 UGB expansion area. The area added prior to 2002 is governed by the Metropolitan Housing Rule and requires the City to provide for 8 units per acre. The net acreage of the 2002 UGB expansion area is approximately 133 acres resulting in the need to provide for 1,330 units. The net acreage of the pre-2002 UGB expansion area is approximately 196 acres, resulting in the need to provide for 1,568 units. Therefore, Oregon City is required to provide for approximately 2,898 homes, 261 more units than provided at the high end of the South End Concept Plan density range.

The South End Concept Plan is substantially compliant with state and regional requirements for several reasons. 1) The rural character of the community is part of its unique culture and history and is identified as a core value in the Concept Plan. 2) The 8 units per acre provision of the Metropolitan Housing Rule applied to

pre-2002 UGB expansion areas is an average that applies to the entire city. South End is located at the urban-rural fringe and is adjacent to rural reserves, where lower densities are more appropriate. Other areas of the city better served by transportation infrastructure are better suited to accommodate higher densities. 3) South End Road is the only street that carries higher capacity motor vehicle movement through the area and serves as the incident route for Highway 99E in case of an emergency. Lower residential densities help relieve the burden on South End Road and key intersections outside the Concept Plan area at McLoughlin Boulevard and South 2nd Street.

Neighborhood Commercial

Areas of the plan designated as neighborhood centers are assigned the City's Neighborhood Commercial zoning designation upon annexation. The implementation of the Neighborhood Commercial zoning results in an urban services and trading zone with opportunities for smaller scaled community convenience facilities. Permitted uses within the neighborhood commercial zone include a variety of residential and commercial uses.

Parks and Trails

The South End Concept Plan provides access to a network of parks and open space within easy walking distance of residents and offers a variety of opportunities for recreation. The South End area can be organized into roughly four neighborhoods based on a quarter-mile (five-minute) walking radius. The plan utilizes bands of open space consisting of sensitive habitat and drainage areas, park land and roadways with landscaped central parkways to connect each of these neighborhoods to each other and the adjacent regional natural area at Canemah Bluffs. Neighborhood commercial uses are focused along South End Road, with several opportunities to connect to park sites adjacent to these higher density areas, including creating a village center in the form of a plaza or green space.

Also key to the development of the South End Concept Plan is an eight-acre community park. The 1999 Oregon City Park and Recreation Master Plan indicated a critical need for the City to acquire a park in this area as this portion of the City does not have access to community park facilities, is experiencing increased growth and has a limited supply of developable land. Oregon City community members were surveyed in 2008 as part of the Parks and Recreation Master Plan Update. At the top of the list of needed parks and recreation facilities were: walking and biking trails (77%), small neighborhood parks (70%), open space and natural areas (61%), large group picnic areas and shelters (59%), large community parks (59%), and nature trails and nature center (56%). The most common reason residents traveled outside the City for recreation purposes was to participate in soccer, baseball and basketball. The overall variety of facility types in the South End should be carefully considered as part of any site specific development plan.

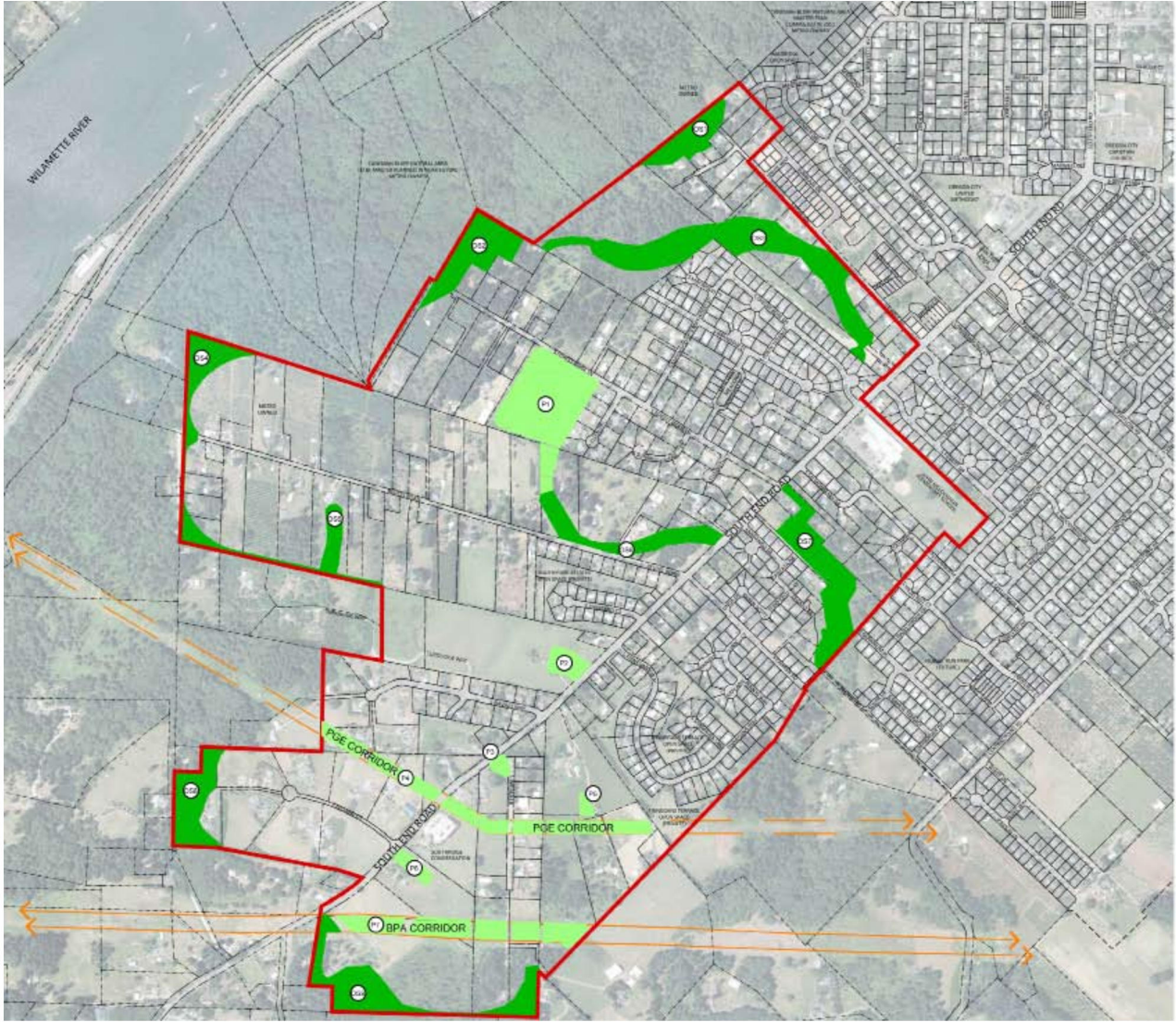
The Oregon City Park and Recreation Master Plan, National Recreation and Park Association's park and recreation facility guidelines provide the following standards for park development: 1-3 acres of neighborhood parks per 1,000 residents; 2-4 acres of community parks per 1,000 residents; and 6-10 acres of developed park



*Retain more open space
and working landscape,
such as farms and forest.*



facilities per 1,000 residents. These standards indicate the need for a minimum of 19.8 acres of developed parks, including neighborhood and community or other developed park facilities in the planning area, assuming a minimum buildout population of approximately 2,200 residents. As currently proposed, the South End Concept Plan provides 24 acres of parks and an additional 51 acres of open space, as shown in Figure 5.



SOUTH END CONCEPT PLAN

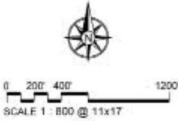


PROPOSED PARKS AND OPEN SPACE

- LEGEND
- OPEN SPACE
 - PARK
 - SECP BOUNDARY

Open Space Area	Description	Acres
OS1	Canemah Bluffs extension (steep slopes)	3
OS2	Canemah Bluffs extension (steep slopes)	5
OS3	wetland/drainage	12
OS4	open space	6
OS5	wetland/drainage	2
OS6	wetland/drainage	4
OS7	wetland/drainage	7
OS8	open space	5
OS9	wetland/drainage	8
		51

Park Area	Description	Acres
P1	community park	10
P2	village center	1
P3	neighborhood park	0.4
P4	PGE corridor (easement)	6
P5	neighborhood park	0.3
P6	neighborhood park	1
P7	BPA corridor (easement)	6
		24



October 21, 2013

Figure 5. Proposed Parks and Open Space Improvements

Natural Resources



*Public transportation
is desperately needed,
particularly as the
population ages.*

Important natural resources occur within the South End Concept Plan area. These resources are predominately associated with unnamed stream channels located on the eastern portion of the plan area, and the area of western bluffs overlooking the Willamette River. The South End Concept Plan takes great care to preserve and integrate natural resources. An inventory map showing streams, wetlands and their buffers, and a vegetation classification map showing forest canopy and open spaces are used to inform decisions on where to plan development and where to preserve open space and natural resources. Most development is concentrated outside of and away from natural resources, while recreational areas such as trails and parks are designed to complement and preserve those resources.

Transportation

South End has an interconnected network of multi-modal streets that take advantage of the relatively flat terrain at the top of the bluff and build upon and connect with existing streets in the area. The design of the streets reflects the character of the neighborhood, reinforcing its rural nature while accommodating all modes of travel and users of all ages and abilities. The streets are more than just places for automobile travel; they are also where people gather, walk, bike, access transit, and park their vehicles. As such, they are designed to safely connect people to where they need to go, giving residents, and visitors more travel choices to destinations.

Multi-Modal Street System and Function

The 2013 Oregon City Transportation System Plan (TSP) street classification system consists of a scale and design appropriate to adjacent properties and land uses in South End as illustrated in Figure 6. These multi-modal classifications also provide for and balance the needs of all travel modes including pedestrians, bicyclists, transit riders, motor vehicles and freight. Within these street classifications unique circumstances may lead to alternative context sensitive designs. The Oregon City multi-modal street system standards adopted in the 2013 Oregon City TSP are further modified to reflect proposed land uses in the South End Concept Plan area, shown in Figure 7.



Figure 6. Street Design Type

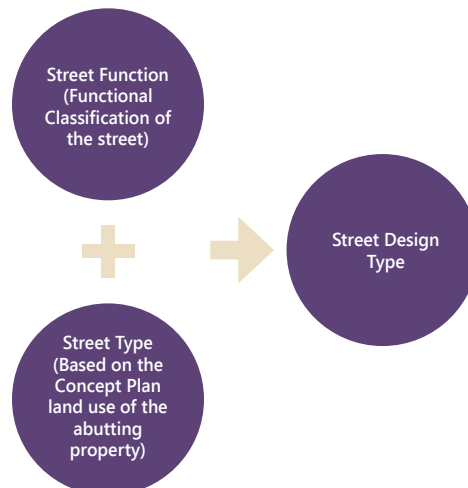
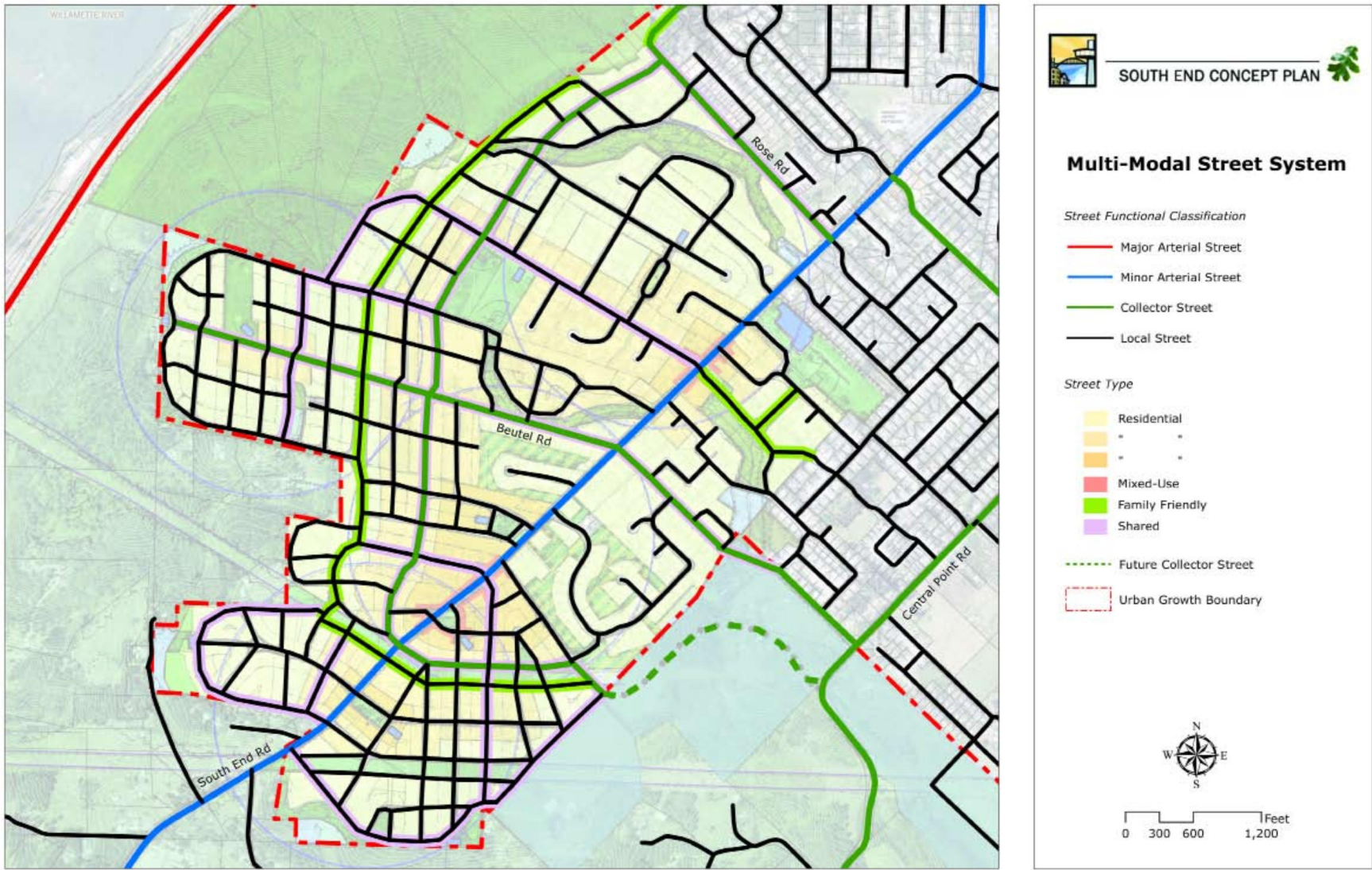


Figure 7: Multi-Modal Street System



The functional classification of a roadway defines its design characteristics (such as minimum amount of travel lanes), level of access and usage within the City and region. The street functional classification system forms a network that works together to serve travel needs on a local and regional level. Roadways with a higher intended usage generally provide more efficient motor vehicle traffic movement (or mobility) through the City, while roadways with lower intended usage provide greater access for shorter trips to local destinations. The three classifications designated for the South End Concept Plan area, include Minor Arterial Street (South End Road), Collector Streets (Beutel Road-Parrish Road, Rose Road, and Deer Lane extension), and local streets (all other streets in the South End Concept Plan area).

As the major street through the area, South End Road connects residents, commuters, and visitors to downtown and the regional transportation system. It is designed in a manner to serve the through-travel demand, while still being viewed as an asset to the neighborhood rather than a barrier. Bicyclists are accommodated with an exclusive on-street bike facility that is physically separated from motor vehicle traffic with a parking lane and/or a buffer. Where on-street parking is allowed, the cycle track is located to the curb-side of the parking (in contrast to bike lanes). Those walking are accommodated with sidewalks buffered from the street with landscaping and/or street furnishings. Safe and comfortable pedestrian and bicycle crossings are provided where facilities cross South End Road.



*I would like
improvements of the
street design to be
simple, affordable, and
therefore doable.*

To the east and west of South End Road are networks of streets and shared-use paths providing on and off street connections to schools, parks, housing and shopping. Primary street connections to South End Road for those driving in the Concept Plan area are via Deer Lane-Madrone Drive, Beutel-Parrish Road, and Rose Road. These streets employ design techniques to create safe, slow streets without diminishing vehicle capacity, mitigating the impacts of the traffic on the adjacent housing and providing greater balance between safety and mobility.

Street Design Types

The street types in Oregon City require a balance between street functional classification, adjacent land use, designation and the competing travel needs by prioritizing various design elements. Overall, there are 10 different design types for Streets in the South End Concept area ranging from Mixed-Use Minor Arterial to Shared Local Street as illustrated in Figures 3a to 3j of Appendix C. The applicable design type for each street section can be seen in Figure 8.

Three street types designated for the South End Concept Plan area are:

- **Mixed-Use Streets** typically have a higher amount of pedestrian activity and are often on a transit route. These streets should emphasize a variety of travel choices such as pedestrian, bicycle and transit use to complement the development along the street. Since mixed-use streets typically serve pedestrian oriented land uses, walking receives the highest priority of all travel modes. They are designed with features such as wider sidewalks, traffic calming, pedestrian amenities, transit amenities, attractive landscaping, on- street parking, pedestrian crossing enhancements and bicycle lanes.

- **Residential Streets** are generally surrounded by residential uses, although various small shops may be embedded within the neighborhood. These streets often connect neighborhoods to local parks, schools and mixed-use areas. They are designed to emphasize walking, while still accommodating the needs of bicyclists and motor vehicles. A high priority is given to design elements such as traffic calming, landscaped buffers, green street treatments, walkways/ pathways/ trails, on-street parking and pedestrian safety enhancements.
- **Family Friendly Streets** to help encourage active transportation by providing comfortable, low-stress routes between neighborhoods and local parks, schools, and shopping areas. The network generally serves as a greenway that links parks, schools, jobs and other destinations in the City through a network of shared-use streets and off-street shared-use paths. These routes are considered walking and biking streets that are also used by motor vehicles for local access.

Local streets are modified to prioritize the through-movement of bicyclists and pedestrians while maintaining local access for automobiles. These routes include wayfinding signage and pavement markings, and commonly make use of traffic calming features that reduce motor vehicle speeds and discourage through traffic. Where these facilities cross major roadways, safe and comfortable pedestrian and bicycle crossings are provided. Further enhancements may include “green street” features such as bioswales and street trees, pervious concrete or asphalt, in addition to wider sidewalks and improved pedestrian amenities, such as benches and pedestrian-scale lighting.

- **Shared Streets** are roadways where bicyclists and motorists share the same travel lane. The most suitable roadways for shared bicycle use are those with low speeds (25 mph or less) and low traffic volumes (3,000 vehicles per day or fewer). These streets serve to provide continuity to other bicycle facilities (e.g. bicycle lanes) and should include shared lane markings. Common practice is to sign the route with standard Manual on Uniform Traffic Control Devices (MUTCD) green bicycle route signs with directional arrows. Shared roadways can also be signed with innovative signing that provides directional information in terms of bicycling minutes or distance (e.g., “South End Road, 3 minutes, ½ mile”).

Design Elements for Streets

To better represent and strengthen the rural character of the South End Concept Plan area, and to further enhance planned driving, walking and biking infrastructure, the City should implement the following design elements as appropriate:

- Permeable pavement
- Bioswales
- Stormwater planter boxes
- Green parking
- Traffic calming



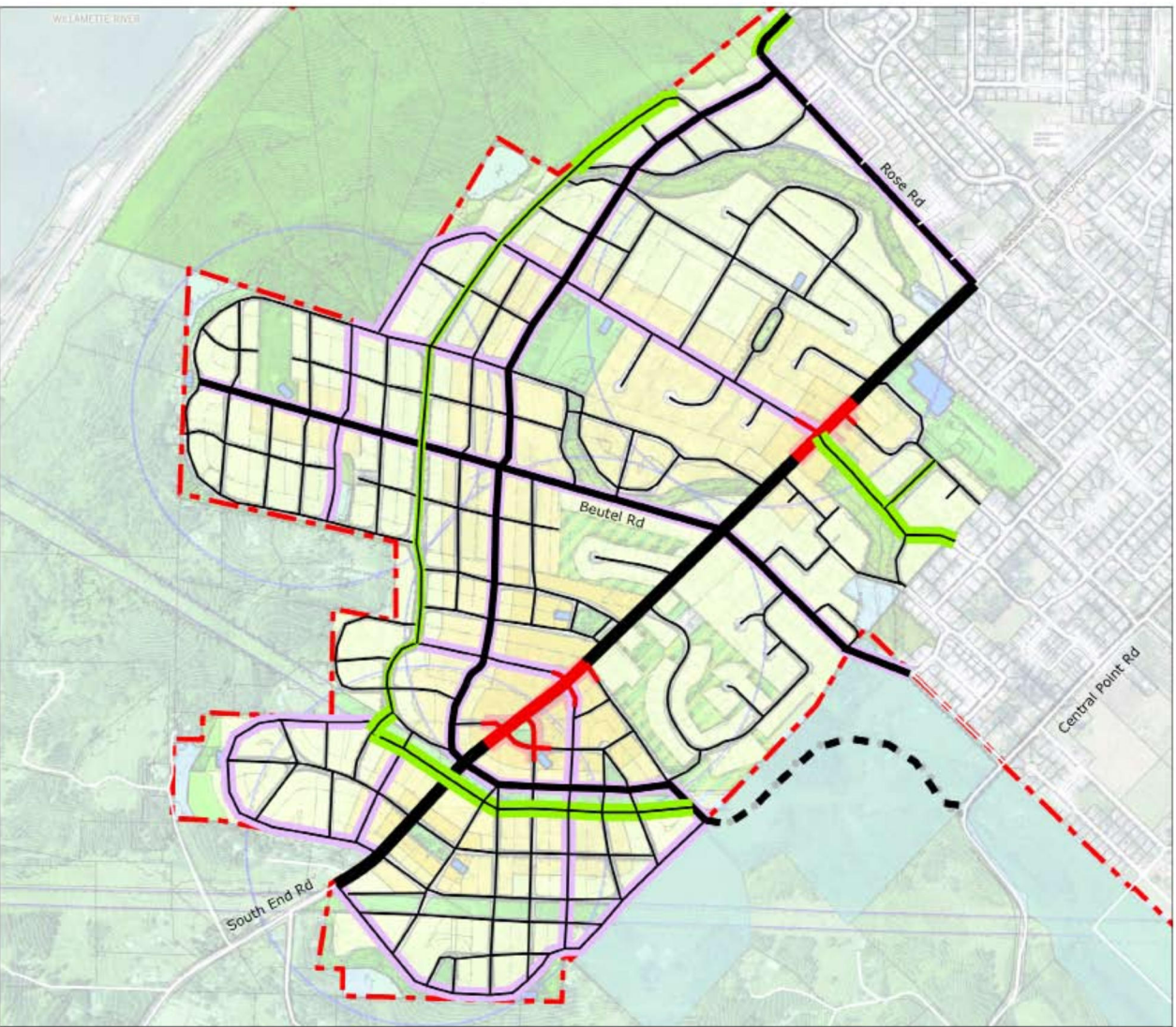
An example of permeable pavers



An example of a planter box adjacent to the sidewalk

Preserve open space, not just in parks, but in gardens and areas of working landscapes where small farming and woodlots provide more options to wildlife than just suburban housing.

Figure 8: Street Design Types



Walking and Biking

Residents of South End can travel safely and efficiently between destinations via any number of active transportation modes, such as walking, biking, or skating. A system of Family Friendly Routes, on-street sidewalks and bikeways, and shared use paths provides quality access to key destinations—improving the overall health and livability of the neighborhood. Both the trail and on-street pedestrian and bicycle network are context sensitive, addressing the rural character of South End, while also meeting the expressed community desire to have increased opportunities for walking and biking. Moreover, these networks are fully integrated with the existing trail and bikeway network and the planned active transportation projects in the Oregon City TSP. These measures help ensure that residents of South End can access goods and services without the need for an automobile within and outside of the South End area.

Proximity to the Canemah Bluffs Natural Area and potential for the development of many smaller neighborhood and larger community parks, are significant assets for the future of South End. A high quality network of low-stress pedestrian and bicycle facilities provides residents with better access to these scenic natural and recreational areas. Many streets in the South End area include large vegetated medians and/or buffers to help maintain a natural, rural feel to the street. In addition to serving a traffic calming function, these streets provide informal areas for social activity, recreation and play.

Those walking in South End are accommodated primarily through street-side sidewalks or pathways. On arterial and collector streets, sidewalks are installed on both sides of the roadway. Local streets are more flexible and could include pervious pavers or other surface types as a sidewalk or sidepath. Sidepaths maintain physical separation from motor vehicle traffic via split-rail fence and/or landscaped buffer and help to retain the rural character of South End. Off the main street system, a web of safe, comfortable walking and biking routes provides access between neighborhoods and local parks, schools, and shopping areas. This network serves as a de facto linear park system linking the Concept Plan area to other parts of the City through on-street bikeways and off-street shared-use paths.

For bicyclists, dedicated facilities vary based on roadway classification. On collector and arterial streets, where traffic speeds and volumes are higher, bicyclists are provided with physically separated facilities. However, the majority of streets in South End are local streets, with lower traffic speeds and volumes. Some of these streets accommodate pedestrians and bicyclists through their designation as Family Friendly Routes (Figure 8). The Family Friendly streets prioritize the through-movement of bicyclists with shared lane markings (SLMs) to demonstrate where bicyclists should operate on the roadway—outside the parking lane door zone. SLMs also alert motorists to expect bicyclists on the roadway. Bicyclist wayfinding signage highlights key destinations, such as parks and community centers, and the best routes on which to bike. These signs improve destination and route finding for residents and visitors alike, encouraging exploration and activity.





South End Road incorporates a protected on-street bikeway, or cycle track. The cycle track is an exclusive on-street bike facility that is physically separated from motor vehicle traffic with a parking lane and/or a painted buffer. Where on-street parking is allowed, the cycle track is located to the curb-side of the parking (in contrast to bike lanes). To improve visibility of the bicyclists, the cycle track drops to a buffered bike lane and on-street parking is prohibited 30 feet in advance of the cycle track termination when approaching intersections. The cycle track either remains curb-tight or bend-in towards the roadway with curb-extensions to improve visibility of the bicyclists at the intersections.

Pedestrians are accommodated with sidewalks buffered from the street with landscaping and/or street furnishings. Safe and comfortable pedestrian and bicycle crossings are placed where facilities cross South End Road.

We need more amenities like open spaces and trails but also some neighborhood retail/commercial so residents do not have to travel across town.



Example of a cycle track bending in towards the roadway and parking restrictions when approaching an intersection

Trails

Figure 9 also illustrates the potential active transportation network for South End. The emphasis of this network is on connecting residents to existing and future trails, as defined in the most recent Oregon City Transportation System Plan, as well as key destinations within and near to South End. Trail access also connects residents to important viewsheds in the South End area. The types of trails vary by context, from walking paths made of pervious paver walking paths to concrete shared use paths for pedestrians and bicyclists. Some streets also have a dedicated path through the wide landscaped median. User comfort on these trails is maximized due to the physical distance and separation from motor vehicle traffic.



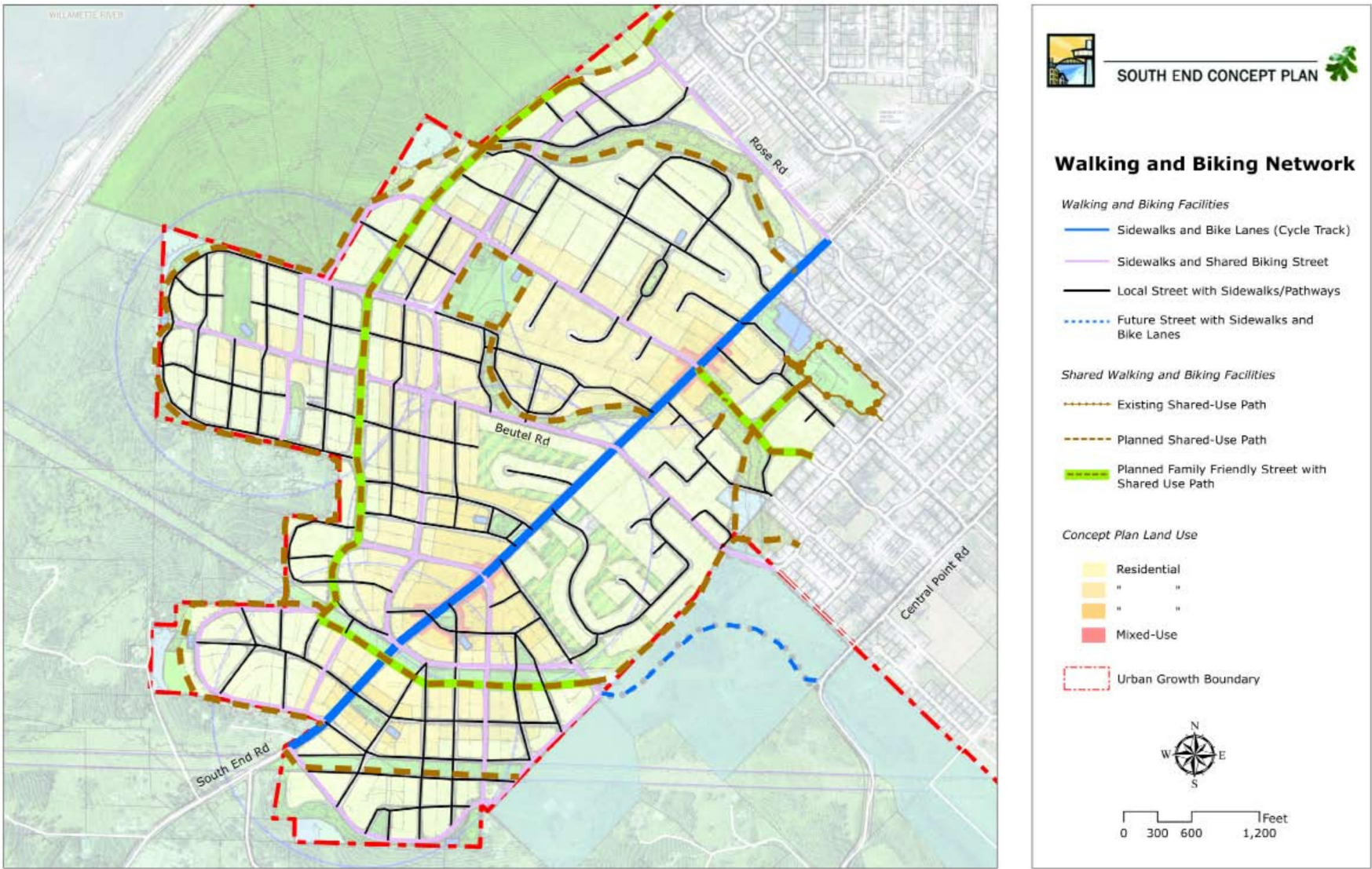


Figure 9: Walking and Biking Network



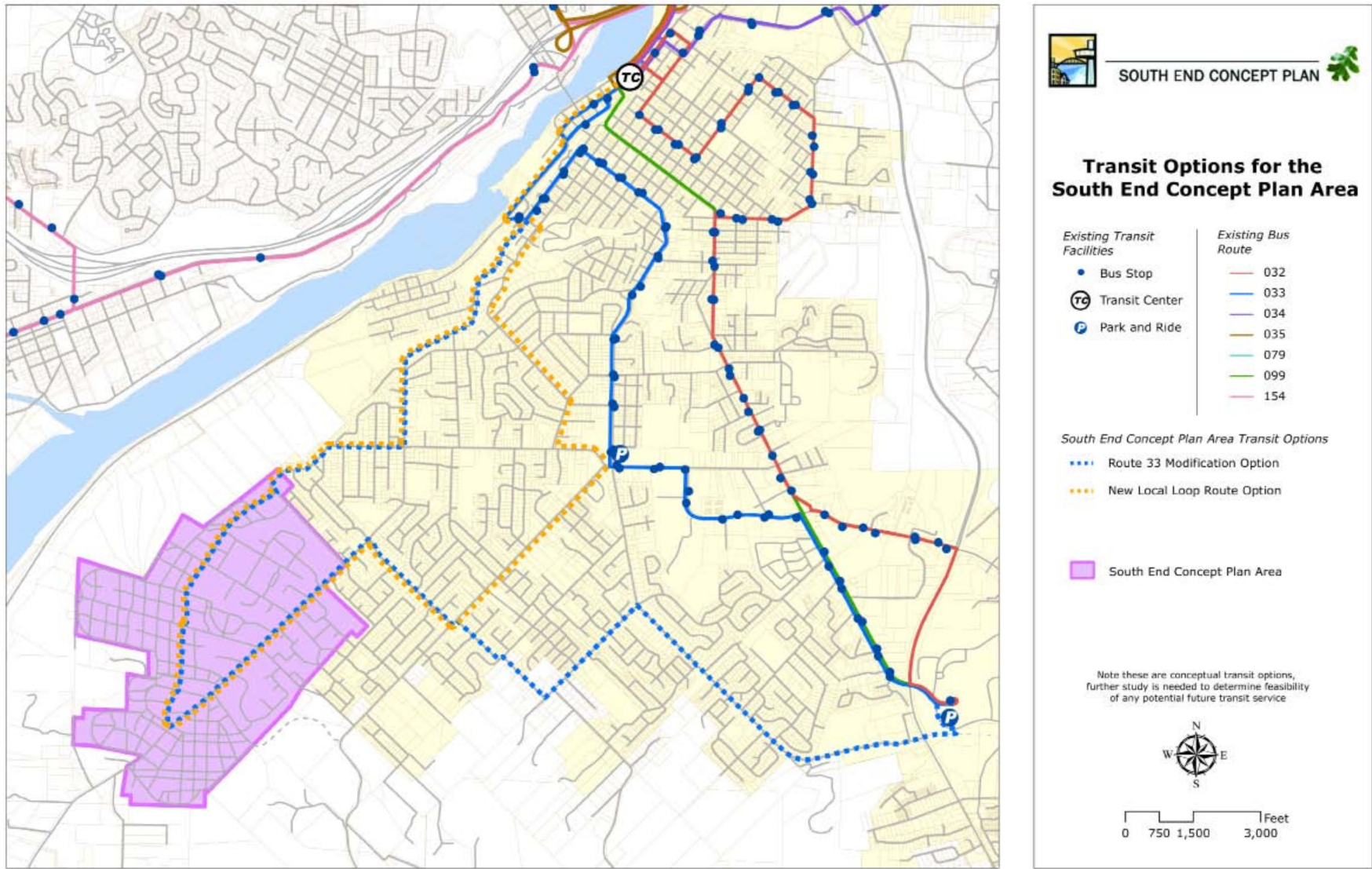
Reserve most of the area for open space, natural areas and parks. Densify the remaining areas and create a 15-minute community that emphasizes active transportation.

Transit

The Concept Plan sets the stage for the provision of transit, recognizing that the type and extent of service improvements will play out over time. The specifics of transit service will depend on the actual rate and type of development built, provider resources and policies, and, consideration of local options. Future redevelopment in the South End Concept Plan area may make transit a viable option in the future. As shown in Figure 10, two conceptual options for future transit include:

- A route modification to the existing TriMet bus service between the Oregon City Transit Center and Clackamas Community College (Route 33) that would extend the route from Clackamas Community College west down Meyers Road, then south down Leland Road, and west down McCord Road and Partlow Road to South End Road. At South End Road, the route would travel south to serve the South End Concept Plan area, before heading north again returning to the Oregon City Transit Center via the Deer Lane extension, Madrona Drive, Lawton Road and South End Road.
- New local loop route that connects to the Oregon City Transit Center and serves the South End Concept Plan area, and the residential areas along South End Road, Partlow Road, Central Point Road, Warner Parrott Road, Canemah Road, Telford Road, and Center Street not currently served by transit.
- A third option would be to work with another transit provider, such as Canby Area Transit. Canby Area Transit's Orange Line (99E) currently travels from the Canby Transit Center to the Oregon City Transit Center.

Figure 10: Transit Options for the South End Concept Plan Area



Public Infrastructure and Services

Water

The existing Oregon City water system is expanded to serve the entire South End Concept Plan area. Based on the 2002 UGB, stated and delineated within the 2012 City of Oregon City Water Distribution System Master Plan, all existing and proposed water mains, lines and services are incorporated under the ownership of Oregon City. Ownership of the Clackamas River Water (CRW) system is incorporated into Oregon City's water distribution system. CRW facilities may not be designed to handle urban levels of development and will need to be improved, expanded or replaced to continue to provide water service to corresponding customer areas. The existing CRW water system should be analyzed further to determine the need for replacement. The Master Plan forecasted sufficient water supply to accommodate build out in the South End Zone. However, the South End Concept Plan proposes development beyond what is shown in the Master Plan. Maximum Daily Demand (MDD) available pressure and available fire flow should be re-evaluated to account for the zoning densities shown on the current concept plan. As the annexation process occurs, the City will notify and work with CRW and its customers to assure transfer to the city water system transpires in a methodical way and rate payers are aware and informed of the process.



Distribution Improvements

The proposed water main system improvements are shown in Figure 11. Water main improvements consist of new water mains ranging from 8-inches to 12-inches, unless stated otherwise. Several connections are made to both the existing City of Oregon City water main and CRW main, located along South End Road. The most significant extension is the connection to the existing 12-inch main, located northwest of South End Road at the intersection of South Rose Road and South Deer Lane. A new 12-inch main runs southwest along the extents of the concept plan boundary. The 12-inch main connects back to South End Road within a street located southwest of the intersection of South Impala Lane and South End Road. Numerous 8-inch mains are constructed within the proposed street layout. The grid network created by this new system layout provides a looped distribution system, reducing the chances of pressure issues. All pipe size estimates are preliminary and should be revised with detailed flow modeling. The pipe sizes assume that the flow velocities are kept at or below 10 feet per second. Site specific studies should be performed as development occurs to test and confirm available fire flows and minimum pressures can be achieved, as outlined in the *2012 Water Master Plan, Table 4-1: City of Oregon City Planning and Design Criteria*.

Stormwater

The City Engineering Division is creating a new series of Low Impact Design (LID) standards. Therefore, a low impact stormwater approach is recommended for the planning area. Providing LID standards to the planning area limits the impact to existing and aging storm systems and reduces the infrastructure required to service the area. LID approaches mimic the natural hydrology of the catchment area. The approach manages stormwater within each basin, separating the basin into several smaller sub-basins. The stormwater within each basin can be managed utilizing the following categories: individual sites, streets and regional facilities. Figure 12 shows

where each of these approaches can be used in the South End Concept Plan. Site specific LID designs need to take the topography and soil conditions of the site into account. Specific site studies should be required to ensure that appropriate LID designs are implemented.

Individual sites include all residential areas (single family and multi-family), commercial and open spaces. Stormwater runoff is minimized by using less impervious surfaces wherever possible and integrating stormwater management facilities within the properties. Impervious areas are minimized by utilizing porous pavements (i.e. pervious concrete, and eco-roofs). Stormwater management facilities are incorporated into the landscape. For instance, a vegetated bioswale can be used in a parking lot in a landscape isle, while a small rain garden can be incorporated into a residential yard.

Runoff from roads and streets is managed utilizing 'green streets,' where possible. Green streets utilize landscape street-side planters or swales that capture and detain or infiltrate stormwater runoff. The soil and vegetation within the planter or swale filter pollution. They are designed to accommodate the traffic needs while providing a fully functional stormwater management system and landscaping. If the native soil does not allow for infiltration of the stormwater, a sub-surface detention system can decrease the size of a downstream stormwater facility. Green streets are also used to convey runoff rather than utilizing an underground conveyance system. Conceptual locations of regional stormwater ponds are shown in Figure 12 in the low spots of the basin, but can be relocated once site specific information is obtained. If a regional facility is proposed, further studies should be performed to confirm ultimate location, design, size, soil condition and over all site conditions and constraints. In addition, downstream analysis should be performed to analyze and mitigate impacts to the regional system. Potential alternate locations for regional stormwater facilities could be within power line corridors in coordination with the Portland General Electric and Bonneville Power Administration.

When soils or grading constrain the use of individual site management and green streets, a regional approach to stormwater management should be explored. Regional facilities should be located in low points within open spaces to manage large flows for both treatment and detention before releasing to a creek or river. Regional facilities are usually operated and maintained by the City.

Stormwater Conveyance

Two methods for stormwater conveyance both utilize gravity flow to either a creek or river or a regional stormwater facility. The first is surface conveyance consisting of street-side planter or swales and ditches. Surface conveyance contains ditch inlets and culverts. Some manholes may be required to link the systems together. Whenever possible, this should be the first approach to stormwater conveyance. A certain amount of treatment and retention occurs when stormwater is conveyed through a system that is vegetated.

The second is an underground system that includes many more catch basins and manholes than a surface conveyance system. Underground systems can be more



expensive to construct since they are conventionally three feet or more below ground. On busier streets such as South End Road, an underground conveyance system is likely more practical.

Sanitary Sewer

The three drainage basins in the study area require pump stations and gravity sewer lines. Each pump station pumps discharge a short distance to gravity lines from each basin that convey discharge to the intersection of South End Road and Beutel Road. A new pump station and force main pump the effluence to the South End Road Interceptor, located at the intersection of South end Road and Glacier Court. An alternate to pump the entire area to the Parrish Pump Station was analyzed but not favored because it would require improvements to increase the capacity of the Parrish Pump Station as well as the associated pressure mains.



Collection Improvements

Proposed sanitary sewer system improvements are shown in Figure 13 and are described in greater detail in Appendix D. Due to the existing municipal system and topography of the future serviced area, the conveyance options for the discharge of basins E6, E7 and X1, as outlined in the Sewer Master Plan are quite limited. Basin E6 is pumped north to Beutel Road where it discharges to a proposed gravity line, then flows southeast to the proposed pump station at the intersection of South End Road and South Parrish Road. Discharge from Basin E7 utilizes two pump stations located west of South Kelland Court and approximately 1,300 feet south of the intersection of South End Road and South Kelland Court. Both pumps within basin E7 utilize discharge to a proposed gravity line located along South End Road, where it intersects the UGB. The proposed gravity line flows northeast along South End Road to the proposed pump station at the intersection of South End Road and South Parrish Road. Future developments within Basin X1 could be routed to the proposed pump station at the intersection of South End Road and South Parrish Road, utilizing the proposed gravity lines along Beutel Road and South End Road. The proposed pump station at the intersection of South End Road and South Parrish Road pumps the discharge from basins E6, E7 and X1 through a proposed forcemain along South End Road northeast to the existing gravity line at the intersection of South End Road and South Glacier Court.

Routing basins E6, E7 and X1 to the existing Parrish Road Pump Station would require upsizing the existing gravity lines, constructing a parallel force main along the existing force main and would leave a spare capacity to serve only an additional 375 people. Additional service would require upsizing the pump station or routing discharge directly to the South End Road Interceptor. Basin E7 will be serviced by two pump stations, due to its topography. The proposed pump station at the intersection of South End Road and South Parrish Road will accommodate the peak flow of all three basins. Sizing of the proposed pump stations is based on the buildout peak flow for the average density for the UGB expansion area. Further flow monitoring is recommended to verify previous Inflow/Infiltration assumptions for basins E6, E7 and X1.

The above are preliminary recommendations and it is recommended that the Sewer Master Plan be updated to analyze the South End Concept Plan Area. Locations of proposed pump stations and sewer lines are preliminary and can be relocated based on further studies and site specific information.

Figure 11. Proposed Water System Improvements

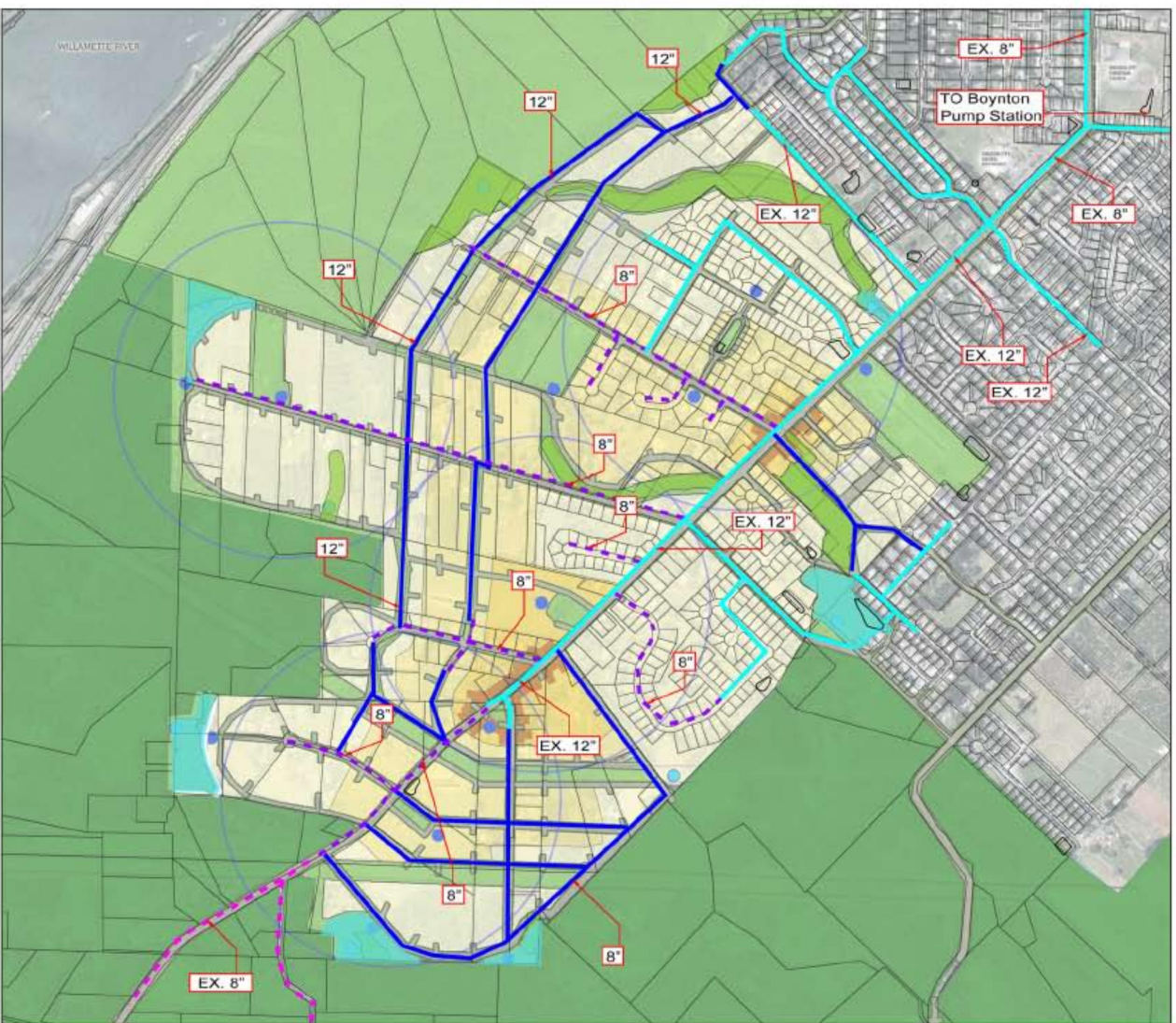
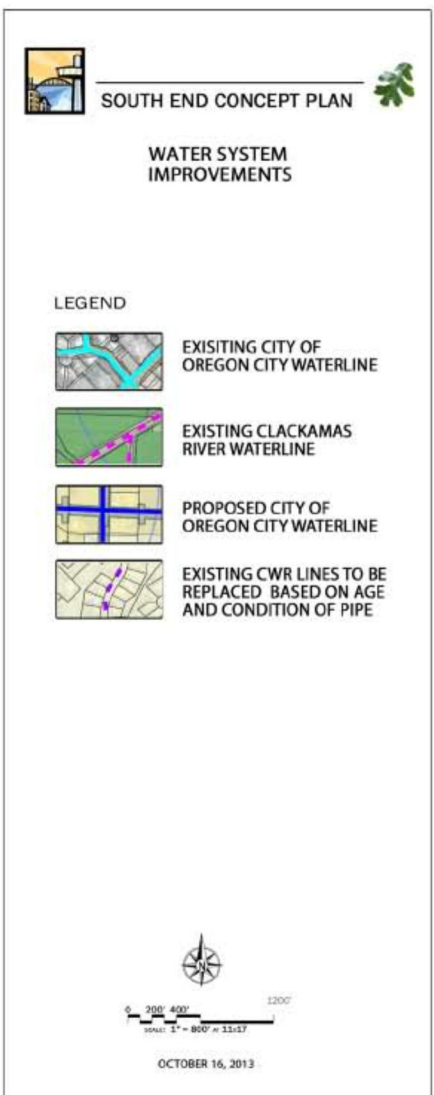


Figure 12. Proposed Stormwater Improvements

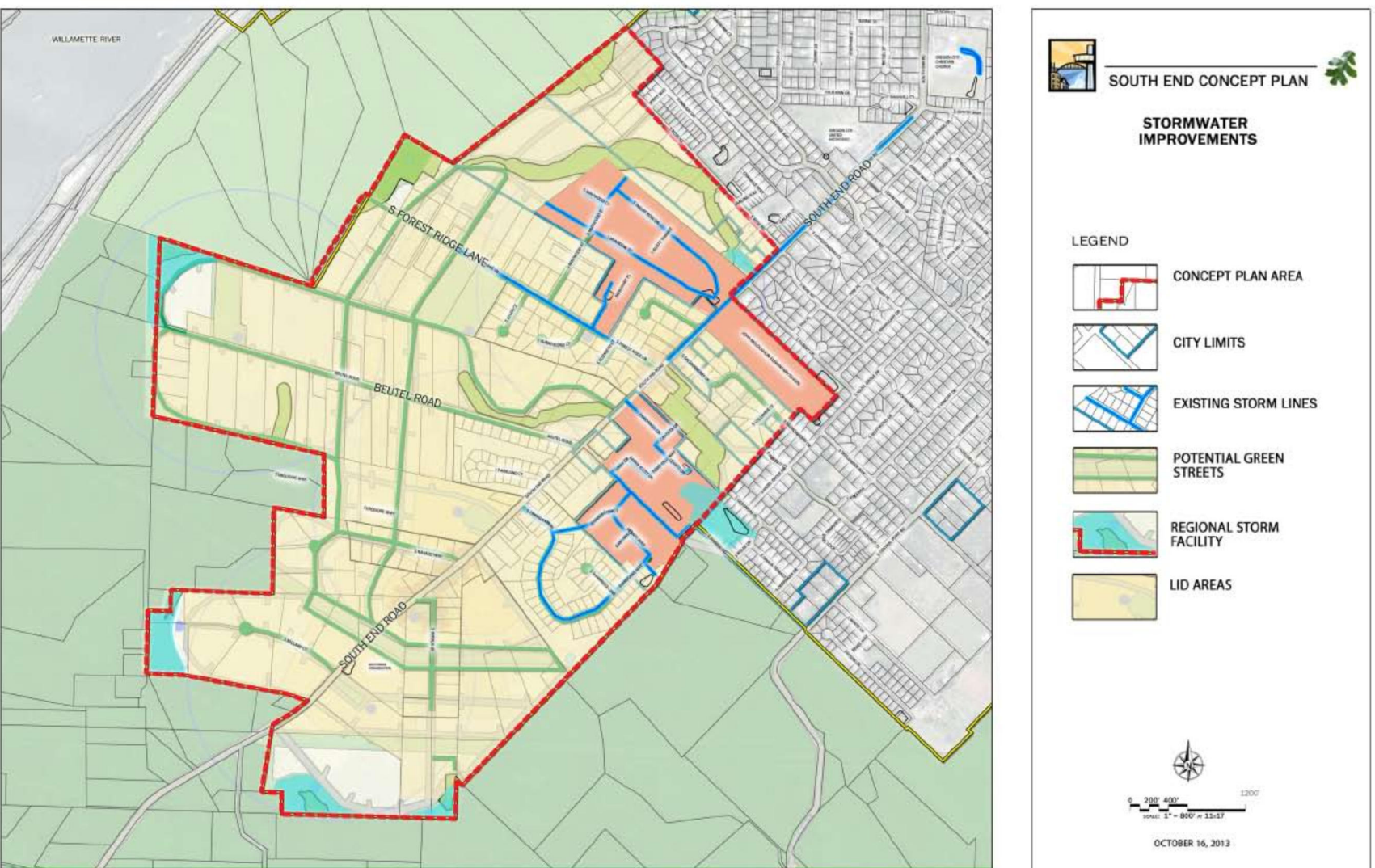
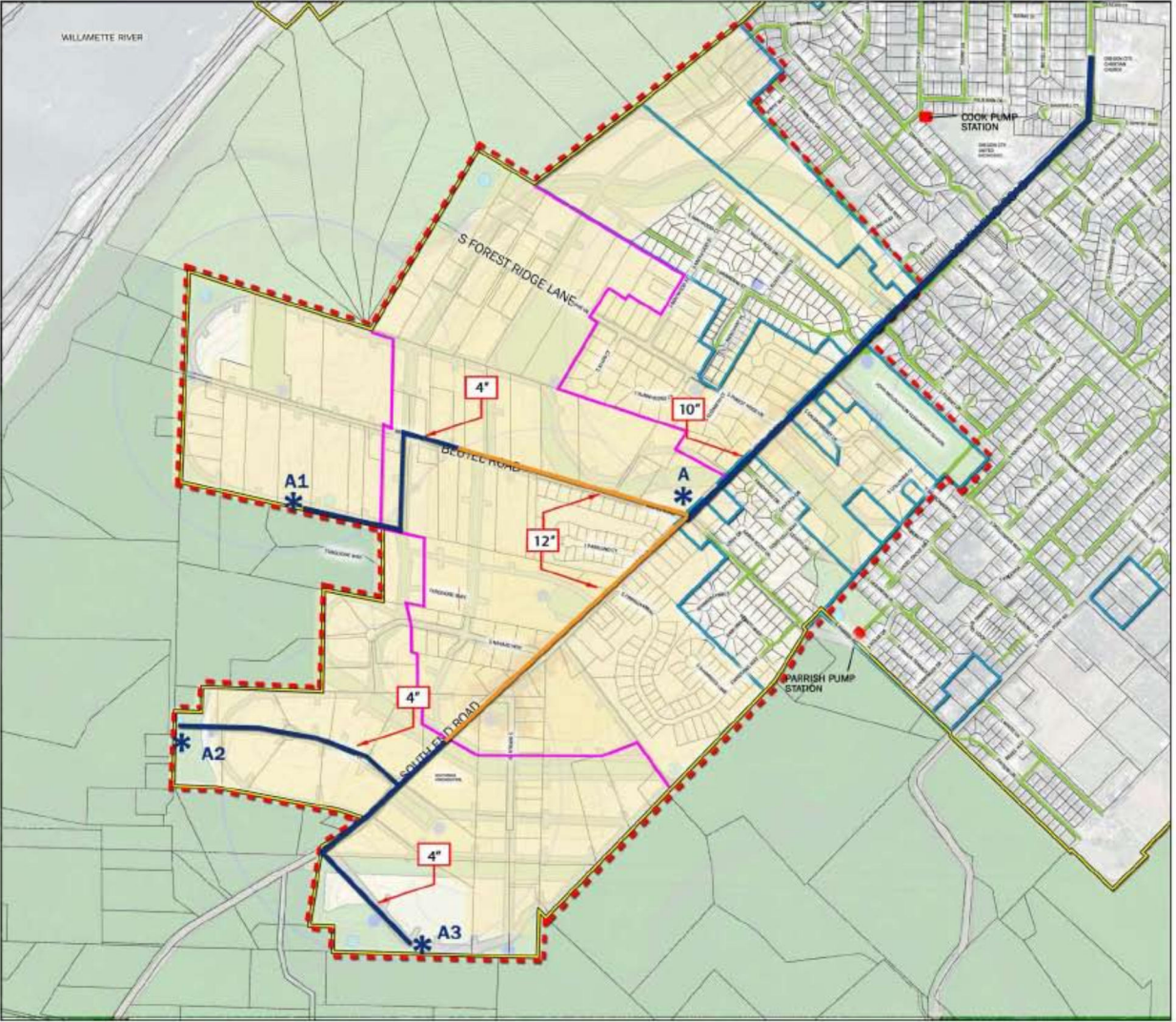
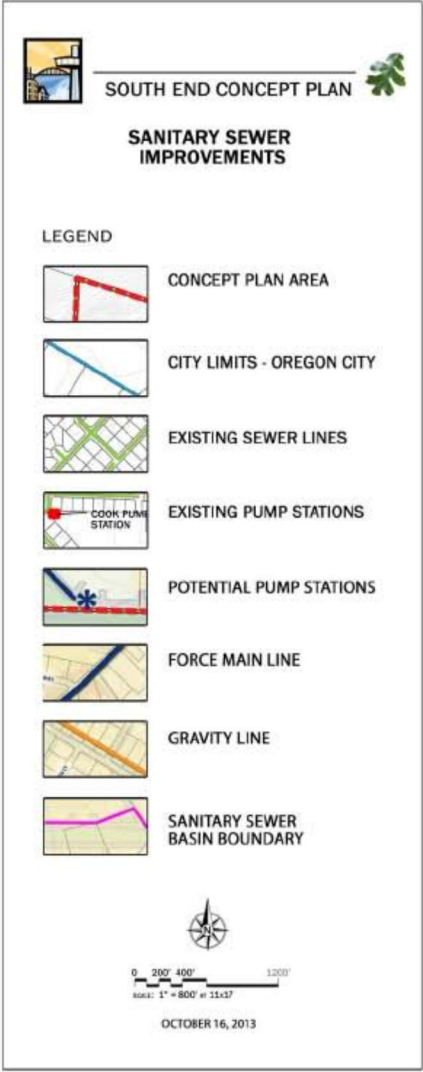


Figure 13. Proposed Sanitary Sewer Improvements



Public Services (Police, Fire)

Upon annexation, responsibility for providing police services to new City properties is transferred from the Clackamas County Sheriff's Department to the Oregon City Police Department. The Police Department workforce consists of approximately 1.3 officers per 1,000 residents. Therefore, the Police Department will need an additional six to nine officers to maintain that rate at buildout of the South End area. Transfer of service from Clackamas County to Oregon City will result in an increased police presence and decreased response times. Clackamas County Fire District #1 continues to provide fire protection services to the South End area from Fire Station 17, located 0.2 miles to the north on South End Road. (Additional information from CCFD#1 pending.)

Extend sidewalks further down South End Road for kids to safely walk to the elementary school.

Schools

The Oregon City School District indicates John McLoughlin Elementary School, located within the South End Plan area, currently enrolls 560 students and can accommodate 30 more for a total capacity of 590 students. If future enrollment exceeds the capacity at McLoughlin Elementary, the School District plans to re-open King Elementary School, located less than one mile north on South End Road. King Elementary provides an initial capacity of 400 students with a plan to add capacity if necessary.

The nearest middle and high schools are Gardiner Middle School and Oregon City High School, two and four miles away respectively. Current enrollment at Gardiner is 777 students for grades 6-8. Total capacity for the school is 930 students. Ogden Middle School has a capacity for 960 6-8 students. Oregon City High School has a capacity of 2,510 students based on an average of 25 students per classroom. Maximum capacity is 2,800 with current enrollment at slightly more than 2,300 students.

Based on the methodology used by the School District and Portland State University's Population Research Center, development in the study area at buildout will result in the addition of approximately 988 students: 456 elementary school, 228 middle school and 304 high school students. These increases in enrollment are expected to occur gradually over the next thirty or more years, depending on the pace of annexation and development in the planning area. Moreover, future enrollment for these elementary schools is projected to remain relatively flat, as new households in their service area are projected to include fewer young children. Therefore, No new school sites are identified in the South End Concept Plan. The City and School District will continue to coordinate as the South End area develops.



IMPLEMENTATION

Title 11 of Metro's *Urban Growth Management Functional Plan*, "Planning for New Urban Areas," governs growth within the region. The Functional Plan requires changes to city and county comprehensive plans and associated ordinances to implement regional goals and objectives for bringing needed land into the regional UGB. It "calls for long-range planning to ensure that areas brought into the UGB are urbanized efficiently and become or contribute to mixed-use, walkable, transit-friendly communities." Concept plans set the framework for governing jurisdictions' eventual adoption of comprehensive plan policies and implementing ordinances for these additional lands.

*Extend sidewalks further
down South End Road
for kids to safely walk to
the elementary school.*

The Concept Plan is adopted as an amendment to the City's Comprehensive Plan and its documents.

In Oregon City, the South End Concept Plan guides the orderly and efficient conversion of land in the South End area from rural to urban uses. The Plan consists of the following elements in accordance with Metro title 11:

- Annexation
- Housing (density, diversity, and affordability)
- Transportation
- Natural resources
- Public facilities
- Public schools
- Parks and trails
- Funding and Finance Sources
- Overall urban growth diagram
- Agency Coordination

To facilitate implementation of the South End Concept Plan, the following goals, policies and strategies have been developed by a team of staff, consultants and citizen advisors for consideration for adoption by reference into the City's Comprehensive Plan. Appendix H includes a more detailed descriptions of specific revisions to the Oregon City Municipal Code.

South End Concept Plan

Goal

The orderly and efficient conversion of the South End area from rural to urban land uses as guided by the South End Concept Plan.

Policies

- Ensure that annexation of land within the planning area is consistent with other goals, policies and strategies in the Concept Plan.

Implementation Strategies

Review annexations proposals for adherence to the vision, values, goals and policies identified in the Concept Plan, including adequacy of existing and planned services.



Subdivisions

Goal

Development takes place in a manner that results in a cohesive South End community.

Policies

- Create an interconnected local street network through incremental subdivision of land.

Implementation Strategies

- Incentivize larger subdivisions through changes to the City's fee structure or other means.
- "Stub" new streets to adjacent parcels so that future development can complete the connections.
- Whenever possible, locate streets in the midline of long parcels or straddling property lines.
- Create a "T" street at the back end of long parcels so that a new east/west street network can be established.



Housing

Goal

A diversity of housing types and densities that meets the needs of households with a range of incomes.

Policies

- Zone land to allow for a mix of single family, multi-family and neighborhood commercial/mixed use designations, including those typically more affordable to households with low and moderate incomes.
- Incorporate an "urban-to-rural transect" approach, where more "urban" conditions are closer to the center of the community, while more rural conditions are located at the more natural edges.
- Design housing to enhance the quality of the streetscape experience and promote neighborly interaction and local surveillance of the streets.
- Require the inclusion of private outdoor space on each lot, primarily in the rear or side of the houses.
- Require landscaped features along the edges of private lots to help maintain rural character.

Implementation Strategies

- Adopt the South End urban growth diagram found on page 43 of the Concept Plan.
- Create flexibility in development standards to allow for cluster housing, accessory dwelling units and other alternative housing types.
- Encourage architectural elements to present lively building frontages to the street.
- Create a Frontage Zone between the sidewalk and primary building façade to accommodate street-facing elements.



If more neighborhoods are developed, we will need more community park spaces.

I would like to see additional retail services. It's walkable in neighborhoods, but not to anything.



- Require entry floor levels be raised as in proportion to its proximity to the sidewalk. The closer the house is to the sidewalk, the higher the entry floor level should be raised.
- When rear alleys are present, limit garage setbacks and require additional parking be located beside the garage.
- Encourage the use of detached garages.
- Recommend urban and rural "edge types," such as low fences, hedges and walls, for placement around residential lots.

Neighborhood Retail

Goal

Small clusters of retail stores and businesses within a ten minute walk of most homes provide essential services and community meeting places.

Policies

- Create an active retail environment and streetscape experience along South End Road within the Neighborhood Commercial (NC) zone.
- Encourage neighborhood retail that serves local and area customers.
- Provide for meeting places and opportunities for social gathering.

Implementation Strategies

- Consider limiting allowed NC uses along South End Road at Forest Ridge Lane and Navajo Way in accordance with community vision and values.
- Require retail on the first floor of any development in the NC zone within 200 feet of the intersections of South End Road and Forest Ridge Road and Navajo Lane.
- Provide on-street parking for easy and convenient access and visibility to shop front.
- Locate retail on both sides of South End Road in order to provide a "main street" retail format.
- Require on-street parking with additional on-site parking in the rear of building accessed by alleys.
- Create a Frontage Zone between the sidewalk and primary building façade to accommodate street-facing elements.
- Site retail buildings within 0' to 10' of the South End Road right-of-way.
- Encourage retail buildings that have a more distinct storefront retail character.

Transportation

Goal

A connected transportation system that provides a variety of travel options, allowing people to move safely within the community and to other parts of the city and region.

Policies

- Use a complete road network to promote connectivity and increase travel options.
- Create a safe, friendly environment for walkers and cyclists.

Implementation Strategies

- Identify updates to City, County and regional transportation plans to incorporate proposed improvements to major facilities.
- Include proposed transportation improvements in the City's Capital Improvement Plan (CIP).
- Apply appropriate road standards as development occurs and facilities are designed and constructed.
- Coordinate with Clackamas County in planning for improvements to county facilities.
- Reference the multi-modal street system plan and specify that the City's planned level of service on all public streets includes planned connections as identified in the Concept Plan.
- Optimize the number of new street connections to South End Road to slow traffic speeds on South End and increase access to neighborhood retail.
- Use roundabouts to safely accommodate through-traffic at major intersections.
- Encourage rear alleyways to provide additional connectivity for cyclists and pedestrians and break up overly-long blocks.
- Review and refine the municipal code to resolve potential conflicts between sidewalk, street and accessway design codes and the South End Concept Plan (e.g., walking thoroughway, cycle track, accessways).
- Use more urban and hardscape elements (e.g., curbs and gutters) closer to the neighborhood center, and more rural and natural characteristics (e.g. gravel and bioswales) in the residential and outer edge zones.



My dream park, if I were a kid, would be one that has a covered playground. The area would be dry all year and cool during those hot summer afternoons.

Parks and Natural Resources

Goal

Streams, trees, wetlands and wildlife habitat are protected and enhanced through a network of natural areas.

Policies

- Preserve contiguous wetland areas, natural spaces and wildlife corridors.
- Improve access to natural areas and views.

Implementation Strategies

- Apply the Natural Resource Overlay District (NROD) to the two potentially jurisdictional wetlands and waters of the State/United States within the Plan area upon annexation, recognizing that development applications will be required to submit site specific delineations for these features to confirm their exact location.
- Adopt a habitat conservation plan (HCP) that identifies and describes habitat areas and prescribes voluntary measures to protect and preserve those resources.
- Protect Canemah Bluff extensions (OS1 and OS2) by identifying them on an official inventory map or adopt the Concept Plan by reference as an official inventory.
- Amend the Oregon City Parks, Open Space and Trails Master Plans to preserve views provided by trails within or adjacent to natural resources.



Public facilities

Goal

Public water, wastewater and stormwater services meet the needs of current and future residences, businesses and institutions.

Policies

- Construct new water and sewer infrastructure with roads to meet community needs.
- Treat stormwater with retention ponds and swales along natural features at edges of plan area.

Implementation Strategies

- Develop and implement Low Impact Design (LID) standards in South End.
- Re-evaluate Maximum Daily Demand (MDD) for water and available fire flow to account for the zoning densities shown on the current concept plan.

Parks and Trails

Goal

Parks, plazas and other public gathering places strengthen the sense of community and connectedness.

Policies

- Provide a network of new parks, open spaces and gathering places, including a facility sufficient for ball fields and other recreational opportunities.
- Incorporate trail connections to parks, neighborhood amenities and the regional trails system.
- Use utility corridors for new trail opportunities.
- Incorporate civic uses in various parks and public spaces.

Implementation Strategies

- Update City the Oregon City Park and Recreation Master Plan to include all South End Concept Plan parks so that their costs are adequately factored into the Capital Improvement Program and System Development Charge charges.
- Require subdivision applicants to review the South End Concept Plan and identify the location of future parks, open spaces and trails on their preliminary plat.

Planning and Development Process

Once this Concept Plan is adopted, the development process can begin. The actual process of development is driven by willing property owners and sellers. Oregon City annexations are subject to a vote of approval by city residents following approval by the City Commission pursuant to the City Charter. This process includes multiple elements: an application for annexation, annexation vote by the voters of Oregon City, application of an Oregon City zoning designation and the development review process (land division and site planning). Each element is a separate process subject to review and approval with the opportunity for public comment through at the Planning Commission and City Commission.

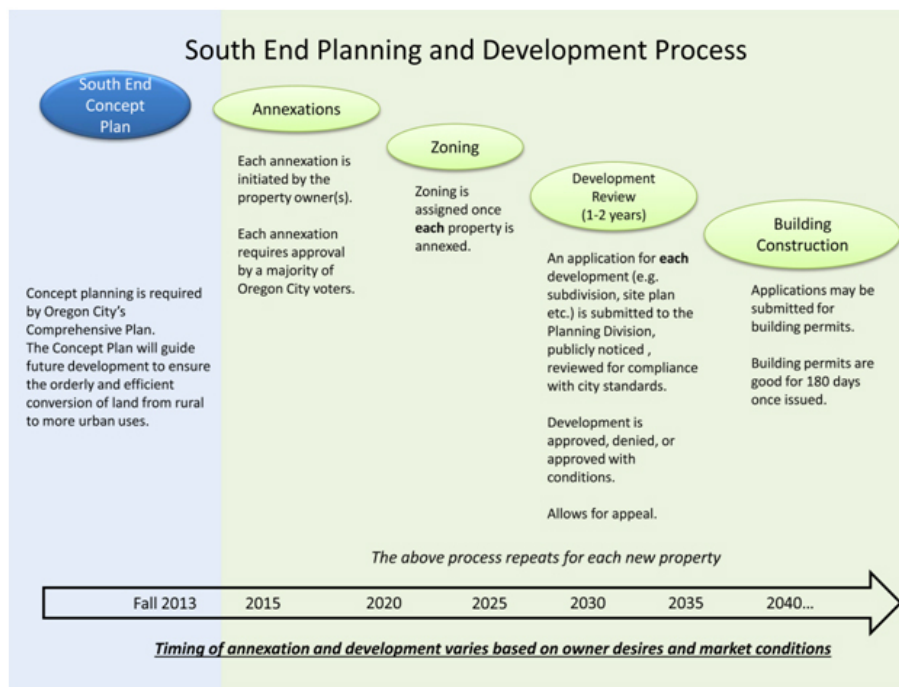
*We need some small
community play grounds
or green spaces to keep
nature in our lives.*



The timing and location of improvements required through the development process is difficult to predict since it depends on individual private owners interest in annexing and developing their property. The Concept Plan serves as a guide for these improvements if and when they occur. Figure 14 illustrates shows how these processes relate to one another.

Annexation of any portion of any portion of South End will be dependent upon the availability, capacity and status of existing water, wastewater, drainage, transportation, park and school facilities; increased demand for such facilities to be generated by the proposed development; additional facilities required to meet the increased demand and the method and source of financing required to provide additional facilities. Areas adjacent to existing city boundaries, facilities, and services are likely to be annexed first.

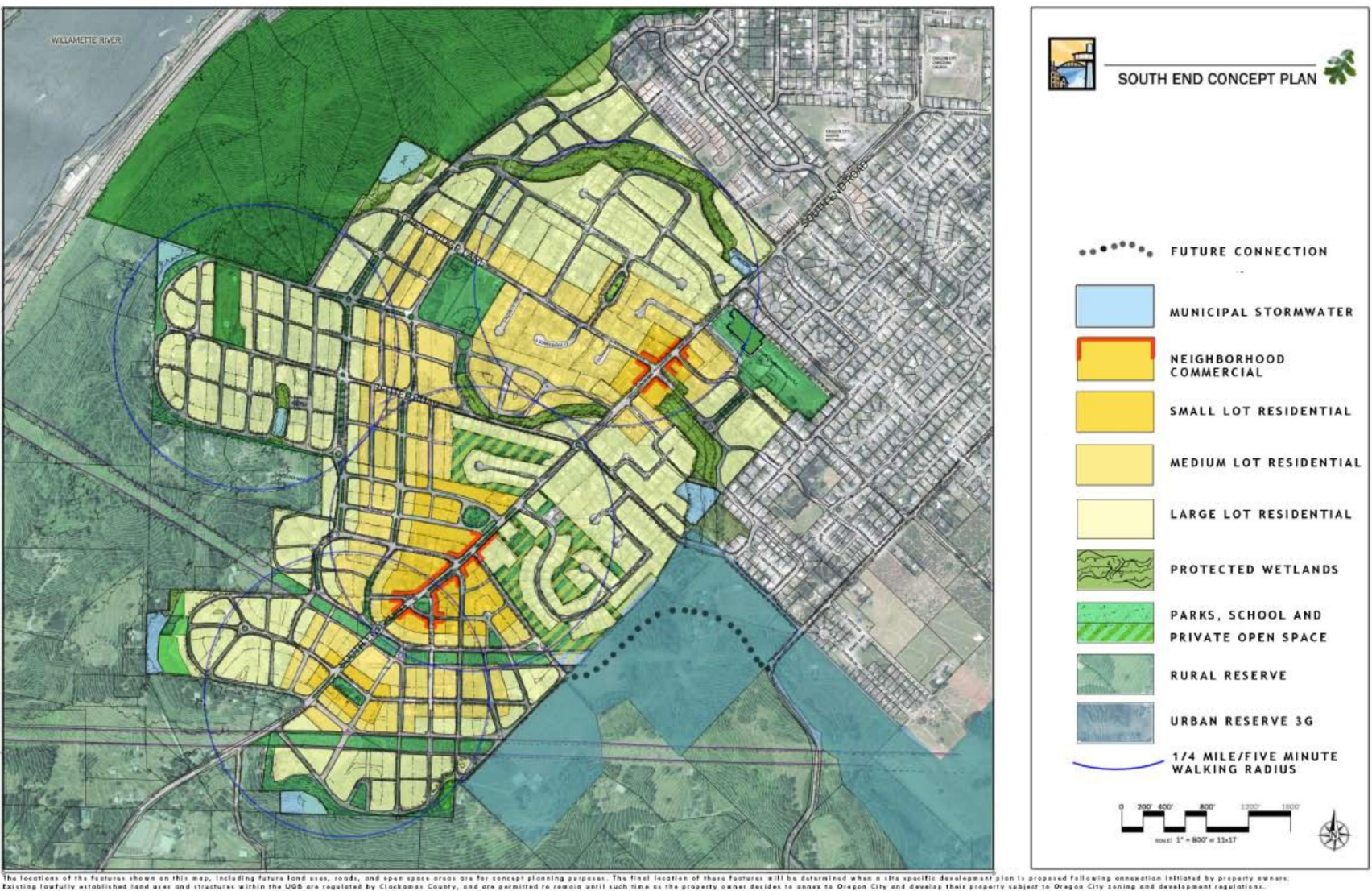
Figure 14. Planning and Development Process



I support well planned unit development that mixes housing types in a more natural, less traditional way. For instance, a small senior housing facility which includes some single family residences, some townhomes, a recreation center and possibly some neighboring small farm use.

The official urban growth diagram is on page 11 of the Concept Plan. The Proposed Implementation Map in Figure 15 illustrates one scenario in which the South End area could develop in accordance with the Concept Plan. The locations of the features shown on this map, including future land uses, roads and open areas are for concept planning purposes. The final location of these features will be determined when a site specific development plan is proposed following annexation initiated by property owners. Existing lawfully established land uses and structures within the UGB are regulated by Clackamas County and are permitted to remain until such time as the property owners decides to annex to Oregon City and develop their property subject to Oregon City zoning and development regulations.

Figure 15. Proposed Implementation Map



FUNDING AND FINANCE

This section addresses funding considerations for the Concept Plan including identification of major infrastructure capital improvement costs and funding options. Potential implementation action strategies are also identified.

Provision of Urban Services

The South End Concept Plan will serve as a framework for delivering urban services and public facilities and guiding private development. Developers will generally be responsible for dedicating required public facility right-of-way easements and providing local streets and utility connections to trunk line systems. Hence, this funding strategy focuses primarily on collector and arterial roadway improvements, and water and sewer trunk lines, and storm water collection systems, and parks/trails, which will require significant levels of public investment.

A combination of existing and potential new funding sources will be required to ensure that the South End area is developed over time in a manner that is fiscally sustainable and consistent with the objectives set forth in the Concept Plan. The primary service providers that are identified for the South End Concept Plan area are listed in Table 4. The Existing Conditions report, located in Appendix A of the Concept Plan, includes a more detailed discussion of each service provider.

Table 4. Primary Service Providers

Public Facility/Service	Primary Service Providers After Annexation
Annexation & General Government Administration	Oregon City, with voter-approval
Land Use	Oregon City
Transportation	Oregon City, Clackamas County, ODOT, TriMet
Stormwater and Natural Resources	Oregon City
Water	Oregon City and Clackamas River Water
Sanitary Sewer	Oregon City, Tri-City Service District
Schools	Oregon City School District
Energy/Power	Portland General Electric
Police Services	Oregon City
Fire and Emergency Services	Clackamas County Fire District #1

Public Facility Capital Costs

Total capital costs for major roads, sewer, water, stormwater and parks/trails systems have been estimated for build-out of the South End area and are summarized in this section. A more detailed description of these costs is provided in Appendices C, F and G. Unit costs were prepared based on local and regional experience with a variety of capital projects. The preliminary capital cost estimates do not include extraordinary cost for right-of-way acquisition, permitting or geotechnical soils work. Such extraordinary costs may include special environmental mitigation, subsurface soil enhancements, structural engineering systems, and business/residential relocation assistance.

In addition to water and sewer trunk line improvements, the Concept Plan envisions the South End area to be developed with new public parks/trails and storm water improvements needed to serve planned development in the area. The transportation elements assume “Family Friendly Collector” design standards for a segment of Madrona Drive and “Mixed Use Minor Arterial” design standards for segments of South End Road, along with several pedestrian-oriented intersections. As defined in the City’s Transportation System Plan, Family Friendly Collector streets consist of multiple travel lanes with landscaped buffer strips, on-street parking, and wide paths for bicycles and pedestrians.

The total estimated capital cost for the major public facility improvements needed in the South End Area is shown in Table 5. While these costs are stated in 2013 dollars, the improvements are expected to be phased over 20-30 years, depending upon market conditions for development and the availability of funds.

Table 5. Capital Infrastructure Costs for South End Concept Plan Area

Public Facility System	Capital Cost	Primary Funding Area	Likely Funding Sources ⁵
Transportation (collectors, arterials, traffic signals)¹	\$20,235,000		
South End Road Improvements	\$ 3,870,000	City/County	SDCs, Grants, LIDs, Street Utility rates, Developer Financing, Road Fund
Other Collectors & Arterials	\$16,365,000	South End	
Parks & Trails²	\$19,334,190		
Shared-Use Paths	\$6,045,375	South End	SDCs, Grants, General Fund, Local Parks
Family-Friendly Street Pathways	\$2,193,815	South End	Utility Rates, Developer Dedications, Public/Private Partnerships, Voter-approved GO Bond
Community Park with Community Center	\$7,500,000	City/South End	
Village Center Park	\$1,450,000	South End	
Neighborhood Park	\$765,000	South End	
PGE/BPA Corridor Greenway Trail	\$1,380,000	City/South End	Agency partnerships
Water (mainline system)³	\$5,156,600	South End	SDCs, Connection Charges, Utility rates, Developers
Sanitary Sewer (trunk system)³	\$4,056,800		SDCs, Connection Charges, Utility rates, Developers
Stormwater System³	\$21,164,950		
Stormwater collection	\$ 3,126,000	South End	SDCs, Connection Charges, Utility rates, Developers;
Green streets	\$11,343,950	South End	Regional Mitigation Bank
Regional Ponds	\$ 6,695,000	City/Drainage Basin	
Subtotal	\$ 69,947,540		
Other (planning/legal/admin.) ⁴	\$2,798,000	South End	General Fund, Planning fees, Grants
Total	\$72,745,540		

¹ Derived from Table 3 of South End Concept Plan—Transportation Element Memorandum from DKS dated August 7, 2013.

² Based on preliminary conceptual cost estimates by Alta.

³ Based on preliminary cost estimates by 3J Consulting.

⁴ Preliminary estimate based on 4% of capital cost requirements.

⁵ These existing funding sources may be supplemented with new funding mechanisms, such as urban renewal districts or parks utility fees; to be determined during preparation of the Public Facility Plan for the South End Area.

It is important to note that certain major investments, such as improvements to South End Road, are major investments (e.g. \$3,870,000) that would likely require some level of investment over the next 20 years even if the South End Concept Plan area was not fully developed. Table 6 shows how a preliminary allocation of general funding responsibilities can be based upon the area of benefit.

Table 6. Estimated Capital Costs by Area of Benefit

	South End Public Facilities (Low-end cost)	Other City/County Facilities	Total Cost (High-end cost)
Transportation	\$16,365,000	\$3,870,000	\$20,235,000
Parks & Trails	\$10,454,190	\$8,880,000	\$19,334,190
Water (mainline system)	\$5,156,600		\$5,156,600
Sanitary Sewer System	\$4,056,800		\$4,056,800
Stormwater System			
Stormwater Collection	\$3,126,000		\$3,126,000
Green Street Enhancements	\$11,343,950		\$11,343,950
Regional Ponds		\$6,695,000	\$6,695,000
Subtotal	\$50,502,540	\$19,445,000	\$69,947,540
Other (administration)	\$2,020,102	\$777,800	\$2,797,902
Total	\$52,522,642	\$20,222,800	\$72,745,442
Equivalent Residential Units (ERUs)	2,447		
Cost Per ERU	\$21,464		

Source: derived from preceding analysis; with preliminary Equivalent Residential Unit (ERU) estimates.

Funding Strategies: Existing and Potential Sources

As with most successful large urbanizing areas with multiple property owners, the South End Area is expected to be developed incrementally over time with a mix of public and private funding and financing sources.

Existing Funding Sources

It will be important for the City to utilize full capital-cost and operating-cost recovery methods to avoid unsustainable fiscal impacts to the City's General Fund. Hence, existing funding sources, including local System Development Charges (SDCs), utility fees, and connection charges and rates (and capital improvement programs) need to be updated prior to annexation and development.

The existing local SDCs that currently apply to the South End area (after annexation) would generate significant amounts of funding that would be used to pay for adequate public facilities over time. The level of funding generated by SDCs (upon build-out of the South End Concept Plan area) is summarized in Table 7.



Table 7. Schedule of SDC Charges and Revenues before Credits, Oregon City South End

	SDC per ERU	Gross Revenue (before credits)
Transportation	\$7,833.90	\$19,169,561
Vehicles	\$7,616	\$18,635,766
Bicycles and pedestrians	\$218	\$533,795
Sanitary sewer	\$3,864	\$9,456,139
Oregon City	\$1,844	\$4,513,199
Tri-City Sanitary District	\$2,020	\$4,942,940
Stormwater	\$701	\$1,714,429
Oregon City Charge on New Development	\$701	
Water	\$4,840	\$11,843,292
Oregon City	\$3,374	\$8,256,634
South Fork Water Board	\$1,466	\$3,586,658
Parks	\$3,543	\$8,669,154
Oregon City	\$3,543	\$8,669,154
Total SDC and Agency Summary	\$20,782	\$50,852,575
Oregon City	\$17,296	\$42,322,977
South Fork Water Board	\$1,466	\$3,586,658
Tri-City Sanitary District	\$2,020	\$4,942,940

Source: derived from Oregon City SDC calculator; analysis by FCS GROUP, based on 2,447 equivalent residential units added in the South End area.

To illustrate the level of potential funding “gaps” for major infrastructure improvements in the South End area, an analysis comparing the required level of capital investment to the potential amount of SDC revenues collected assuming the existing regime of SDCs per unit of development, and a range in capital costs from low (reflects improvements that primarily serve the South End area) to high (reflects total capital costs) is summarized in Table 8 and based on the mid-point level of development that is anticipated to occur over the next 20 years, which assumes 2,447 ERUs.²

The results of the status quo funding analysis generally indicates that the City may need to consider additional funding sources to help cover the capital costs of transportation, parks and trails, and stormwater systems that are required to accommodate new development in the South End area. The facilities with the greatest funding challenge include:

- Transportation: funding gap of \$1.87 million
- Parks and Trails: funding gap of \$2.2 to \$11.4 million
- Stormwater System: funding gap of \$13.3 to \$20.3 million

While the analysis indicates that the SDCs for water and sanitary sewer should be adequate to cover capital costs, the issue of advance financing required system up-sizing and new sewer lift stations will likely require some form of developer or city financing. Advance financing options are discussed in the following pages.

² The ERU estimates are based the midpoint of a range in development, including: 1,747 to 2,637 single family dwellings and 170,000 to 340,000 commercial/office floor area, with 1 job per 500 square feet, and 1 ERU per 2 employees.



Table 8. Potential Capital Funding Requirements, Oregon City South End

	Capital Cost ¹		Potential SDC Revenue at Build-out	Potential Net Revenue/(Gap) before SDC Credits		Funding Strategies
	Low-end Est.	High-end Est.		Low-end Est.	High-end Est.	
Transportation	\$17,019,600	\$21,044,400	\$19,169,561	\$2,149,961	(\$1,874,839)	New subarea SDC and/or LIDs and other sources may be required
Parks & Trails	\$10,872,358	\$20,107,558	\$8,669,154	(\$2,203,204)	(\$11,438,404)	New subarea SDC and/or parks utility fee and/or LIDs and other sources may be required
Water (mainline system)	\$5,362,864	\$5,362,864	\$8,256,634	\$2,893,770	\$2,893,770	Existing SDC appears adequate
Sanitary Sewer System	\$4,219,072	\$4,219,072	\$4,513,199	\$294,127	\$294,127	Existing SDC appears adequate
Stormwater System	\$15,048,748	\$22,011,548	\$1,714,429	(\$13,334,319)	(\$20,297,119)	New subarea SDC and/or stormwater utility fee and/or LIDs may be required
Total	\$52,522,642	\$72,745,442	\$42,322,977	(\$10,199,665)	(\$30,422,465)	

Notes: ¹ Derived from preceding tables. Analysis by FCS GROUP.

A list of existing and potential funding sources and preliminary strategies to be considered as a means of meeting funding needs for the South End area is provided in Table 9.

Table 9. Potential Funding Strategies for South End Concept Plan Area

Funding Source	Existing or Potential Funding Source	Oregon City South End Funding Strategies
SDCs for water, transportation, sewer, stormwater and parks	Existing SDCs should cover about 60% of capital cost.	Consider updates to Oregon City SDC methodology reports; and/or consider South End subarea SDC charges.
Utility rates for transportation, water, sewer, stormwater	Rates should be adjusted to cover most water, sewer and stormwater facility needs.	Rate updates for stormwater now in process.
Parks utility rate	Potential	City could consider new city-wide funding source for parks O&M and capital improvements; to free up some general fund dollars for other uses.
General Fund (such as property tax revenues)	Existing	At build-out the South End area is estimated to generate over \$9.8M in annual property tax revenues (all districts) and \$2M in annual general funds to Oregon City through the state-shared tax contributions. ² The City could dedicate general funds to South End area by issuing bonds backed by current and anticipated General Fund revenues.
Developers (Right-of-Way easement dedications and Advance Financing Agreements)	Potential	Developers should be required to dedicate right-of-way for planned public facility easements, and may provide advance funding/financing for required infrastructure, such as sewer lift stations, with compensation via SDC credits, local improvement districts, or reimbursement districts.
TriMet	Existing	TriMet funding through payroll tax, firebox, and other revenues would support Route 33 bus transit service.

³ State shared tax assumptions are derived from the Oregon City Transportation System Plan, assuming \$389 per capita and 5,612 people added (mid-point of development forecast, 2,192 dwellings with 2.56 persons per dwelling).

Funding Source	Existing or Potential Funding Source	Oregon City South End Funding Strategies
Grants	Potential	ODOT STIP funds for transportation enhancements could match portion of improvements to South End Road, and Metro funds may be available for constructing regional trails.
Full Faith and Credit Bonds, Revenue Bonds	Potential	Oregon City and/or local service providers could consider issuing Full Faith & Credit Bonds or revenue bonds with specified sources of dedicated revenues to pay interest and principle amounts for certain utilities (such as sewer, sewer, stormwater).
General Obligation Bonds	Potential	Local voter-approved general obligation bonds secured by ad valorem property taxes could provide funding for specific capital facilities. Parks and trail improvements are often good candidates for new local GO bond issue.
Loans (financing)	Existing	Loans from Oregon Special Public Works fund could be used to advance finance construction of roads and other infrastructure.

Other Potential New Funding Sources

Additional funding sources can be considered as a means to enhance General Fund revenues or as a means to pay for public facilities in the South End area. While some of these additional funding sources require public voter approval, they can be considered as potential means to pay for expanded urban services into the South End area as shown in Table 10.

Table 10. Additional Potential New Funding Sources

Funding Source	Voter Approval Required?	Eligible Public Facilities
Local sales tax	No	All
Franchise fees	No	All
Transient lodging tax	No	Up to 30 percent maximum can be used for transportation facilities.
Transportation Management Association (TMA; new non-profit entity)	No	Transit operations (local loop route) would require dedicated source of funding within a TMA District (could include parking fees or employer charges).
County Service District, Funding via property tax	Yes	All, per district formation per ORS 198. Requires city/county joint adoption and agreements.
Urban Renewal District	Yes ³	All, per Urban Renewal Plan if adopted per ORS 457 and per County Measure 3-386.
Local fuel tax	Yes	Transportation

Development Phasing

The South End Concept Plan area includes between 2,192 and 2,637 new dwelling units by year 2035. In addition, the South End area may also include a neighborhood commercial/office/mixed-use development of between 170,000 and 340,000 square feet of floor area.

³ Measure 3-386 was approved by Clackamas County voters in November 2011 and requires countywide voter approval to create or make a "substantial change" to urban renewal districts. The measure applies only to districts in unincorporated portions of the county, not within cities.

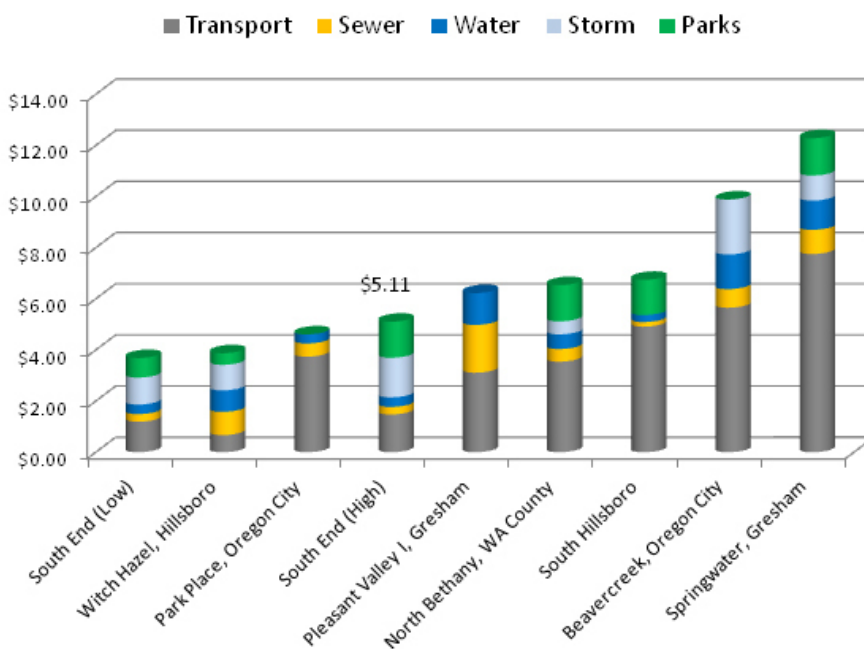
The market analysis conducted as part of the Existing Conditions report expects short- and mid-term demand (years 1-15) to be focused on housing, which would be provided incrementally in accordance with the City's annexation policy.

The cost of public facilities within the South End area ranges from \$3.69 to \$5.11 per gross buildable square foot of land area. The expected public facility cost per square foot of buildable land area in the South End compares favorably with other urbanizing areas within the greater Portland Region, as indicated in Figure 14. This cost comparison takes into account other adopted cost plans, with costs converted to 2013 dollars. Given the ongoing private housing development underway in other urbanizing areas (including North Bethany and Pleasant Valley) which have higher public facility costs than South End Concept Plan area, it is likely that the public facilities that are planned within the South End area can be reasonably funded in a manner that results in an adequate development return on investment.



Major capital improvements required to serve the South End area will be constructed incrementally over time based on market conditions and permitted annexations. The City should require planned public facilities to be "reasonably funded" prior to allowing new development to occur. This entails updates to the City's Capital Improvement Program, with specific projects identified along with anticipated funding sources, as a condition of development within new annexation areas.

Figure 16. Comparative Public Facility Cost per Sq.Ft. of Buildable Land Area



Source: compiled by FCS GROUP based on adopted concept plans, 2013 dollars.

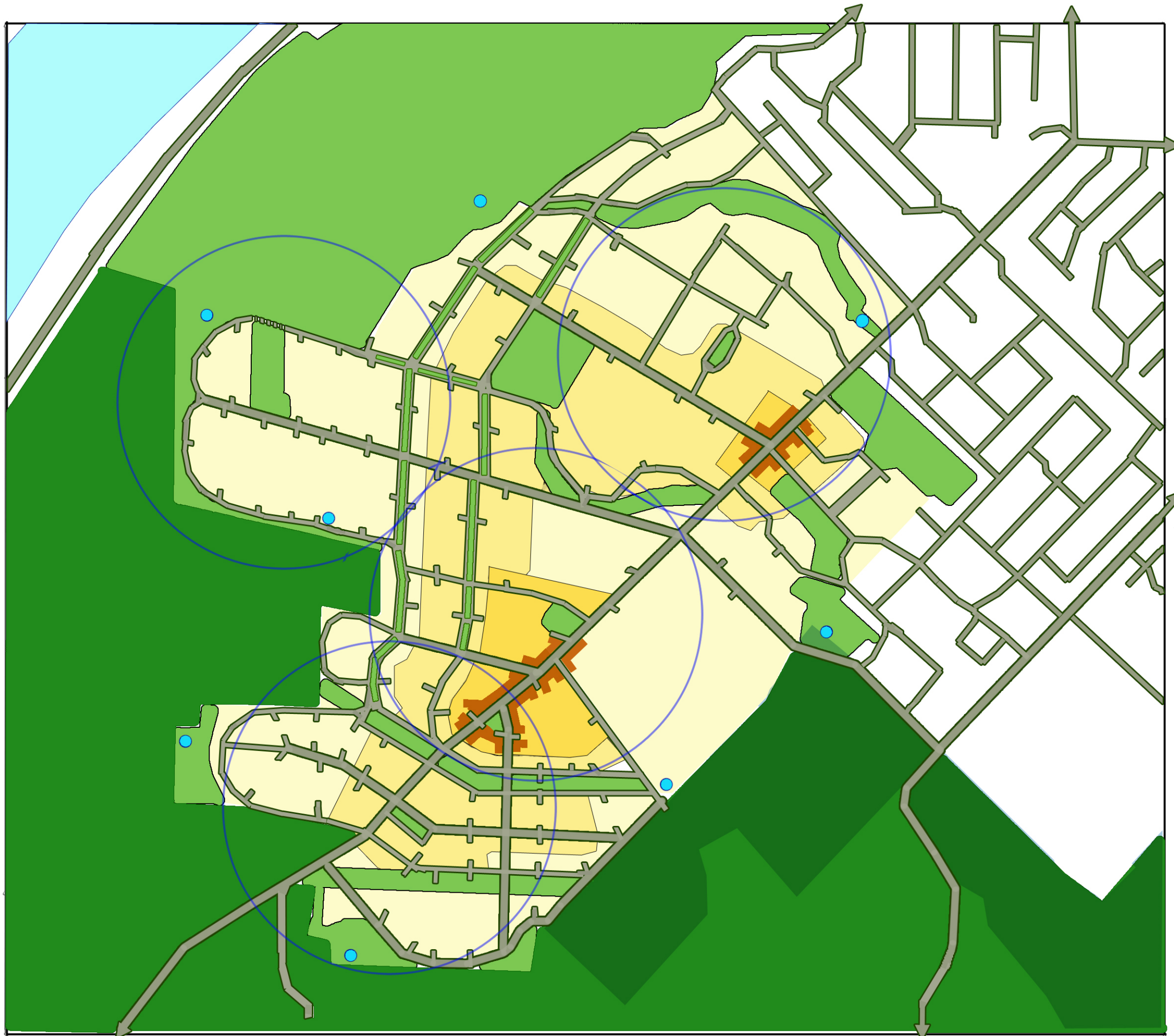
Near-term Implementation Actions

Implementation of the South End Concept Plan area will require proactive work by Oregon City staff and leadership. Key steps to be undertaken over the next four years include:

- Adopt the South End Concept Plan.
- Prepare and adopt recommended local ordinance amendments.
- Document potential fiscal impacts to the city, county and service districts, including potential tax and fee revenues and service costs that are associated with South End annexation.
- Perform value engineering to scale down costs for green streets, parks and stormwater improvements.
- Consider public-private partnerships for providing community park facilities; and work with local citizens, property owners and service providers to further evaluate and adopt new funding sources that have been identified in this plan document.
- Prepare a detailed Public Facility Plan that refines project capital cost estimates, and identifies short-term public facilities and their funding sources.
- Revisit inter-local urban service agreements with Clackamas County and utility service providers to ensure that the roles and responsibilities for advance financing required public infrastructure and providing adequate operations and maintenance service levels are clarified.

South End Concept Plan

Appendix



SOUTH END CONCEPT PLAN



FUTURE CONNECTION



EXISTING CITY
OUTSIDE STUDY AREA



MUNICIPAL STORMWATER



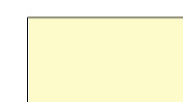
NEIGHBORHOOD
COMMERCIAL



SMALL LOT RESIDENTIAL



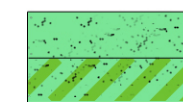
MEDIUM LOT RESIDENTIAL



LARGE LOT RESIDENTIAL



PROTECTED WETLANDS



PARKS, SCHOOL AND
PRIVATE OPEN SPACE



RURAL RESERVE



URBAN RESERVE 3G



1/4 MILE/FIVE MINUTE
WALKING RADIUS



SCALE: 1" = 800' AT 11x17

Date: 10/16/13



The locations of the features shown on this map, including future land uses, roads, and open space areas are for concept planning purposes. The final location of these features will be determined when a site specific development plan is proposed following annexation initiated by property owners. Existing lawfully established land uses and structures within the UGB are regulated by Clackamas County, and are permitted to remain until such time as the property owner decides to annex to Oregon City and develop their property subject to Oregon City zoning and development regulations.

City of Oregon City

GEOGRAPHIC INFORMATION SYSTEM

Proposed Comprehensive
Plan Designations
-- Public Review Draft --

- LR - Low Density Residential
- MR - Medium Density Residential
- HR - High Density Residential
- Mixed Use-Corridor
- QP - Public/Quasi Public
- City Limits
- UGB
- Study Area

LR - 389.31
MR - 180.67
HR - 11.09
MUC - 15.59
QP - 16.98

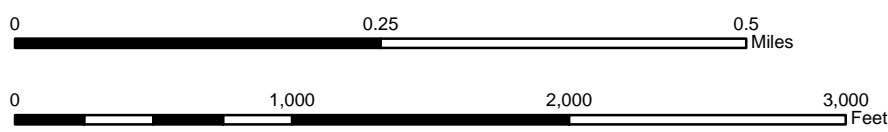


**South End
Concept
Plan**

DRAFT

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The City of Oregon City makes no representations, express or implied, as to the accuracy, completeness and timeliness of the information displayed. This map is not suitable for legal, engineering, or surveying purposes. Notification of any errors is appreciated.



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Plot date: October 31, 2013
Plot name: SECP - Proposed Comp Plan - 11x17P - 20131031.pdf
Map name: SECP - Proposed Comp Plan - 11x17P.mxd

Please recycle with colored office grade paper.



OCMC – OREGON CITY MUNICIPAL CODE

PROPOSED AMENDMENTS

Planning Commission / City Commission Joint Worksession November 12, 2013

The following Oregon City Municipal Code Amendments are intended to supplement existing city code in order to implement the South End Concept Plan. Many zoning, subdivision and other regulatory code provisions necessary to implement the concept plan already exist within the existing code.

<u>Chapter</u>	<u>Title</u>
12.04	Streets, Sidewalks and Public Places
14.04	Annexations
16.08	Subdivisions – Process and standards
16.16	Minor Partitions – Process and standards
17.18	R-2 Multi-family Zone
17.22 (new)	Single Family Residential Design Standards – SECP
17.24	NC – Neighborhood Commercial Zone
17.29	MUC – Mixed Use Corridor Zone
17.54	Supplementary Zoning Regulations and Exceptions

Please Note: Code Revisions applicable to development city-wide, such as public trail dedication requirements for new development in *Chapter 12.04 Street Sidewalks and Public Places*, and other housekeeping code amendments will be separately considered in public hearings set for a date certain following adoption of the South End Concept Plan by the City Commission, in mid-to late 2014.

- Items shown as underlined indicate new language to be inserted into the code.
- Items shown in ~~strikeout~~ font indicate existing code language to be deleted.
- Comments in the sidebar explain the reason for the code change.

Title 12 - STREETS, SIDEWALKS AND PUBLIC PLACES

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES

NOTE: The following amendments regarding trails dedication are provided for preliminary information and discussion only and are subject to further review by staff and the Parks and Recreation Advisory Committee (PRAC). These amendments would affect development outside of the immediate South End Concept Plan area, therefore staff is recommending postponing formal review and adoption to a date certain later in 2014 (aka the "6-month review").

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES ¹²

Sections:

OCMC CHAPTER 12.04 - STREETS, SIDEWALKS AND PUBLIC PLACES

12.04.003 Applicability

A. Compliance with this chapter is required for all Land Divisions, Site Plan and Design Review, Master Plan, Detailed Development Plan and Conditional Use applications and all public improvements.

B. Compliance with this chapter is also required for new construction or additions which exceed 50 percent of the existing square footage, of all single and two-family dwellings. All applicable single and two-family dwellings shall provide any necessary dedications, easements or agreements as identified in the Transportation System Plan and this Chapter. In addition, the frontage of the site shall comply with the following prioritized standards identified in this chapter:

1. Improve street pavement, construct curbs, gutters, sidewalks and planter strips; and
2. Plant street trees

The cost of compliance with the standards identified in 12.04.003.B.1 and 12.04.003.B.2 is limited to ten (10%) percent of the total construction costs. The value of the alterations and improvements as determined by the Community Development Director is based on the entire project and not individual building permits. It is the responsibility of the applicant to submit to the Community Development Director the value of the required improvements. Additional costs may be required to comply with other applicable requirements associated with the proposal such as access or landscaping requirements.

C. Where the city engineer determines a conflict exists between these standards and the adopted street standards of a special plan district, concept plan, or corridor plan, the standards in the special plan district, concept plan or corridor plan shall take precedence.

12.04.xx -- Trail Dedication Required

A. Purpose. The public recreational trail requirements are intended to increase recreational opportunities within the City of Oregon City and connect these recreational opportunities with a regional recreational trail system and support alternative modes of transportation; and help create a pleasant, aesthetically pleasing urban environment.

1. Trails and trail corridors shall be provided in accordance with any city-adopted plans for the subject property as a condition of approval of a land division or site plan and design review application for the subject property.

Comment [pw1]: Allows for standards of South End Concept Plan and Park Place Concept Plan to prevail.

Comment [C2]: Discuss with City Attorney the option of requiring dedication or non-remonstrance at time of annexation or zone change.

Comment [C3]: Alternate language from Portland -- All applicants for a land use review or for building permits on lands designated with a recreational trail symbol on the zoning map are required to grant an easement for the recreational trail. The easement must be done as part of recording a land use review and finalized prior to obtaining a final certificate of occupancy. The land may be donated to the City instead of granting an easement when the standards of Section 33.272.080 are met. Trails shown adjacent to public rights-of-way may be constructed in the public right-of-way, subject to approval from the Office of Transportation.

Title 12 - STREETS, SIDEWALKS AND PUBLIC PLACES

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES

2. If the condition of approval is not voluntarily accepted by the applicant, the findings in the approval shall indicate how the dedication and/or improvements roughly proportional to the impact of the proposed development.
3. A public recreational trail must comply with the applicable standards of the Parks and Recreation Division for recreational trails or, where the trail is located in a public right-of-way, it must comply with the standards of the City Engineer.

Comment [C4]: This is similar to the language Bend uses in their code when discussing conditions of approval requiring improvements.

Comment [C5]: If Parks and/or the City Engineer don't have standards you could include some here for both width and improvements.

12.04.xx -- Trail Corridors —Dedications, Easements and Setbacks

A. Applicants for development may delineate and show the trail corridor as either a separate tract or public access easement that meets the following requirements, as applicable.

B. Prior to final plat, certificate of occupancy, or construction plan approval by the city, the trail corridor shall be identified to distinguish it from buildable land. The trail corridor may be identified as any one of the following:

1. Private open space held by the owner or a homeowners association, provided easements conveying public access, stormwater and surface water management rights to the city, and preventing the owner of the tract from activities and uses inconsistent with the purpose of the trail corridor are provided through the open space; or
2. At the owners option, public open space where the tract has been dedicated to the city or other governmental unit, provided the Parks and Recreation Department accepts the dedication; or
3. Any other ownership proposed by the owner and approved by the community development director.
4. Trails shall be dedicated to the public on the final plans for the development unless the developer incorporates the trail corridor into a recorded easement or tract that specifically provides for the ownership, liability and maintenance of the accessway.

C. Setbacks. Buildings setbacks shall be measured from the edge of the trail corridor tract or easement, notwithstanding any other setbacks, easements, or vegetated corridor easements required pursuant to applicable overlay districts.

D. When a lot abuts a trail corridor, an area equal to the length of the trail frontage along the lot times the width of the trail corridor measured from the trail centerline may be added to the area of the abutting lot in order to satisfy the lot area requirement for the abutting lot. It may also be used in calculating the average lot area.

Comment [pw6]: This section is the same language we already use for alleys in subdivisions, which has worked well in the past.

E. Trail corridors shall not be placed within required public alleys unless the Community Development Director determines that there is no practicable alternative based on one or more of the following physical or jurisdictional constraints. Such evidence may include but is not limited to:

Comment [pw7]: These factors are similar to the pedestrian access way exemption requirements.

1. That other federal, state or local requirements prevent construction of a trail without placing it in an alley.
2. That the nature of abutting existing development makes construction of an trail corridor outside of an alley impracticable;
3. That the trail outside of an alley would cross an area affected by an overlay district in a manner incompatible with the purposes of the overlay district;

Title 12 - STREETS, SIDEWALKS AND PUBLIC PLACES

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES

4. That the trail corridor would cross topography consisting predominantly of slopes over twenty-five percent;
5. That the trail corridor would terminate at the urban growth boundary where extension to another trail corridor is not part of an adopted plan.
6. A proposal to place a trail corridor within a public alley shall demonstrate to the satisfaction of the city engineer that pedestrian, bicycle and vehicular use of the combined alley / trail corridor will not create unsafe conditions.
7. A trail corridor shall within an alley shall be clearly delineated with signs indicating that the alley is also a pedestrian and bicycle trail.

12.04.xx -- Incentives for Trail Corridors

NOTE: We are developing workable incentive language for this section. For simplicity, if subsection D (in red above) is used, this section may not be necessary and may be deleted.

A. Purpose. The purpose of this section is to provide incentives to dedicate trail corridors or provide easements for public recreational trails. These incentives are allows the residential density of otherwise buildable land within a dedicated trail corridor or easement to be transferred outside the corridor to the remainder of the site through the allowance of dimensional adjustments as specified below. This provision applies on-site and density may not be transferred beyond the boundaries of the development site.

B. Permitted modifications to dimensional standards for trail corridor tracts.

An applicant proposing to provide a trail in a dedicated tract or recorded easement pursuant to section 12.04 may request, and the community development director, pursuant to a Type II procedure, may grant a reduction to, the lot size, width, depth, and setbacks of up to 20% of the underlying zone district in approving a land division or site plan application. if necessary to provide a trail corridor tract, as long as the calculation of average lot size, including the trail corridor tract, meets the minimum lot size for the zone. The applicant may choose to make the adjustments over as many lots as required. For example, the lot size reduction could be spread across all the remaining lots in the proposed subdivision or partition or could be applied to only those needed to incorporate the area of the trail corridor.

The applicable dimensional standards of the zone district shall apply in addition to the requirements of the city land division ordinance and zoning ordinance, provided that the minimum lot area, minimum average lot width, and minimum average lot depth standards of the base zone may be superseded in order to allow for a reduction of dimensional standards pursuant to Section 12.04. below.

B. Applications that request a density transfer shall:

1. Provide a map showing the net buildable area of the trail corridor;
2. Provide calculations justifying the requested dimensional adjustments;
3. Demonstrate that the minimum lot size requirements can be met based on an average of all lots created, including the trail corridor created pursuant to this section.

Comment [pw8]: This new section provides an incentive for property owners to dedicate trail corridors by allowing the area within the trail corridor to be credited toward the remaining buildable area through the reduction of setbacks, lot size, width and depth up to 20%.

Title 12 - STREETS, SIDEWALKS AND PUBLIC PLACES

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES

- 4. Demonstrate that, with the exception of the trail corridor, no parcels have been created which would be unbuildable in terms of minimum yard setbacks;
- 5. Meet all other standards of the base zone except as modified in section 12.04 below.
- C. The area of land contained in a trail corridor may be excluded from the calculations for determining compliance with minimum density requirements of the zoning code.

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Title 14 - ANNEXATIONS

Chapter 14.04 CITY BOUNDARY CHANGES AND EXTENSION OF SERVICES

Chapter 14.04 CITY BOUNDARY CHANGES AND EXTENSION OF SERVICES

Sections:

[14.04.050 Annexation procedures.](#)

14.04.050 Annexation procedures.

- A. Application Filing Deadlines. Annexation elections shall be scheduled for March, May, September and November of each year. Each application shall first be approved by the city commission, which shall provide a valid ballot title in sufficient time for the matter to be submitted to the voters as provided by the election laws of the state of Oregon.
- B. Preapplication Review. Prior to submitting an annexation application, the applicant shall confer in the manner provided by [Section 17.50.050\(A\)](#) with the representative of the planning division appointed by the city manager.
- C. Neighborhood Contact. Prior to filing an annexation application, the applicant is encouraged to meet with the city-recognized neighborhood association or associations within which the property proposed to be annexed is located. If the city manager deems that more than one such association is affected, the applicant is encouraged to meet with each such association, as identified by the city manager. Unwillingness or unreasonable unavailability of a neighborhood association to meet shall not be deemed a negative factor in the evaluation of the annexation application.
- D. Signatures on Consent Form and Application. The applicant shall sign the consent form and the application for annexation. If the applicant is not the owner of the property proposed for annexation, the owner shall sign the consent form and application in writing before the city manager may accept the same for review.
- E. Contents of Application. An applicant seeking to annex land to the city shall file with the city the appropriate application form approved by the city manager. The application shall include the following:
 1. Written consent form to the annexation signed by the requisite number of affected property owners, electors or both, provided by ORS 222, if applicable;
 2. A legal description of the territory to be annexed, meeting the relevant requirements of the Metro Code and ORS Ch. 308. If such a description is not submitted, a boundary survey may be required. A lot and block description may be substituted for the metes and bounds description if the area is platted. If the legal description contains any deed or book and page references, legible copies of these shall be submitted with the legal description;
 3. A list of property owners within three hundred feet of the subject property and if applicable, those property owners that will be "islanded" by the annexation proposal, on mailing labels acceptable to the city manager;
 4. Two full quarter-section county tax assessor's maps, with the subject property(ies) outlined;
 5. ~~Twenty five copies of~~ a site plan, drawn to scale (not greater than one inch = fifty feet), indicating:

Comment [pw1]: We do not need 25 copies of an application. It wastes paper and we only need one hard copy and one full electronic copy.

Title 14 - ANNEXATIONS

Chapter 14.04 CITY BOUNDARY CHANGES AND EXTENSION OF SERVICES

- a. The location of existing structures (if any),
 - b. The location of streets, sewer, water, electric and other utilities, on or adjacent to the property to be annexed,
 - c. The location and direction of all water features on and abutting the subject property. Approximate location of areas subject to inundation, stormwater overflow or standing water. Base flood data showing elevations of all property subject to inundation in the event of one hundred year flood shall be shown,
 - d. Natural features, such as rock outcroppings, marshes or wetlands (as delineated by the Division of State Lands) wooded areas, identified habitat conservation areas, isolated preservable trees (trees with trunks over six inches in diameter-as measured four feet above ground), and significant areas of vegetation,
 - e. General land use plan indicating the types and intensities of the proposed, or potential development;
6. If applicable, a double-majority worksheet, certification of ownership and voters. Certification of legal description and map, and boundary change data sheet on forms provided by the city.
7. A narrative statement explaining the conditions surrounding the proposal and addressing the factors contained in the ordinance codified in this chapter, as relevant, including:
- a. Statement of availability, capacity and status of existing water, sewer, drainage, transportation, park and school facilities,
 - b. Statement of increased demand for such facilities to be generated by the proposed development, if any, at this time,
 - c. Statement of additional facilities, if any, required to meet the increased demand and any proposed phasing of such facilities in accordance with projected demand,
 - d. Statement outlining method and source of financing required to provide additional facilities, if any,
 - e. Statement of overall development concept and methods by which the physical and related social environment of the site, surrounding area and community will be enhanced,
 - f. Statement of potential physical, aesthetic, and related social effects of the proposed, or potential development on the community as a whole and on the small subcommunity or neighborhood of which it will become a part; and proposed actions to mitigate such negative effects, if any,
 - g. Statement indicating the type and nature of any comprehensive plan text or map amendments, or zoning text or map amendments that may be required to complete the proposed development;
8. The application fee for annexations established by resolution of the city commission and any fees required by metro. In addition to the application fees, the city manager shall require a deposit, which is adequate to cover any and all costs related to the election.
9. Paper and electronic copies of the complete application as required by the Community Development Director.

Comment [pw2]: Annexation maps will need to refer to Metro / County mapped HCAs for UGB expansion areas as part of the application.

Comment [pw3]: New requirement to save paper and improve record keeping.

Title 16 - LAND DIVISIONS

Chapter 16.08 SUBDIVISIONS—PROCESS AND STANDARDS

Chapter 16.08 SUBDIVISIONS—PROCESS AND STANDARDS ^[2]

Sections:

[16.08.025 Preliminary subdivision plat—Required plans.](#)

[16.08.030 Preliminary subdivision plat—Narrative statement.](#)

16.08.025 Preliminary subdivision plat—Required plans.

The preliminary subdivision plat shall specifically and clearly show the following features and information on the maps, drawings, application form or attachments. All maps and site drawings shall be at a minimum scale of one inch to fifty feet.

- A. Site Plan. A detailed site development plan showing the location and dimensions of lots, streets, pedestrian ways, transit stops, common areas, building envelopes and setbacks, all existing and proposed utilities and improvements including sanitary sewer, stormwater and water facilities, total impervious surface created (including streets, sidewalks, etc.) and an indication of existing and proposed land uses for the site. If required by staff at the pre-application conference, a subdivision connectivity analysis shall be prepared by a transportation engineer licensed by the State of Oregon that describes the existing and future vehicular, bicycle and pedestrian connections between the proposed subdivision and existing or planned land uses on adjacent properties. The subdivision connectivity analysis shall include shadow plats of adjacent properties demonstrating how lot and street patterns within the proposed subdivision will extend to and/or from such adjacent properties and can be developed meeting the existing Oregon City Municipal Code design standards and adopted Transportation System Plan, street design standards, and adopted concept plans, corridor and access management studies, engineering standards and infrastructure analyses.
- B. Traffic/Transportation Plan. The applicant's traffic/transportation information shall include two elements: (1) A detailed site circulation plan showing proposed vehicular, bicycle, transit and pedestrian access points and connections to the existing system, circulation patterns and connectivity to existing rights-of-way or adjacent tracts, parking and loading areas and any other transportation facilities in relation to the features illustrated on the site plan; and (2) a traffic impact study prepared by a qualified professional transportation engineer, licensed in the state of Oregon, that assesses the traffic impacts of the proposed development on the existing transportation system and analyzes the adequacy of the proposed internal transportation network to handle the anticipated traffic and the adequacy of the existing system to accommodate the traffic from the proposed development. In the preparation of the Traffic / Transportation Plan, the applicant shall reference the adopted Transportation System Plan. The City Engineer may waive any of the foregoing requirements if determined that the requirement is unnecessary in the particular case.
- C. Natural Features Plan and Topography, Preliminary Grading and Drainage Plan. The applicant shall submit a map illustrating all of the natural features and hazards on the subject property and, where practicable, within two hundred fifty feet of the property's boundary. The map shall also illustrate the approximate grade of the site before and after development. Illustrated features must include all proposed streets and cul-de-sacs, the location and estimated volume

Comment [pw1]: Ensure that connectivity analyses look at concept plans for future local street connections.

Comment [pw2]: This will help ensure concept plans are referenced and implemented since they amend the TSP.

Title 16 - LAND DIVISIONS

Chapter 16.08 SUBDIVISIONS—PROCESS AND STANDARDS

of all cuts and fills, and all stormwater management features. This plan shall identify the location of drainage patterns and courses on the site and within two hundred fifty feet of the property boundaries where practicable. Features that must be illustrated shall include the following:

1. Proposed and existing street rights-of-way and all other transportation facilities;
2. All proposed lots and tracts;
3. All trees proposed to be removed prior to final plat with a diameter six inches or greater diameter at breast height (d.b.h);
4. All natural resource areas pursuant to [Chapter 17.49](#), including all jurisdictional wetlands shown in a delineation according to the Corps of Engineers Wetlands Delineation Manual, January, 1987 edition, and approved by the Division of State Lands and wetlands identified in the City of Oregon Local Wetlands inventory, adopted by reference in the City of Oregon City comprehensive plan;
5. All known geologic and flood hazards, landslides or faults, areas with a water table within one foot of the surface and all flood management areas pursuant to [Chapter 17.42](#)
6. The location of any known state or federal threatened or endangered species;
7. All historic areas or cultural features acknowledged as such on any federal, state or city inventory;
8. All wildlife habitat or other natural features listed on any of the city's official inventories.

Comment [pw3]: Oregon City's and Clackamas County's Title 13 habitat conservation area (HCA) maps for the UGB areas are the same. Owners will be required to provide an on-site survey of these areas prior to development approval.

Title 16 - LAND DIVISIONS

Chapter 16.16 MINOR PARTITIONS—PROCESS AND STANDARDS

Chapter 16.16 MINOR PARTITIONS—PROCESS AND STANDARDS ^(a)

Sections:

[16.16.020 Minor partition application submission requirements.](#)

16.16.020 Minor partition application submission requirements.

A minor partition application shall include twelve copies of the proposed partition to the community development director on a reproducible material, drawn at a minimum scale of one-inch equals one hundred feet with the following information:

- A. A completed land use application form as provided by the planning division;
- B. Legal descriptions of the parent parcel(s) and a preliminary plat map;
- C. The name and address of the owner(s) and the representative, if any;
- D. County tax assessment map number(s) of the land to be partitioned;
- E. The map scale and north point;
- F. Approximate courses and dimensions of all parts of the partition;
- G. Around the periphery of the proposed minor partition, the boundary lines and names of adjacent minor partitions and subdivisions, streets and tract lines of adjacent parcels of property;
- H. The location, width and names of all existing or platted streets, other public ways and easements within the proposed partition, and other important features, such as the general outline and location of permanent buildings, pedestrian/bicycle access ways, watercourses, power lines, telephone lines, railroad lines, gas lines, water lines, municipal boundaries and section lines;
- I. All areas designated as being within an overlay district;
- J. A connectivity analysis may be required as directed at the pre-application conference. If required, the partition connectivity analysis shall be prepared by an engineer licensed by the State of Oregon which describes the existing and future vehicular, bicycle and pedestrian connections between the proposed partition and existing or planned land uses on adjacent properties. The connectivity analysis shall include shadow plats of adjacent properties demonstrating how lot and street patterns within the proposed partition will extend to and/or from such adjacent properties and can be developed meeting the existing Oregon City Municipal Code design standards and adopted Transportation System Plan, street design standards, and adopted concept plans, corridor and access management studies, engineering standards and infrastructure analyses.
- K. Archeological Monitoring Recommendation. For all projects that will involve ground disturbance, the applicant shall provide:

Comment [pw1]: Ensure that connectivity analyses look at concept plans for future local street connections.

Title 16 - LAND DIVISIONS

Chapter 16.16 MINOR PARTITIONS—PROCESS AND STANDARDS

1. A letter or email from the Oregon State Historic Preservation Office Archaeological Division indicating the level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the Oregon State Historic Preservation Office and that the Oregon State Historic Preservation Office had not commented within forty-five days of notification by the applicant; and
2. A letter or email from the applicable tribal cultural resource representative as designated by the Oregon Legislative Commission on Indian Services (CIS) and the Yakama Nation indicating the level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the applicable tribal cultural resource representative and that the applicable tribal cultural resource representative had not commented within forty-five days of notification by the applicant.

If, after forty-five days notice from the applicant, the Oregon State Historic Preservation Office or the applicable tribal cultural resource representative fails to provide comment, the city will not require the letter or email as part of the completeness review. For the purpose of this section, ground disturbance is defined as the movement of native soils.

Title 17 - ZONING

Chapter 17.18 R-2 MULTI-FAMILY DWELLING DISTRICT

Chapter 17.18 R-2 MULTI-FAMILY DWELLING DISTRICT ¹⁸¹

Sections:

[17.18.020 Permitted uses.](#)

17.18.020 Permitted uses.

Permitted uses in the R-2 district are:

- A. Residential units, multi-family;
- B. Parks, playgrounds, playfields and community or neighborhood centers;
- C. Home occupations;
- D. Temporary real estate offices in model homes located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- E. Accessory buildings;
- F. Family day care provider, subject to the provisions of Section 17.54.050. (Prior code §11-3-7(A)); and
- G. Management and associated offices and building necessary for the operations of a multi-family residential development.
- H. Residential care facility per ORS 443.400.
- I. Live/work units, pursuant to subsection [17.54.105 Live/work units.](#)

Comment [pw1]: Allows live/work units in the multi-family zone, pursuant to Site Plan and Design Review and the standards of section 17.54.105

Title 17 - ZONING

Chapter 17.22 SINGLE-FAMILY RESIDENTIAL STANDARDS—SOUTH END CONCEPT PLAN AREA

Chapter 17.22 SINGLE-FAMILY RESIDENTIAL STANDARDS—SOUTH END CONCEPT PLAN AREA

17.22.010 Purpose.

The intent of this chapter is to ensure new development is compatible with the goals and policies of the South End Concept Plan area. Specifically, these standards achieve the following objectives:

- A. Enhance the quality of the streetscape by providing a welcoming and safe area for pedestrians at the front of homes.
- B. Encourage private outdoor space primarily in the rear or side yards of houses.
- C. Locate new homes relatively close to the street to provide “eyes on the street” and encourage neighborly interaction and safety.
- D. Where alleys are required pursuant to Chapter 12.04, assure convenient garage placement and vehicle access and parking.

17.22.020 Applicability.

These standards apply in addition to the Oregon City Municipal Code 17.20—Residential Design Standards. This chapter applies to all new detached single-family and two-family homes, accessory dwelling units, and cottages located within the South End Concept Plan area.

House plans that conform to these standards may be approved as a Type I Decision. House plans that require approval of an exemption shall be processed as a Type II Land Use decision at time of land division or building permit application.

17.22.030 Alley Loaded Garages.

- A. Garages on an alley may be attached to or detached from the house.
- B. Detached garages on an alley shall be setback no further than 5 feet from the alley.
- C. Attached garages on an alley shall meet the principal building setback of the zone district.
- D. Additional parking outside of an attached or detached garage shall be located beside the detached garage, not in front of the garage doors.

17.22.040 Modulation and massing.

New homes shall have a massing and footprint that is compatible with the envisioned pedestrian friendly neighborhoods of the concept plan area.

- A. Houses with footprints over one thousand two hundred square feet (not including porch or deck areas) shall provide for secondary massing (such as cross gabled wings or sunroom/kitchen/dining room extensions) under separate roof-lines. Each secondary mass shall not have a footprint larger than six hundred square feet.

Comment [pw1]: THIS NEW SECTION IS SIMILAR TO PARK PLACE BUT DOES NOT REQUIRE A SPECIFIC ARCHITECTURAL STYLE LIKE PARK PLACE DOES, SUCH AS BUNGALOW, QUEEN ANNE, VERNACULAR, ETC.

THE DECISION TO NOT PRESCRIBE A PARTICULAR ARCHITECTURAL STYLE IS BASED ON GENERAL CONSENSUS FEEDBACK FROM THE COMMUNITY ADVISORY TEAM.

Comment [pw2]: Per OCMC 12.04.255 - Public alleys are required in zone districts R-5, R-3.5, R-2, MUC-1, MUC-2 and NC unless other permanent provisions for private access to off-street parking and loading facilities are approved.

Comment [CAR3]: Where are the alleys required?

Title 17 - ZONING

Chapter 17.22 SINGLE-FAMILY RESIDENTIAL STANDARDS—SOUTH END CONCEPT PLAN AREA

- B. Exemption: An exemption from the massing standard of a) above may be approved by the community development director through a Type II process if the resulting plan continues to provide for a pedestrian friendly design and provides sufficient architectural details to mitigate the impact of a house with a large mass on the surrounding neighborhood.

17.22.050 Porches and entries.

- A. Homes within twenty feet of the public sidewalk or front property line, whichever is closer, shall contain a front porch with a front door that faces the street that is a minimum of twenty-four inches above average grade with skirting and is at least eighty square feet in area with no dimension under six feet with the wider dimension parallel to the street. Porch railings are required. The front porch shall be covered.
- B. Exemption: House styles that do not contain porches or require a reduction in the size of the porch or its location may be granted an exemption pursuant to a Type II Land Use process from A. above, if another type of pronounced entryway is provided. Pronounced entrances may include a rounded front door, canopy or other articulated entrances, columns, and/or other similar features provided they are compatible with the architectural style of the house. A reduced porch may be allowed if there is sufficient architectural or topographical reason to reduce the size of the porch.
- C. Each dwelling unit shall have a separate delineated pedestrian connection (including duplexes, cottages and ADUs) from the front door of the unit to the public sidewalk with a minimum width of three feet. At the front of the house, the pedestrian connection shall be separate from any driveway.

17.22.060 Architectural details.

Dwelling units shall contain architectural details. Each architectural detail listed below is worth one point unless otherwise noted. Dwelling units must achieve the equivalent of five points worth of architectural details.

- A. Stonework detailing on columns or across foundation.
- B. Brick or stonework covering more than ten percent of the façade
- C. Wood, clad wood, or fiberglass windows on all four elevations of the building. (two points).
- D. Decorative roofline elements (choose two): roof brackets, rake board at edge of all roof and porch, eaves, roof eaves that extend at least eighteen inches.
- E. Decorative siding elements (choose two) barge board/frieze boards (minimum eight inches) under eaves, waterboard at foundation line and between floors (minimum six inches), corner board at all corners.
- F. Decorative porch elements (choose one) scrolls, brackets, or wrapped and finished porch railings and posts.
- G. Decorative shingle design covering ten percent of the façade.

Title 17 - ZONING

Chapter 17.22 SINGLE-FAMILY RESIDENTIAL STANDARDS—SOUTH END CONCEPT PLAN AREA

- H. Exemption: Other architectural detailing may be approved through a Type II process if they are constructed with quality material, have a high level of craftsmanship and are consistent with the architectural style of the dwelling.

17.22.070 Approved siding materials.

Dwelling units shall have approved siding materials of one or more the types listed below.

- A. Brick.
- B. Basalt stone or basalt veneer
- C. Narrow horizontal wood or composite siding (five inches wide or less); wider siding will be considered where there is a historic precedent pursuant to a Type II process.
- D. Board and baton siding (wood or composite siding)
- E. Exemption: Other materials may be approved through a Type II process if they are consistent with the quality of the approved siding materials and have historic precedence in Oregon City.

17.22.080 Windows.

- A. All windows on all elevations must be recessed at least two inches from the façade and incorporate window trim at least four inches in width. All elevations must provide an average of one window every fifteen feet of linear elevation on each floor of each elevation. If shutters are used, they shall be half of the window opening each such that the entire window opening is covered when they are closed.
- B. Exemption: An exemption may be granted through a Type II process from the window standard of A. above if the proposed windows provide for some amount of recess depth and the side elevation is consistent architecturally with the front elevation of the house in window prominence.

17.22.090 Garages and accessory structures.

- A. All detached garages and accessory structures larger than 200 square feet shall be designed consistent with the primary residence. Consistency of design includes the use of similar roofing, siding, and trim.
- B. Detached garages connected by a breezeway will be subject to the setbacks of the underlying zone. Exceptions to this standard shall be processed as a Type II Land Use decision at time of land division or building permit application.

Title 17 - ZONING

Chapter 17.24 NC NEIGHBORHOOD COMMERCIAL DISTRICT

Chapter 17.24 NC NEIGHBORHOOD COMMERCIAL DISTRICT ⁽¹⁰⁾

Sections:

[17.24.010 Designated.](#)

[17.24.020 Permitted Uses—NC.](#)

[17.24.025 Conditional uses.](#)

[17.24.035 Prohibited uses.](#)

[17.24.040 Dimensional standards.](#)

17.24.010 Designated.

The Neighborhood Commercial District is designed for small-scale commercial and mixed-uses designed to serve a convenience need for residents in the surrounding low-density neighborhood. Land uses consist of small and moderate sized retail, service, office, multi-family residential uses or similar ~~as defined by the community development director.~~ This district may be applied where it is appropriate to reduce reliance on the automobile for the provision of routine retail and service amenities, and to promote walking and bicycling within comfortable distances of adjacent residential infill neighborhoods, such as within the Park Place and South End Concept Plan areas. Approval of a Site Plan and Design Review application pursuant to OCMC 17.62 is required.

Comment [pw1]: Adds a little more background to the purpose of the NC district as it would be applied in South End and Park Place.

17.24.020 Permitted Uses—NC.

The following uses are permitted within the Neighborhood Commercial District.

- A. Any use permitted in the Mixed-Use Corridor, provided the maximum footprint for a stand alone building with a single store or multiple buildings with the same business does not exceed ten thousand square feet, unless otherwise restricted in Sections [17.24.020](#), 17.24.030 or [17.24.040](#)
- B. Grocery stores, provided the maximum footprint for a stand alone building with a single store or multiple buildings with the same business does not exceed forty thousand square feet.
- C. Live/work units, pursuant to subsection [17.54.105 Live/work units.](#)
- D. Multi-family, single-family attached or two-family residential, when proposed along with any non-residential allowed use in the NC district in a single development application and not exceeding fifty percent of the total building square feet in said application.
- E. Outdoor sales that are ancillary to a permitted use on the same or abutting property under the same ownership.

Comment [CAR2]: What is the difference between single family attached and multi-family in this context?

Comment [pw3]: This existing provision helps assure that residential use does not displace retail uses in the district.

Comment [pw4]: "Attached dwelling" means a dwelling which is joined to another dwelling at one or more sides by a party wall or walls. "Dwelling apartment or multi-family or condominium" is a structure located on one tax lot and containing three or more dwelling units in any vertical or horizontal arrangement.

17.24.025 Conditional uses.

The following conditional uses are may be permitted when approved in accordance with the process and standards contained in [Chapter 17.56](#).

- A. Any use permitted in the Neighborhood Commercial District that has a building footprint in excess of ten thousand square feet.

Title 17 - ZONING

Chapter 17.24 NC NEIGHBORHOOD COMMERCIAL DISTRICT

- B. Emergency and ambulance services;
- C. Drive-thru facilities;
- D. Outdoor markets that do not meet the criteria of [Section 17.24.020](#) are operated before six p.m. on weekdays;
- E. Public utilities and services such as pump stations and sub-stations;
- F. Religious institutions;
- G. Public and or private educational or training facilities;
- H. Gas Stations;
- I. Hotels and motels, commercial lodging;
- J. Vet clinic or pet hospital.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

17.24.035 Prohibited uses.

The following uses are prohibited in the NC District:

- A. Distributing, wholesaling and warehousing;
- B. Outdoor storage;
- C. Outdoor sales that are not ancillary to a permitted use on the same or abutting property under the same ownership;
- D. Hospitals;
- E. Kennels;
- F. Motor vehicle sales and incidental service;
- G. Motor vehicle repair and service;
- H. Self-service storage facilities;
- I. Heavy equipment service, repair, sales, storage or rental (including but not limited to construction equipment and machinery and farming equipment).

Comment [CAR5]: Any hour limitations on weekends?

Comment [pw6]: Easier to just reference hours here rather than cross-reference a code provision that does not exist.

Comment [pw7]: No hour limitations on weekends.

Comment [CAR8]: Is this like food carts? If so, is the paved area to accommodate the carts the use or are the carts themselves the use?

Comment [pw9]: If desire is to create active retail environment in certain areas along South End Road, some outdoor sales should be permitted.

Comment [pw10]: An administrative process for food cart permitting effective city wide still needs to be developed if it has support. In the meantime, the outdoor sales would be subject to site plan and design review (poss. Minor).

Title 17 - ZONING

Chapter 17.29 "MUC"—MIXED-USE CORRIDOR DISTRICT

17.29.020 Permitted uses—MUC-1 and MUC-2.

- A. Banquet, conference facilities and meeting rooms;
- B. Bed and breakfast and other lodging facilities for up to ten guests per night;
- C. Child care centers and/or nursery schools;
- D. Indoor entertainment centers and arcades;
- E. Health and fitness clubs;
- F. Medical and dental clinics, outpatient; infirmity services;
- G. Museums, libraries and cultural facilities;
- H. Offices, including finance, insurance, real estate and government;
- I. Outdoor markets, such as produce stands, craft markets and farmers markets that are operated on the weekends and after six p.m. during the weekday;
- J. Postal services;
- K. Parks, playgrounds, play fields and community or neighborhood centers;
- L. Repair shops, for radio and television, office equipment, bicycles, electronic equipment, shoes and small appliances and equipment;
- N. Residential units, multi-family;
- O. Restaurants, eating and drinking establishments without a drive through;
- P. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
- Q. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores, and similar, provided the maximum footprint for a stand alone building with a single store or multiple buildings with the same business does not exceed sixty thousand square feet;
- R. Seasonal sales, subject to Oregon City Municipal Code Section 17.54.060;
- S. Assisted living facilities; nursing homes and group homes for over fifteen patients;
- T. Studios and galleries, including dance, art, photography, music and other arts;
- U. Utilities: Basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers.
- V. Veterinary clinics or pet hospitals, pet day care.
- W. Home occupations;
- X. Research and development activities;
- Y. Temporary real estate offices in model dwellings located on and limited to sales of real estate on a single piece of platted property upon which new residential buildings are being constructed;
- Z. Residential care facility.

AA. Live/work units, pursuant to subsection 17.54.105 Live/work units.

Comment [pw1]: Live/Work units are regulated as a commercial use for zoning purposes and building code requirements (e.g. sprinklers).

17.29.040 Prohibited uses in the MUC-1 and MUC-2 zones.

Title 17 - ZONING

Chapter 17.29 "MUC"—MIXED-USE CORRIDOR DISTRICT

The following uses are prohibited in the MUC district:

- A. Distributing, wholesaling and warehousing;
- B. Outdoor sales or storage;
- ~~C. Outdoor sales that are not ancillary to a permitted use on the same or abutting property under the same ownership;~~
- D. Correctional facilities;
- ~~E. Heavy equipment service, repair, sales, storage or rental² (including but not limited to construction equipment and machinery and farming equipment);~~
- ~~F. Kennels;~~
- ~~G. Motor vehicle and recreational vehicle sales and incidental service;~~
- ~~H. Motor vehicle and recreational vehicle repair/service;~~
- ~~G. Outdoor sales or storage;~~
- I. Self-service storage facilities.

Comment [pw2]: If desire is to create active retail environment along south End Road, some outdoor sales should be permitted.

Comment [pw3]: This section was repeated in error in the adopted code.

Title 17 - ZONING

Chapter 17.54 SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS

Chapter 17.54 SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS ^[28]

Sections:

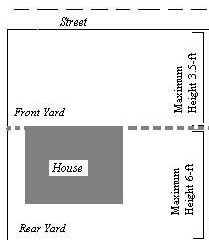
[17.54.100 Fences.](#)

[17.54.105 Live/work units.](#)

17.54.100 Fences.

Fence, Setback and Height Limitations.

A fence may be located on the property or in a yard setback area subject to the following:



;sz=7.5q; Any fence, hedge or wall located in front of your home may be up to three and one-half feet in total height.

;sz=7.5q; fence, hedge or wall located next to and behind your home may be up to six feet in total height.

A. Generally. Fence, hedge, or wall.

1. Fences and walls—Fences and walls over forty-two inches shall not be located in front of the front ~~faced facade~~ or within forty feet of the public right-of-way, whichever is less. All other fences (including fences along the side and rear of a property) shall not exceed six feet in total height unless as permitted Section 17.54.100B.
2. Hedges shall not be more than forty-two inches in the underlying front yard setback. Individual plants and trees taller than forty-two inches tall may be permitted provided there is at least one foot clearance between each plant.
3. Property owners shall ensure compliance with the Traffic Sight Obstruction requirements in Chapter 10.32 of the Oregon City Municipal Code.
4. It is unlawful for any person to erect any electric fence or any fence constructed in whole or in part of barbed wire or to use barbed wire, except as erected in connection with security installations at a minimum height of six feet, providing further that prior written approval has been granted by the city Manager.

Comment [pw1]: Should this distance be wider, say 2-5 feet?

Title 17 - ZONING

Chapter 17.54 SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS

- B. Exception. Fence, hedge, wall, or other obstructing vegetation on retaining wall. When a fence, hedge, wall, or other obstructing vegetation is built on a retaining wall or an artificial berm that is not adjacent to or abutting a public right-of-way, the following standards shall apply:
1. When the retaining wall or artificial berm is 30 inches or less in height from the finished grade, the maximum fence or wall height on top of the retaining wall shall be six feet.
 2. When the retaining wall or earth berm is greater than thirty inches in height, the combined height of the retaining wall and fence or, wall from finished grade shall not exceed eight and one-half feet.
 3. Fences, hedges or walls located on top of retaining walls or earth berms in excess of eight and one-half feet in height shall be setback a minimum of two feet from the edge of the retaining wall or earth berm below and shall not exceed a combined height of eight and one-half feet.
 4. An alternative height or location requirement may be approved within a land use process for all non-single-family and two-family residential properties. The fence, hedge or wall shall be compatible with the adjacent neighborhood and achieve the same intent of the zoning designation and applicable site plan and design review process. In no case may the fence, hedge or wall exceed eight feet in height without approval of a variance.

17.54.105 Live/work units.

Live/work units provide important flexibility by combining residential and commercial uses and allowing for commercial uses on the ground floor when the market is ready to support them. These standards apply to all new live/work units. Live/work units that conform to the standards will be approved as a Type II Decision and a live/work permit will be granted for the property. For all zones where live/work units are permitted, the following standards shall apply. Conditions of approval may be implemented to ensure compliance with the standards.

- A. The ground floor business ~~has shall provide~~ visibility, signage and access from the primary street. The building in which the live work dwelling is located shall architecturally differentiate the ground floor commercial/office space from the rest of the building by meeting the following requirements:
1. The main front elevation shall provide at least fifty percent transparency at the pedestrian level through the use of a storefront window system. The transparency is measured in lineal fashion (For example, a twenty-five foot long building elevation shall have at least twelve a half feet (fifty percent of twenty-five feet) of transparency in length).
 2. Windows shall begin thirteen to thirty inches above the sidewalk rather than continue down to street level. Large single paned windows over ten feet in width shall be divided into multiple panes to add human scale by dividing the vertical plane into smaller parts.
 3. Highly reflective or glare-producing glass with a reflective factor of .25 or greater is prohibited on all building facades. Exceptions to this prohibition may be granted for LEED certified buildings when documented as part of the application and requested as part of the land use application. Any glazing materials shall have a maximum fifteen percent

Comment [CAR2]: Reviewed through a Type II process?

Comment [pw3]: Changed to a requirement.

Comment [pw4]: Clarification

Title 17 - ZONING

Chapter 17.54 SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS

~~outside visual light reflectivity value. No exception shall be made for reflective glass styles that appear transparent when internally illuminated.~~

Comment [pw5]: Intent is to minimize glare from new commercial windows.

- B. A live/work dwelling is allowed instead of, or in addition to, a home occupation as defined by OCMC [17.04](#). The business portion of the dwelling shall be limited to the ground floor and may not exceed fifty percent of the square footage of the entire dwelling, excluding the garage or one thousand square feet whichever is the smaller number.
- C. The primary entrance to the business must be located on the primary street frontage. Alley access is required to provide refuse and recycling service and residential parking. If alley access cannot be provided an alternative parking and refuse and recycling service plan may be approved by the community development director if it meets the intent of the standards.
- D. The applicant must show that there is adequate on street or off-street parking for the proposed use. One parking space is required for every five hundred square feet of commercial, personal service, or office use or a portion thereof. For example, seven hundred square feet of commercial use requires two parking spaces. Adequate parking can be shown by meeting one of the following:
 - 1. Shared Parking. Required parking may be satisfied by the same parking facilities used jointly, to the extent that the owners or operators show that the need for parking facilities does not materially overlap (e.g., uses primarily of a daytime versus nighttime nature) or the live/work use is utilizing a parking space that is above the minimum parking requirement of the shared use, and that the shared parking facility is within one thousand feet of the potential uses, and provided that the right of joint use is evidenced by a recorded deed, lease, contract, or similar written instrument establishing the joint use.
 - 2. On-Street Parking. On-street parking dimensions for livework units shall conform to the standards set forth in OCMC 17.52010C.
 - 3. Onsite Parking. Parking spaces are provided onsite and meet the requirements of OCMC [17.52](#).-Offstreet Parking and Loading.
- E. The number of employees permitted onsite for employment purposes shall be limited to five persons at one time.
- F. The location of lots where live/work dwellings may be sited shall be specified on the subdivision plat (if applicable) and a deed restriction shall be placed on all units describing the restrictions placed upon these units. These include, but are not limited to, the following:
 - 1. The work use shall not generate noise exceeding 55-decibel level as measured at the lot line of the lot containing the live/work dwelling.
 - 2. No outside storage of materials or goods related to the work occupation or business shall be permitted. Solid waste associated with the work use shall be stored inside the building and can be set out no more than four hours before the solid waste pickup.
 - 3. No dust or noxious odor shall be evident off the premises.
 - 4. If the business is open to the public, public access must be through the front door and the business may not be open to clients or the public before seven a.m. or after eight p.m.



South End Concept Plan



Proposed Plan, Implementation and Adoption Schedule Updated October 24, 2013

Task	Responsibility	Due Date
Submit draft concept plan elements to COC	Consultant	July 22
Send draft concept plan to City and TAT	COC	August 12
Initiate implementation strategies work	Consultant	August 12
Submit draft implementation strategies to COC	Consultant	August 19
Send draft implementation strategies to City and TAT	COC	September 4
Submit consolidated City and TAT comments on draft concept plan and implementation strategies	City	September 30
Submit round #1 revised draft concept plan and implementation strategies	Consultant	October 8
Submittal of Pre-application Conference	City	October 4
CAT meeting #6	Consultant/City	October 15
Pre-application Conference	City	October 15
Submit final draft Concept Plan and Implementation Strategies (90%)	Consultant	October 24
Submittal of Legislative File "L-File"	City	October 24
DLCD Notice	City	October 24
Measure 56 Notice, L-File Complete	City	Not before October 24 No later than November 5
Comprehensive Plan and Map Amendments; Zoning Code Amendments	City	October 28
Staff report: Preliminary Findings Title 11 & Metro UGB Conditions Compliance Report	City	November 4
CAT Meeting #7	Consultant/City	November 4
Planning/City Commission Packet	City	November 5
Planning/City Commission Work Session	Consultant/City	November 12
Planning Commission Packet	City	November 18
Planning Commission Hearing #1	Consultant/City	November 25
Planning Commission Packet	City	December 2
Planning Commission Hearing #2	City	December 9
City Commission Packet	City	December 31
City Commission Hearing #1	Consultant/City	January 15, 2014*
City Commission Packet	City	January 26, 2014
City Commission Hearing #2	City	February 5, 2014
Final concept plan and implementation strategies	Consultant/City	February 24, 2014

*Assumes January 1 City Commission Meeting will be cancelled.

Appendix A

South End Concept Plan Existing Conditions Report

October 21, 2013

Cogan Owens Cogan, LLC

3J Consulting
Alta Planning + Design
DKS Consulting
FCS GROUP
Parametrix

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Chapter 1: Introduction

Project Overview

Oregon City is growing. U.S. Census data substantiates a significant increase in Oregon City's population over the past decade. The City grew by 24% (6,105 people) between 2000 and 2010, compared to just 11% in Clackamas County and 14% in the Tri-County region. Oregon City's households are changing too, with the median age has increasing from 32.7 years to 36.3 years, and average household size has falling from 2.60 to 2.54 over the past decade. The ethnic makeup of Oregon City is changing as well. The percentage of residents who identify themselves as white is decreasing (-0.8%) while the percentage of people identifying themselves as black (+0.2%), Asian (+0.9%) and Hispanic or Latino (+2.3%) is increasing. Oregon City is thus challenged maintaining the quality of life for those who live there today, while planning for future residents.

The City of Oregon City is preparing a concept plan for the South End urban growth boundary (UGB) expansion area. The Metropolitan Service District (Metro) requires the governing jurisdictions to adopt comprehensive plan provisions for areas brought into the UGB to guide the orderly and efficient conversion of uses from rural to urban. A "concept plan" sets the framework for eventual adoption of comprehensive plan policies and implementing ordinances by these governing jurisdictions. Following extensive public engagement, the South End Concept Plan will be adopted by the Oregon City's City Commission and reviewed by Metro and the Department of Land Conservation and Development (DLCD). The City Commission of Oregon City will then adopt the concept plan as an amendment to the current comprehensive plan and zoning code, which must comply with Metro code and DLCD requirements. The Concept Plan is being developed with guidance from a Community Advisory Team (CAT) and community participation. According to Metro's Title 11 guidance for urbanization and concept planning, elements of the South End Concept Plan will include land use, transportation, natural resources, parks and trails, public facilities and services, schools and financing.

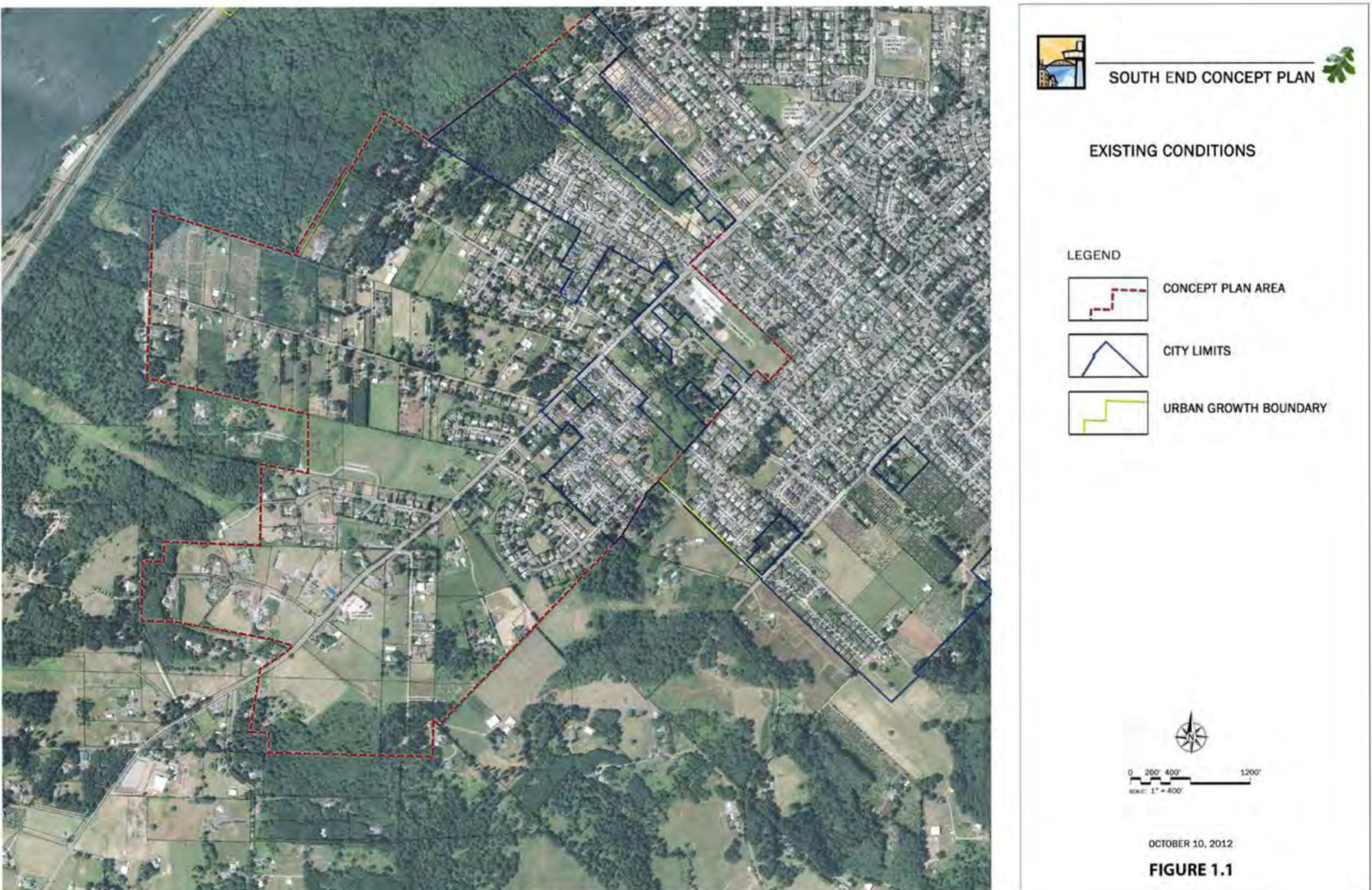
South End Concept Plan Study Area

The South End Concept Plan study area consists of 478 acres located south of Oregon City along South End Road. Approximately 188 acres were brought into the UGB when Metro amended the UGB in 2002. The other 290 acres were added to the UGB prior to 2002 and have not been annexed into the city. The South End Concept Plan process will consider an additional 133 acres currently within city limits for planning purposes, but will not be included in buildable land calculations. The planning area is 611 acres in total.

Purpose of Existing Conditions Report

The Existing Conditions Report is an important opportunity to review available data, create a shared understanding of the South End area today, and identify opportunities and constraints for future development. This analysis will inform the creation of the Concept Plan. Guided by City staff, the consulting team gathered, reviewed and assessed relevant background materials including plans, reports and maps. Having a baseline of information to inform the remainder of the planning process will be critical in order to take advantage of existing knowledge and gather new information efficiently.

Figure 1. South End Concept Plan Area



Chapter 2: Land Use

This chapter describes the current land uses, zoning, buildings, historic resources, and buildable land for the South End. The South End Concept Plan Area is approximately 611 acres in size. Of the total area, the plan consists of 133 acres which are currently annexed into the City of Oregon City and 478 acres which are currently located in unincorporated Clackamas County. This includes a 2002 expansion of the urban growth boundary over 191 acres, located at the southern and western edges of the planning area. The plan area is bordered by the City of Oregon City to the north and unincorporated Clackamas County to the east, west, and south.

Land Uses

The planning area contains 576 individually owned taxlots. Existing land uses within the planning area consist of several small farms, estate residential property, low-density residential housing, churches and the John McLoughlin Elementary School. There are no formalized office, commercial, retail, or industrial uses within the planning area. The closest significant commercial nodes are located northeast of the Concept Planning area at Warner Milne and Molalla Avenue or within the City of Canby's Downtown, located three miles to the south. The planning area is located approximately three miles south of downtown Oregon City.

The predominant land use in the concept plan area is low density residential subdivisions developed in the 1970s, interspersed with some limited farm and forest uses still exist. There are a few institutional land use consisting of the Jehovah's Witness Hall and McLoughlin Elementary School.

The majority of the housing within the plan area is located along the long access roads which intersect South End Road. At the southern end of the planning area is the South End Country Estates subdivision on Kelland Court. Lots here tend to be larger and more spread out than the northern end of the planning area. Moving north up South End Road leads to several county subdivisions which take access from South End at Navajo Way, Finnegan's Way, and South Parkland Court (Respectively, Navajo Hills Estates, Finnegan's Terrace No. 2, and South Park Estates). The subdivisions along these roads consist of half to quarter-acre single-family lots and are separated from one another by fields which have yet to develop and in some cases, are designated open space. For example, the Finnegan's Terrace subdivision's open space contains a series of trails and may contain some septic systems or drainage infrastructure which is serving the homes or roadways constructed within the neighborhood.

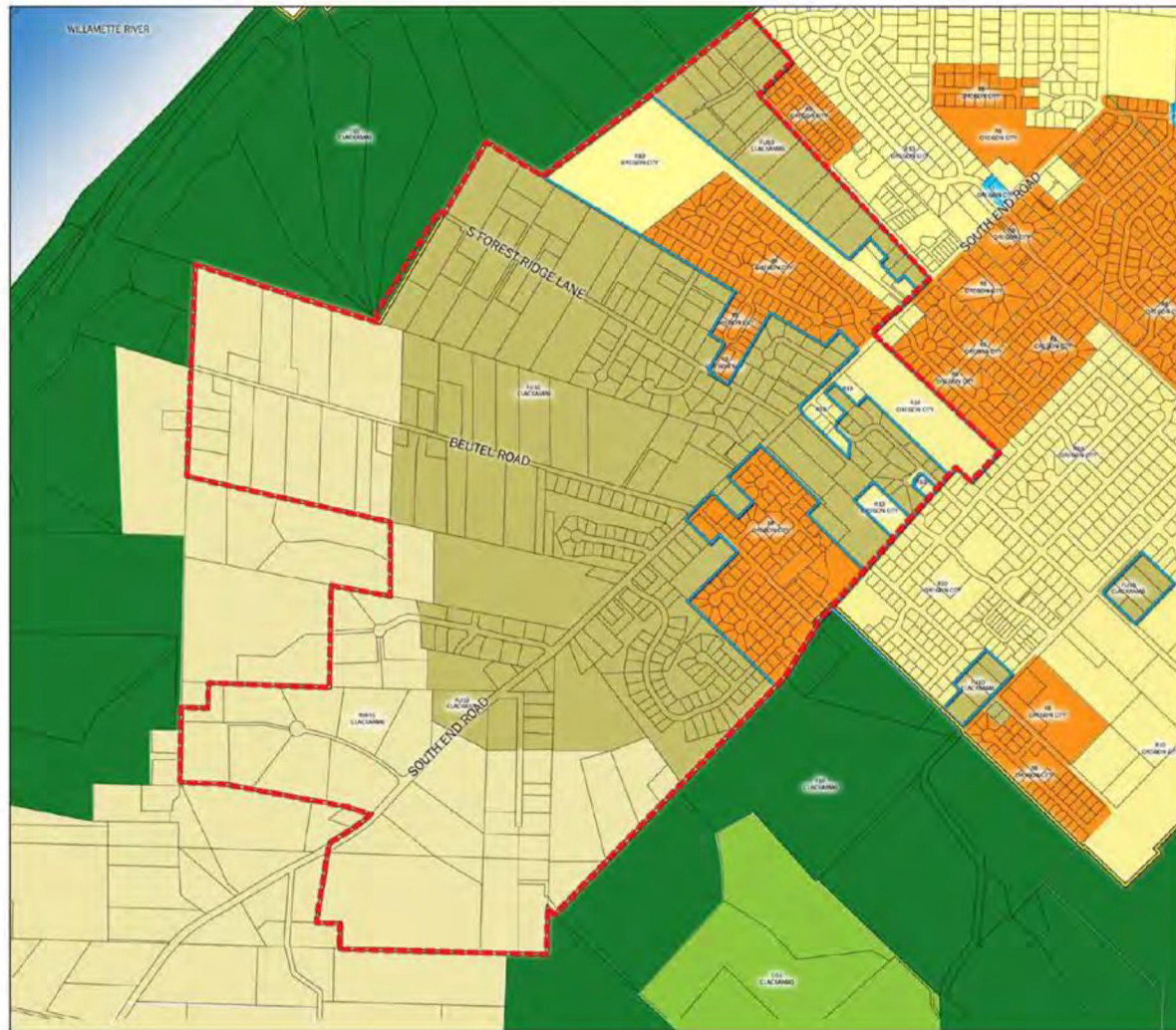
Buetel Road and Forest Ridge Road are long straight spine roads which both run to the east away from South End Road. The housing along these roads consist of a mix of some acre plus rural estate styled housing and several dozen quarter to half acre lots in various configurations. The homes are a mixture of newer and older styles with a predominance of single-story, single-family houses with side and rear yard outbuildings.

From Forest Ridge Road south, the northern end of the planning area is comprised of a network of county subdivisions interspersed with larger acreage lots developed primarily

between the 1970s through the 1990s. Fingers of incorporated city subdivisions interweave with these unincorporated areas. For example, one notable city subdivision is the Merchant Court development with several dozen eighth acre lots with newer homes surrounding a central open space. The Merchant Court subdivision is unusual compared to surrounding areas and creates interesting a landmark within the neighborhood. The Merchant park open space appears to provide a drainage function in addition to being an attractive open space feature.

Development and Development Potential

The lands within the planning area which fall within the City's boundary fall within Oregon City's single family residential zoning districts. Lands within the planning area which fall under the County's jurisdiction are listed as one of three county zoning designations. Table 2.1 describes the existing zoning within the planning area.



SOUTH END CONCEPT PLAN



FIGURE 2.1
EXISTING ZONING

LEGEND



CONCEPT PLAN AREA



CITY LIMITS - OREGON CITY



OREGON CITY R10



OREGON CITY R8



OREGON CITY I



CLACKAMAS COUNTY
RRFF5



CLACKAMAS COUNTY
FU10



CLACKAMAS COUNTY
TBR



CLACKAMAS COUNTY
EFU



0 200 400 1200'
SCALE: 1" = 800' @ 11x17

NOVEMBER 20, 2012

Table 2.1. Zoning within the Planning Area, Oregon City South End, 2012

Zoning	Abbreviation	Jurisdiction	Acres
R-8	Single Family Dwelling District 8,000 SF Minimum	City of Oregon City	62.0
R-10	Single Family Dwelling District, 10,000 SF Minimum	City of Oregon City	43.2
FU-10	Future Urban 10-Acre District	Clackamas County	314.1
RRFF-5	Rural Residential Farm Forest 5- Acre District	Clackamas County	191.5

Source: City of Oregon City Municipal Code, Title 17 / Clackamas County Zoning and Development Ordinance

The lands which have already been annexed into the City have been assigned either an R8 or an R10 zoning designation. The areas of the plan which are located within the City and the approximate density within each zoning area are shown in Table 2.2.

Table 2.2. City Subdivisions within Oregon City South End, 2012

Zone	Adjusted Acreage	Units	Density
R-10	5.9	14	2.3 Units per Acre
R-8	62.0	211	3.4 Units per Acre

*Area of the zoning has been adjusted to remove the John McLoughlin School and a large parcel containing a wetland within the R-10 zoning area.

The lands within the County's FU-10 and RRFF-5 districts contain five small to medium sized subdivisions: Finnegan's Terrace Subdivision, Navajo Hills Estates, South Park, Sunnyridge Estates, and the South End Country Estates. The Finnegan's Terrace, Sunnyridge, South Park, and Navajo Hills developments have been constructed to near urban levels and have little potential for future subdivision or development. The lots created within the South End Country Estates development are almost five acres or larger in size and have the potential to redevelop. Table 2.3 describes the recorded subdivisions and number of developed parcels within each of the County's zoning districts.

Table 2.3. Density within County Subdivisions, Oregon City South End, 2012

Subdivision	Zoning	Area (Acres)	Units	Units/Acre
Finnegan's Terrace	FU-10	31.3	63	2.0 Units per Acre
Navajo Estates	FU-10	8.7	12	1.3 Units per Acre
South Park	FU-10	13.3	32	2.4 Units per Acre
Sunnyridge Estates	FU-10	16.5	20	1.2 Units per Acre
South End Country Estates	RRFF-5	35.8	8	0.2 Units per Acre

Source: The Oregon Map - Taxmaps (www.ormap.net)

The lands within the County's FU-10 and RRFF-5 Districts have the highest development potential within the plan area. Some limitations are present due to lot geometry, road access and orientation however, the majority of any new development is likely to occur within these areas. The gross amount of land with development potential within the County's FU-10 and RRFF-5 Districts is approximately 374 acres.

Buildable Lands Analysis

For the purposes of this report, the methodologies for the identification of buildable lands within the planning area have been incorporated, in part, from the "Planning for Residential Growth: A Workbook for Oregon's Urban Areas". The following definitions describe the various categories of lands identified within the planning area. These definitions have been applied to the lands within the planning area to prepare an estimate of the buildable lands.

Buildable Lands

Buildable lands are considered to be lands within urban and urbanizable areas that are suitable, available, and necessary for residential uses. Buildable lands include both vacant and developed land likely that is likely to be redeveloped (ORS 197.295(1)). Lands defined as unbuildable within the Metro urban growth boundary are those that are not severely constrained by natural hazards (Statewide Planning Goal 7) or subject to natural resource protection measures (Statewide Planning Goals 5 and 15). Goal 5 resources within the planning area generally include lands with wetlands, streams, or other natural resources and vegetative corridors or buffers adjacent to these resources. Publicly owned land is generally not considered available for residential use. Land with slopes of 25 percent or greater unless otherwise provided for at the time of acknowledgement and land within the 100-year floodplain is generally considered to be unbuildable (OAR 660-08-005(2)).

Developed Land

Developed lands are considered to be lands within the urban and urbanizable areas which have already been built upon. For the purposes of this study, this includes lands which have already been subdivided and constructed with single family homes. This also includes subdivisions that were approved by the county and subsequently annexed into the City and subdivisions approved by the County which have not yet been annexed. Generally, subdivisions which resulted in the creation of lots which are under one acre in size have been considered to be developed. Lands within subdivisions which have been specifically set aside for utilities, communal open space, or for septic drain fields have also been included as developed land as these lands are unlikely to redevelop, even with the introduction of public sewer systems.

Net Buildable Land

Net buildable land has been defined as the gross buildable vacant land minus unbuildable lands minus lands needed for public facilities. The amount of land estimated to be necessary for public facilities has been estimated to be 25% as this is a generally acceptable deduction for the estimation of lands which will be required for infrastructure, roads, and stormwater management facilities. This deduction generally allows for the inclusion of roads and rights-of-way built to City standards and ponds associates with stormwater management facilities. No assumptions have been made for the preservation of parks or open spaces within the 25% deduction.

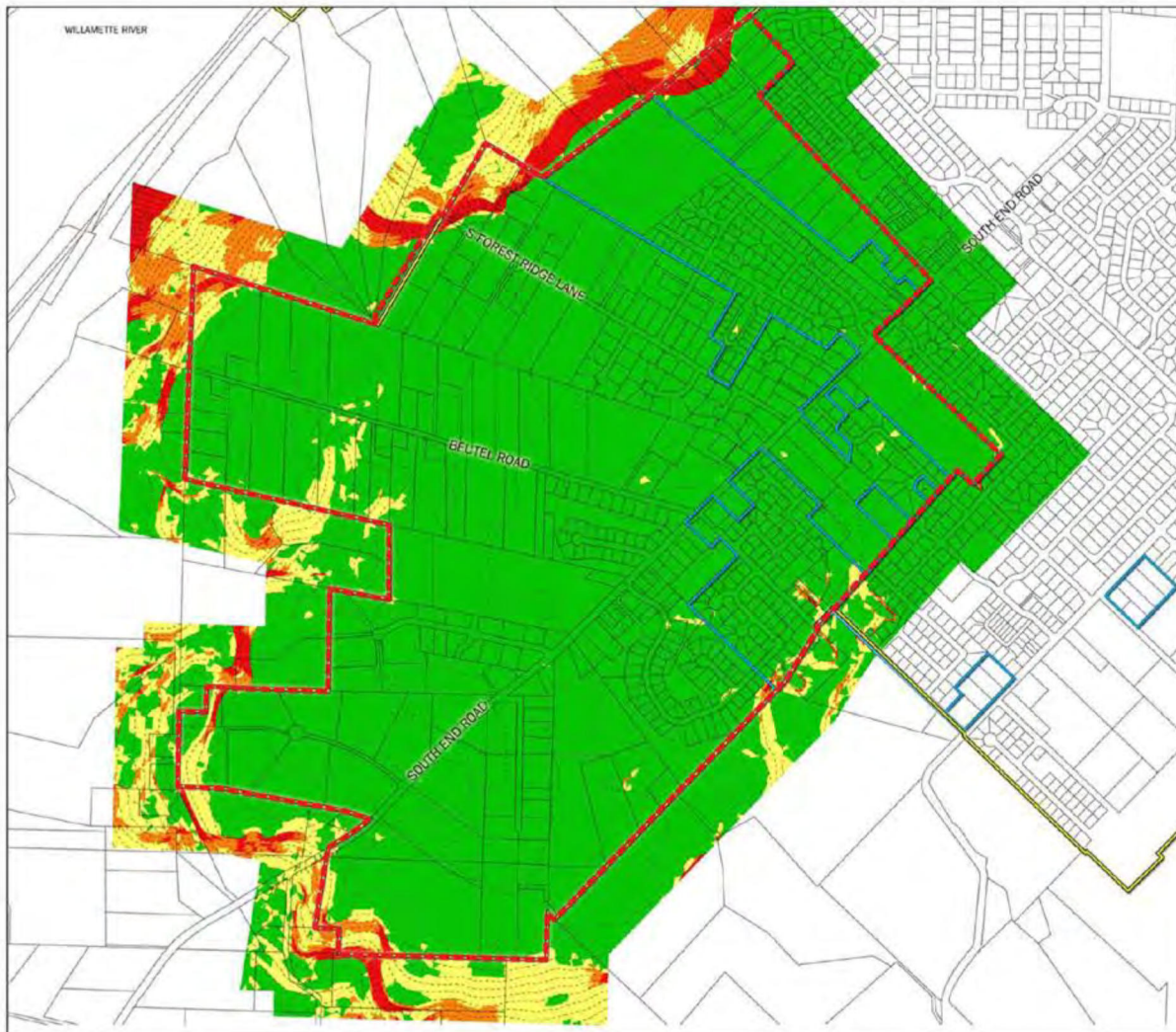
Unbuildable Land

Unbuildable lands are those areas of the planning area which have slopes greater than 25 percent, lands which are likely to be encumbered with significant natural resource protection overlays, and lands which fall within the flood plain. Also included within the unbuildable

land areas are lands which are areas within the planning area which are encumbered with powerline easements.

Table 2.4 has been prepared to illustrate the amount of buildable land within the planning area and to ensure adequate numbers of needed housing units within Oregon City's portion of the regional Urban Growth Boundary.

According to the State Metropolitan Housing Rule (OAR 660-007), Oregon City must provide for an overall density of eight or more dwelling units per net buildable acre for lands which were located within the Urban Growth Boundary before 2002, or provide justification to the State Department of Land Conservation and Development for an alternative density. For the more recent lands which were added to the Urban Growth Boundary, the plan must provide for an overall density of ten or more dwelling units per net buildable acre. Metro has indicated that these densities may be distributed logically across the planning area as part of the planning process to show compliance with Title 11 (See Chapter __, Implementation).

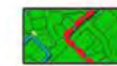


SOUTH END CONCEPT PLAN



FIGURE 2.2
SLOPE ANALYSIS

LEGEND



CONCEPT PLAN AREA



CITY LIMITS - OREGON CITY



0-10% SLOPES



10-20% SLOPES



20-30% SLOPES



30% + SLOPES



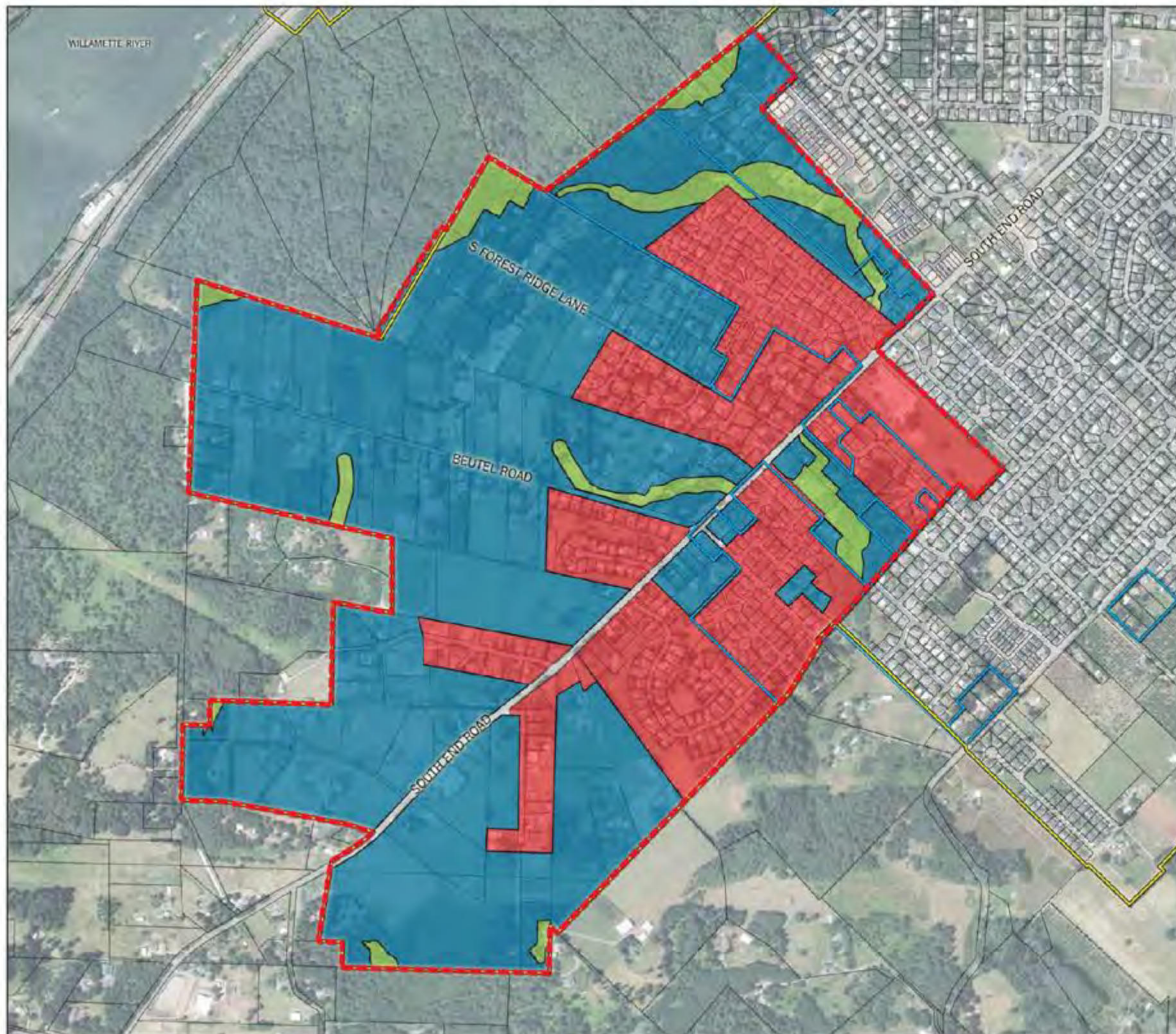
0 200' 400' 1200'
SCALE: 1" = 800' @ 11x17

NOVEMBER 20, 2012

Table 2.4. Buildable Areas, Oregon City South End, 2013

Gross Area outside of City Limits	498.7 Acres
Developed Land	101.8 Acres
Unbuildable Land	27.7 Acres
Buildable Land	369.2 Acres
New Roads and Utilities (25%)	92.3 Acres
Net Buildable Area	283 Acres

The proposed methodology for the calculation of density blends all of the vacant and developable land within the area, effectively excluding lands which are unbuildable due to preliminary resource mapping and lands which have already been subdivided into single family residential neighborhoods. From this equation, the buildable lands identified within the plan are adjusted through a reduction of the estimated land required for infrastructure, new roads, and stormwater management facilities to arrive at an estimated net buildable area. It is worth noting that the lands within the two major powerline easements (the east/west Portland General Electric Easement and the east/west Bonneville Powerline Easement) have been removed from the buildable lands estimate. The 283 net buildable acres identified in this preliminary analysis are the maximum acres projected to be available for development.

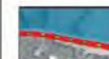


SOUTH END CONCEPT PLAN



FIGURE 2.3
BUILDABLE LANDS ANALYSIS

LEGEND



CONCEPT PLAN AREA



CITY LIMITS - OREGON CITY



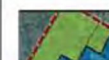
URBAN GROWTH BOUNDARY



POTENTIALLY BUILDABLE
LAND



DEVELOPED LAND



VACANT BUT ENVIRONMENTALLY
CONSTRAINED LAND



0 200' 400' 1200'
SCALE: 1" = 800' @ 11x17

NOVEMBER 20, 2012

Chapter 3: Transportation

This chapter summarizes the existing transportation conditions for all planning area intersections. Included is an inventory of the existing transportation facilities, analysis of the recent crash history, and an operational analysis of Plan area intersections. The city is required to update all public facilities plans, including the 2013 Transportation System Plan (TSP).

In updating the TSP, the impact of the increased vehicle trip generation resulting from additional land development within the study area on the surrounding transportation system will be evaluated through the year 2035. Any improvements needed to the transportation system to maintain adequate operations will be identified for incorporation into the TSP.

The following ten intersections have been identified as planning area intersections, with their intersection control listed identified in parenthesis below:

1. McLoughlin Boulevard (Highway 99e)/South 2nd Street (signalized)
2. McLoughlin Boulevard (Highway 99e)/South End Road (unsignalized)
3. South End Road/South 2nd Street (all-way stop)
4. South End Road/Warner Parrott Road (all-way stop)
5. South End Road/Lafayette Avenue-Partlow Road (unsignalized)
6. South End Road/Beutel Road-Parrish Road (unsignalized)
7. Central Point Road/Partlow Road (unsignalized)
8. Central Point Road/McCord Road (unsignalized)
9. Warner Parrott Road/Central Point Road (unsignalized)
10. Warner Parrott Road-Warner Milne Road/Linn Avenue-Leland Road (signalized)

Existing Transportation Infrastructure

Evaluating the transportation impacts of potential new land development requires an understanding of the current transportation facilities in this area. Much of the land included within and around the study area is currently used for rural residential and agriculture, and until 2002 was located outside of the UGB. As a result, transportation facilities do exist but many are not constructed to urban standards. Lands developed in the County are required to meet rural roadway design standards, which typically do not include elements such as pedestrian or bicycle facilities as well as other more common City infrastructure (e.g., storm drains, water, sewer). When these former County lands are annexed to the City, the rural road bring with them challenges for providing more complete street services that are expected in urban areas. This section includes descriptions of existing infrastructure available to serve pedestrian, bicycle, transit and motor vehicle modes of travel.

Roadways

Located at the top of Canemah Bluff, the planning area is characterized by disconnected streets with large block lengths despite the relatively flat terrain. The only street providing for higher capacity motor vehicle movement through the study area is South End Road, which is classified as a Minor Arterial by city standards. This street runs north-to-south connecting the study area to McLoughlin Boulevard (Highway 99E) at two locations, located roughly two miles north and south of the study area. The southerly route towards Canby has a

connection at 99E that is designed for rural operating conditions, and may need to be upgraded to adequately serve higher levels of traffic. Providing additional connections to McLoughlin Boulevard from the west edge of the study area would be very challenging for several reasons, including the steep slope, natural habitats and environmental constraints, and the fact that this is regional park land owned by Metro.

Drivers wishing to access areas east of the study area, including OR 213, Clackamas Community College and the Clackamas County Red Soils Campus, are accommodated via Warner Parrott Road and Partlow Road. Warner Parrot and Partlow roads connect to South End Road north of the Plan area. South of Partlow Road, there are no arterial or collector street connections to areas east of the study area.

Besides South End Road, there are limited north-to-south circulation options for local travel. Most of the remaining streets in the planning area are non-through routes and connect directly to South End Road. These streets, including Rose Road, Forest Ridge Lane, Beutel Road, Filbert Drive, Parrish Road and Salmonberry Drive, provide east-to-west circulation between South End Road and the abutting land uses and generally have less capacity than South End Road. Also, there are several roads still under County jurisdiction that have not been fully transferred over to the City jurisdiction, including Salmonberry Drive.

The 2013 Oregon City TSP Update identified these constraints, and called for an extension of Parrish Road (2-lanes) over the creek between Pennys Way and Kolar Drive to provide additional east-to-west circulation between South End Road and Central Point Road. It is acknowledged that any new street crossing over a creek will have to comply with environmental review or and other agency requirements before any construction occurs. The TSP also identified a need for a parallel north-to-south route to the east and west of South End Road. The TSP recommendation included extending Deer Lane south to connect with Forest Ridge Lane, Beutel Road, and South End Road (south of Beutel Road). The Deer Lane extension would then cross South End Road and travel to the south and east of Finnegans Way terminating at the Parrish Road extension¹. The major characteristics of the roadways in the study area are summarized in Table 3.1, with lane configurations and traffic controls for study intersections illustrated later in this section in Figure 3.1.

¹ 2013 Oregon City TSP Update, Planned Street Extensions, Financially Constrained Transportation System.

Table 3.1: Study Area Roadway Characteristics, South End, 2012

Roadway (limits)	Classification*	Cross section	Posted Speed
South End Road (Rose Road to just northeast of May Road)	Residential Minor Arterial	2 lanes	40 mph
Beutel Road (South End Road to 0.50 miles west of South End Road)	Residential Minor Arterial	2 lanes	25 mph
Beutel Road (0.50 miles west of South End Road to western terminus)	Residential Collector	2 lanes	25 mph
Forest Ridge Lane (South End Road to western terminus)	Residential Local Street	2 lanes	25 mph
Parrish Road (South End Road to just southeast of Pennys Way)	Residential Collector	2 lanes	25 mph
Rose Road (South End Road to Deer Lane)	Residential Collector	2 lanes	25 mph
Salmonberry Drive (South End Road to just southeast of Columbine Court)	Residential Local Street	2 lanes	25 mph

Source: *2013 Oregon City Transportation System Plan.

Pedestrian/Bicycle

South End Road and Salmonberry Drive are generally the only routes that provide dedicated bicycle and pedestrian access in and out of the Plan area. These two streets constitute the bicycle and pedestrian environment together with several local streets in the project area. Table 4.2 shows the roadways with pedestrian and bicycle facilities.

South End Road lacks continuous sidewalks, with pedestrians generally never able to walk for more than 300 feet at a time without having to cross the street or walk along the edge of the street. While motor vehicle traffic volumes are not very high (4,500 to 7,500 vehicles per day), the posted speed is 40 miles per hour and this section of South End Road abuts John McLoughlin Elementary School. This school is a significant source of walking and driving trips, particularly around the start and ending hours of weekday school sessions. Also during these periods, the speed limit on South End Road is reduced near the school to 20 miles per hour. A direct sidewalk connection is not available to connect neighborhoods along South End Road north and south of the school.

Continuous bike lanes along South End Road north of Beutel Road connect the study area to Warner Parrott Road. As an east-to-west through street with bike lanes, Warner Parrott Road is an important connection for bicycle travel in Oregon City, linking bicyclists to other key routes in the City, including Linn Avenue, Beavercreek Road and Molalla Avenue.

Besides South End Road, Salmonberry Drive offers the only additional connection for pedestrians and bicyclists traveling in and out of the study area. It lacks sidewalks for nearly a quarter-mile between South End Road and Columbine Court and provides no bike facilities. Newer development east of Columbine Court constructed local streets with sidewalks on both sides, providing an indirect connection for pedestrians and bicyclists between the study area, and Central Point Road and Partlow Road.

Most of the remaining streets in the project area generally lack any accommodation for bicycle or pedestrian users, with the exception of some local streets with sidewalks in the newer neighborhoods along Parrish Road, Rose Road, and directly across South End Road from John McLoughlin Elementary School. A marked crosswalk with a pedestrian activated signal provides a safe connection across South End Road for pedestrians directly in front of John McLoughlin Elementary School. In addition, a shared-use path connects South End Road with Sunblaze Drive, just to the north of Rose Road.

The 2013 Oregon City TSP Update proposes sidewalks and bike facilities along several streets in the study area, including South End Road, Beutel Road, Rose Road and Parish Road. It also proposed several shared-use paths that would accommodate both pedestrians and bicyclists in the study area. The TSP update process is expected to conclude in Spring 2013.

Table 3.2: Existing Pedestrian and Bicycle Characteristics

Roadway (limits)	Sidewalks	Bike Facilities
South End Road (Rose Road to Salmonberry Drive)	Intermittent sidewalks	Bike Lanes
South End Road (Salmonberry Drive to Beutel Road)	None	Bike Lanes
South End Road (Beutel Road to just northeast of May Road)	None	None
Beutel Road (South End Road to western terminus)	None	None
Forest Ridge Lane (South End Road to western terminus)	None	None
Parrish Road (South End Road to just southeast of Pennys Way)	Both sides southeast of Linda Drive	None
Rose Road (South End Road to Sprite Way)	Northeast side	None
Rose Road (Sprite Way to Deer Lane)	None	None
Salmonberry Drive (South End Road just southeast of Columbine Court)	None	None

Source: *2013 Oregon City Transportation System Plan.

Transit

While transit service is not provided ²in the study area, it is provided in Oregon City by TriMet via seven fixed bus routes connecting Oregon City to the rest of the Portland Metropolitan area. An Americans with Disabilities Act (ADA) paratransit service is also available within the study area. In addition, seasonal transit service is provided to residents and tourists via the Oregon City Trolley, and regional service is provided via the Canby Area Transit system, South Clackamas Transportation District, and Amtrak. Also, the Oregon City Pioneer Community Center runs a transit bus service for seniors to access essential services through a contract with Ride Connect, which is funded with US HUD CDBG grant funding.

Bus stops in Oregon City are located along Main Street, Railroad Avenue, 2nd Street, High Street, 5th Street, Linn Avenue, 7th Street, Molalla Avenue, Division Street, 9th Street, 16th Street, Jackson Street, Abernethy Road, Holcomb Boulevard, Longview Way, Warner Milne Road and Beaver Creek Road. Transit users in the study area are nearly two miles from the closest bus stop at the Warner Parrott Road-Warner Milne Road/Linn Avenue-Leland Road intersection (greater than the typical trip length for the average walking or biking trip). Park and ride facilities are provided for transit users at two locations in Oregon City, near the Linn

² TriMet discontinued service on South End Road in 2009, due to low ridership and budget reductions for local bus services.

Avenue/Williams Avenue intersection (just north of Warner Milne Road) and at Clackamas Community College.

Existing activity levels for each mode of transportation

Pedestrian, bicycle, and motor vehicle activity at study intersections was reviewed during the evening peak period (3:00 p.m. to 6:00 p.m.) on a typical weekday in the late spring of 2011³ or fall of 2011 and 2012⁴.

Pedestrian activity along South End Road through the study area was generally low during the evening peak period, with no more than three pedestrians traveling through the South End Road/Beutel Road-Parrish Road intersection during a single one-hour period. Pedestrian activity was generally highest outside of the study area at the Warner Parrott Road intersection with South End Road, with over 35 pedestrian crossings in the one-hour period between 4:50 p.m. and 5:50 p.m.

Bicycle volumes along South End Road through the study area were generally low during the evening peak period, with no more than one bicyclist traveling through the South End Road/Beutel Road-Parrish Road intersection during an observed single one-hour period. The highest volumes occurred at the Warner Parrott Road-Warner Milne Road/Linn Avenue-Leland Road intersection (outside of the study area), with hourly volumes ranging between five and ten cyclists.

Motor vehicle volumes at study intersections peak during the evening between 4:40 pm and 5:10 pm, but generally vary depending on the time of year. Traffic counts taken during off peak times in the year (like those collected for this study) must often be adjusted to account for seasonal variations in travel. For this study, the methodology from the ODOT Analysis Procedures Manual⁵ was used to determine the 30th highest annual hour volume (30 HV) for the study intersections. The 30 HV is commonly used for design purposes and represents the level of congestion that is typically encountered during the peak travel month.

To determine when the 30th highest annual hour volumes occur, DKS examined data from Automatic Traffic Recorder (ATR) stations that record highway traffic volumes year-round. If no on-site ATR is present, one with similar characteristics can be identified using ODOT's ATR Characteristics Table. If these do not produce a similar ATR with average annual daily traffic volumes (AADT) within 10% of study area volumes, the seasonal trend method should be used. The seasonal trend method averages seasonal trend groupings from the ATR Characteristics Table.

For the study area, no ATRs are located on-site, and the ATR Characteristics Table did not produce matches within 10% of the study area AADT volumes. Therefore, the seasonal trend method was utilized to develop seasonal factors⁶. The adjusted weekday pm peak hour volumes developed for the study intersections are displayed in Figure 3.1

³ Based on counts conducted April 13th and April 21st, 2011.

⁴ Based on counts conducted September 7th, 2011 and October 3rd, 2012.

⁵ *Analysis Procedures Manual*, Oregon Department of Transportation, July 2009.

⁶ Seasonal factors were previously applied to count data obtained from the 2013 Oregon City and Clackamas County TSP, therefore no adjustments were made at these intersections.

Performance of the current transportation system

The transportation infrastructure in the study area was evaluated with a variety of measures in order to document the existing deficiencies of the transportation system. Information reviewed included safety of the roadways and intersections and motor vehicle operations.

Safety

Safety of the roadways and intersections in the study area was assessed through collision data and field observations to identify deficiencies. The data along the roadways and intersections was reviewed to identify potential patterns for motor vehicle, pedestrian, and bicyclist collisions.

DKS obtained collision data from the past five years (2007 to 2011) from the Oregon Department of Transportation (ODOT) for all roadways in the study area, in addition to the 10 study intersections. Over the past five years, 55 collisions, or an average of 11 per year, were identified. A majority of these (43 of the 55) were either rear-end or turning type and most occurred at intersections outside of the study area, with only three of the 55 collisions occurring along roadways within the study area.

The severity of the collisions was generally low, with most (42 of the 55 collisions) involving either property damage only (no injuries) or minor injuries. There were two collisions involving major injuries, eleven involving moderate injuries, and no fatalities over the past five years. All of the major or moderate injury collisions occurred along McLoughlin Boulevard (OR 99E), at the South 2nd Street and South End Road intersections.

Pedestrian/Bicycle Collisions: there were no crashes involving pedestrians and one involving a bicyclist over the past five years in the study area (2007 to 2011). A bicyclist was involved in a crash on South End Road near Salmonberry Drive in 2009, suffering minor injuries.

The total number of crashes experienced at an intersection is typically proportional to the number of vehicles entering it. Therefore, a crash rate describing the frequency of crashes per million entering vehicles (MEV) is used to determine if the number of crashes should be considered high. Using this technique, a crash rate of 1.0 MEV or greater is commonly used to identify when further investigation is warranted.

As shown in Table 3.3, crash rates calculated (based on the past five years of data) at all 10 intersections reviewed are well below the 1.0 MEV threshold, indicating the frequency of collisions is typical for the volume of traffic served. There were no collisions over the five-year period at the South End Road/ Beutel Road-Parrish Road intersection and only two at the South End Road/Lafayette Avenue-Partlow Road, Central Point Road/Partlow Road and Central Point Road/McCord Road intersections.

The OR 99E/South End Road intersection had the highest crash rate of the intersections reviewed, although well below the 1.0 MEV threshold, with 19 collisions over the five-year period. Most of the collisions at this intersection involved drivers failing to yield the right-of-way when making a turn. Of the 11 turning type collisions, 10 involved drivers turning left

onto southbound OR 99E from South End Road. It was noted during field observations that adequate sight distance was available at this intersection.

Table 3.3. Crash Rates, South End, 2012

Intersection	Total Collisions (2007 to 2011)	Collision Severity		Collision Rate (MEV)
		Property Damage Only	Injury	
McLoughlin Boulevard/ South 2 nd Street	12	6	6	0.27
McLoughlin Boulevard/ South End Road	19	7	12	0.55
South End Road/ South 2 nd Street	6	1	5	0.31
South End Road/ Warner Parrott Road	4	2	2	0.19
South End Road/ Lafayette Avenue-Partlow Road	2	2	0	0.12
South End Road/ Beutel Road-Parrish Road	0	0	0	0.00
Central Point Road/ Partlow Road	2	1	1	0.19
Central Point Road/ McCord Road	2	1	1	0.19
Warner Parrott Road/ Central Point Road	5	1	4	0.21
Warner Parrott Road-Warner Milne Road/ Linn Avenue-Leland Road	3	1	2	0.08

Source: ODOT Crash Analysis Unit for reported incidents between 2007 and 2011.

Intersections

Motor vehicle operations were evaluated by analyzing the performance of the ten intersections reviewed. Two common measures of intersection performance are level of service (LOS) and volume-to-capacity (v/c) ratios.

Level of service (LOS) is similar to a report card rating (A through F) and is 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 long queues and delays.

Volume-to-capacity (v/c) ratios are decimal representations (between 0.0 and 1.0) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic flow rate by the hourly

capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.0, congestion increases and performance is degraded. If the ratio is greater than 1.0, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

All study intersections must operate at or below the adopted performance measures or mitigation could be necessary to approve future growth. The adopted intersection mobility targets vary by jurisdiction of the roadways. Two of the intersections reviewed are under state jurisdiction (along McLoughlin Boulevard), while the remaining eight intersections are under the jurisdiction of Oregon City. All intersections under State jurisdiction must comply with the v/c ratios in the 1999 Oregon Highway Plan (OHP), while intersections under City jurisdiction must comply with the v/c ratios in the 2013 Transportation System Plan (TSP). Both the OHP and TSP require a v/c ratio of 0.99 to be met at the intersections reviewed during the evening peak hour.

Motor vehicle conditions were evaluated at the 10 intersections reviewed during the 30 HV (i.e., weekday p.m. peak hour in August). The evaluation utilized 2000 Highway Capacity Manual methodology for signalized and unsignalized intersections.⁷ During this period, all study area intersections operate within the adopted mobility targets, generally with v/c ratios of 0.65 or less as shown in Table 3.4. Only the South End Road/ Warner Parrott Road and Warner Parrott Road-Warner Milne Road/ Linn Avenue-Leland Road intersections operate with v/c ratios above 0.65, at 0.87 and 0.73 respectively. In addition, the Warner Parrott Road/ Central Point Road intersection is operating with a level of service F. The side street at this intersection (Central Point Road) generally experiences high delay due to steady volumes on the uncontrolled roadway (Warner Parrott Road). This approach typically requires more time for an acceptable gap in traffic to make a left turn onto the mainline, therefore, the delay of the side street is high.

⁷2000 *Highway Capacity Manual*, Transportation Research Board, Washington DC, 2000.

Table 3.4. Motor Vehicle Conditions, South End, 2012

Intersection	Volume/ Capacity	Delay (seconds)	Level of Service
McLoughlin Boulevard/ South 2 nd Street*	0.65	15.4	B
McLoughlin Boulevard/ South End Road**	0.53	19.0	A/C
South End Road/ South 2 nd Street***	0.54	11.8	B
South End Road/ Warner Parrott Road***	0.87	25.0	C
South End Road/ Lafayette Avenue-Partlow Road**	0.44	34.3	A/D
South End Road/ Beutel Road-Parrish Road**	0.07	13.6	A/B
Central Point Road/ Partlow Road**	0.29	12.6	A/B
Central Point Road/ McCord Road**	0.18	12.8	A/B
Warner Parrott Road/ Central Point Road**	0.41	108.9	A/F
Warner Parrott Road-Warner Milne Road/ Linn Avenue-Leland Road*	0.73	32.5	C

Source:

Bolded Red and Shaded indicates intersection exceeds v/c mobility target or operates with a Level of service "F"

Note: *Unsignalized intersection; **All-way stop intersection; ***Signalized intersection

For Signalized and Unsignalized intersections:

Delay = Average Stopped Delay per Vehicle (sec) Delay = Average Stopped Delay per Vehicle (sec)

for All Movements Worst Movement

LOS = Level of Service of Intersection LOS = Level of Service of Major Street/Minor Street

V/C = Volume-to-Capacity Ratio of Intersection V/C = Volume-to-Capacity Ratio of Worst Movement

For All-way Stop Intersections:

Delay = Average Stopped Delay per Vehicle (sec)

for All Movements

LOS = Level of Service of Intersection

V/C = Volume-to-Capacity Ratio of Worst Movement

Planned improvements

The current Oregon City TSP identifies a number of planned transportation improvements for the South End area. These include intersection, street, sidewalk and bike lane management, extensions and expansions. Table 3.5 lists 2013 TSP Financially Constrained Improvements for the South End Study area. Maps of citywide planned improvements are found in Appendix A.

Table 3.5. Financially Constrained Transportation System

Project #	Project Description	Project Extent	Project Elements	Priority
Driving Solutions (Intersection and Street Management)				
D32	South End Road/Warner Parrott Road Operational Enhancement	South End Road/Warner Parrott Road	Install a traffic signal with dedicated left turn lanes for the South End Road approaches to Warner Parrott Road	Medium-term
D33	South End Road/Lafayette Avenue-Partlow Road Operational Enhancement	South End Road/Lafayette Avenue-Partlow Road	Install a single-lane roundabout	Medium-term
D41	South End Road/Buetel Road Extension Operational Enhancement	South End Road/Buetel Road Extension	Install a single-lane roundabout	Medium-term
D42	South End Road/Deer Lane Extension Operational Enhancement	South End Road/Deer Lane Extension	Install a single-lane roundabout	Long-term
Driving Solutions (Street Extensions)				
D51	Deer Lane extension	Rose Road to Buetel Road	Extend Deer Lane from Rose Road to Buetel Road as a Residential Collector. Add a sidewalk and bike lane to the east side of the street, with a shared-use path to be added on west side per project S32.	Long-term
D52		Buetel Road to Parrish Road	Extend Deer Lane from Buetel Road to Parrish Lane as a Residential Collector. Add a sidewalk and bike lane to the east/north side of the street, with a shared-use path to be added on west/south side per project S33. Create a local street connection to Finnegans Way Install a roundabout at South End Road (per project D42).	Long-term
D61		Meyers Road to UGB (north of Loder Road)	Extend Meadow Lane from the Meyers Road Extension to the UGB (north of Loder Road) as an Industrial Collector	Medium-term
D65	Parrish Road Extension	From Parrish Road east to Kolar Drive	Complete the gap between Parrish Road as a Constrained Residential Collector.	Long-term
Driving Solutions (Street and Intersection Expansions)				
D89	South End Road Upgrade	Partlow Road-Lafayette Road to UGB	Improve to Residential Minor Arterial cross-section	Medium-term
Walking Solutions				
W47	South End Road (south of Partlow)	Partlow Road to Buetel Road	Complete sidewalk gaps on both sides of the street	Included with project

Table 3.5. Financially Constrained Transportation System

Project #	Project Description	Project Extent	Project Elements	Priority
	Sidewalk Infill			D89
W48		Buetel Road to UGB	Complete sidewalk gaps on both sides of the street	Included with project D89
W54	South End Road (north of Partlow) Sidewalk Infill	Partlow Road to Barker Avenue	Complete sidewalk gaps on both sides of the street	Short-term
Biking Solutions				
B42	South End Road (south of Partlow) Bike Lanes	Buetel Road to UGB	Add bike lanes to both sides of the street	Included with project D89

Chapter 4: Public Infrastructure and Services

This chapter describes the existing services for stormwater, water, sanitary sewer, energy, police services, fire and emergency services, and school facilities.

Stormwater

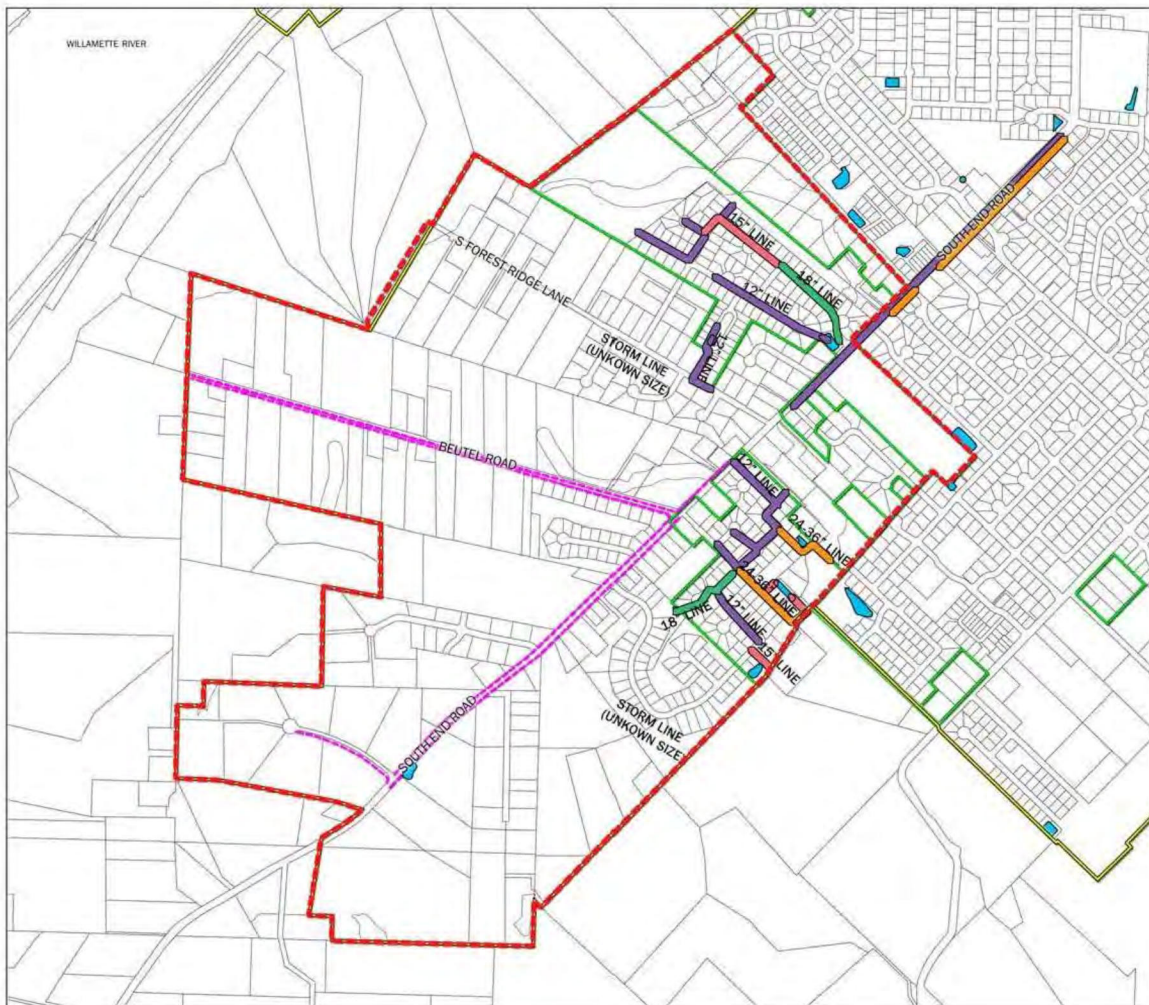
The planning area falls within the Amanda Court, Allen Court, and South End drainage basin areas as shown in the City of Oregon City Drainage Master Plan (January 1988). These basins are part of tributaries that drain to the Beaver Creek. Figure 4.2 illustrates the different drainage catchments located within the study area.

Stormwater within the study area is currently being managed by a combination of roadside ditches, natural drainage channels, and underground storm conveyance systems. These systems are shown in Figure 4.1. Additionally, there are a handful of existing detention ponds within the City's boundaries that service existing subdivisions and a privately owned detention pond located along the southeast side of South End Road and S Kelland Court.

Storm systems within the current City boundary generally consist of catch basins draining to underground conveyance systems. Pipe systems generally range in size from between 10 inches and 36 inches. Outside the City limits, stormwater is typically handled through roadside ditches with some areas draining to catch basins.

The City Engineering Division has indicated that they are currently working to create and adopt a new series of Low Impact Design Standards as part of a Stormwater and Grading Design Manual Update. Areas currently outside the City limits have the greatest potential to redevelop and implement new low impact design (LID) standards. Providing LID standards to new/redeveloped properties will limit the impact to existing aging storm systems and reduce the infrastructure required to services these areas.

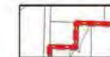
There are great opportunities to provide regional and sub-regional stormwater management areas. Considering and planning for storm on a catchment wide basis would help to reduce the number of small or privately owned and operated storm systems. With careful planning, regional stormwater management areas can be incorporated to drain treated stormwater into adjacent natural resource areas. The City of Oregon City currently utilizes one regional detention area in the South End Basin Master Plan, adopted June 1997. This regional detention basin is located south of Salmonberry Drive and southeast of Parrish Road extending outside of the study area. It may be possible to expand this facility in anticipation of additional development within the planning area.



SOUTH END CONCEPT PLAN

EXISTING STORMWATER INFRASTRUCTURE

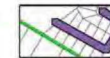
LEGEND



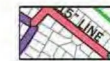
CONCEPT PLAN AREA



CITY LIMITS - OREGON CITY



EXISTING STORM LINES
12 INCH



EXISTING STORM LINES
15 INCH



EXISTING STORM LINE
18 INCH



EXISTING STORM LINES
24-36 INCH



ROADSIDE DITCHES

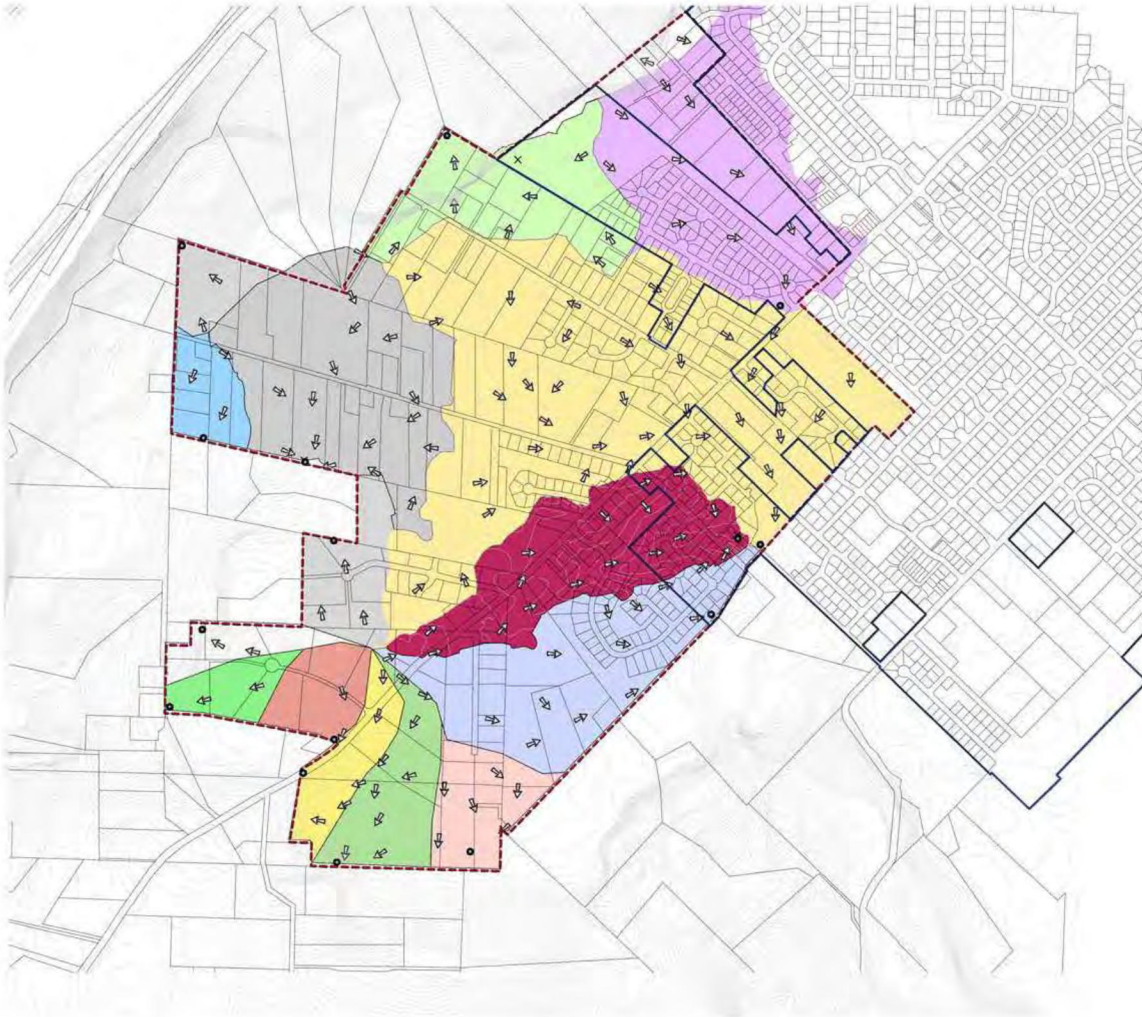


EXISTING STORMWATER
PONDS



0 200' 400' 600'
SCALE: 1" = 800' @ 11x17

OCTOBER 16, 2013



SOUTH END CONCEPT PLAN



STORMWATER CATCHMENT ANALYSIS PLAN

LEGEND



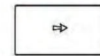
CONCEPT PLAN AREA



CITY LIMITS



STORMWATER CATCHMENTS



DIRECTIONAL ARROWS
(WATER FLOW)



0 200' 400' 1200'
SCALE: 1" = 400'

OCTOBER 16, 2013

Water

The Boynton pump station and reservoir provides water to residents within the planning area and areas adjacent, as described in the City of Oregon City Water Distribution System Master Plan, (January 2012). Water services within the planning area are served by both the City of Oregon City and Clackamas River Water (CRW). Transmission mains within South End Road are owned by the City of Oregon City and Clackamas River Water. There is a master service meter located just southwest of S. Impala Lane and South End Road intersection, which delineates the two service districts. This master meter delineates the mainline interconnect with the City of Oregon City and CRW. The City has a joint access agreement with CRW for special situations for areas outside of the City limits. Under this agreement, CRW can provide customer services directly from Oregon City pipelines that are upstream of their master meter. A majority of the study area is serviced by CRW under this agreement as these areas are intermixed with unincorporated and incorporated properties. Water services within the City boundary is provided by the City of Oregon City and pipe mainline sizes are between 4-inch to 12-inch. Areas outside of the City limits are serviced by Clackamas River Water District (CRW), as shown in Figure 4.3.



SOUTH END CONCEPT PLAN



EXISTING WATER INFRASTRUCTURE

LEGEND



CONCEPT PLAN AREA



CITY LIMITS



EXISTING WATER LINES



CLACKAMAS RIVER WATER SERVICE AREA BOUNDARY

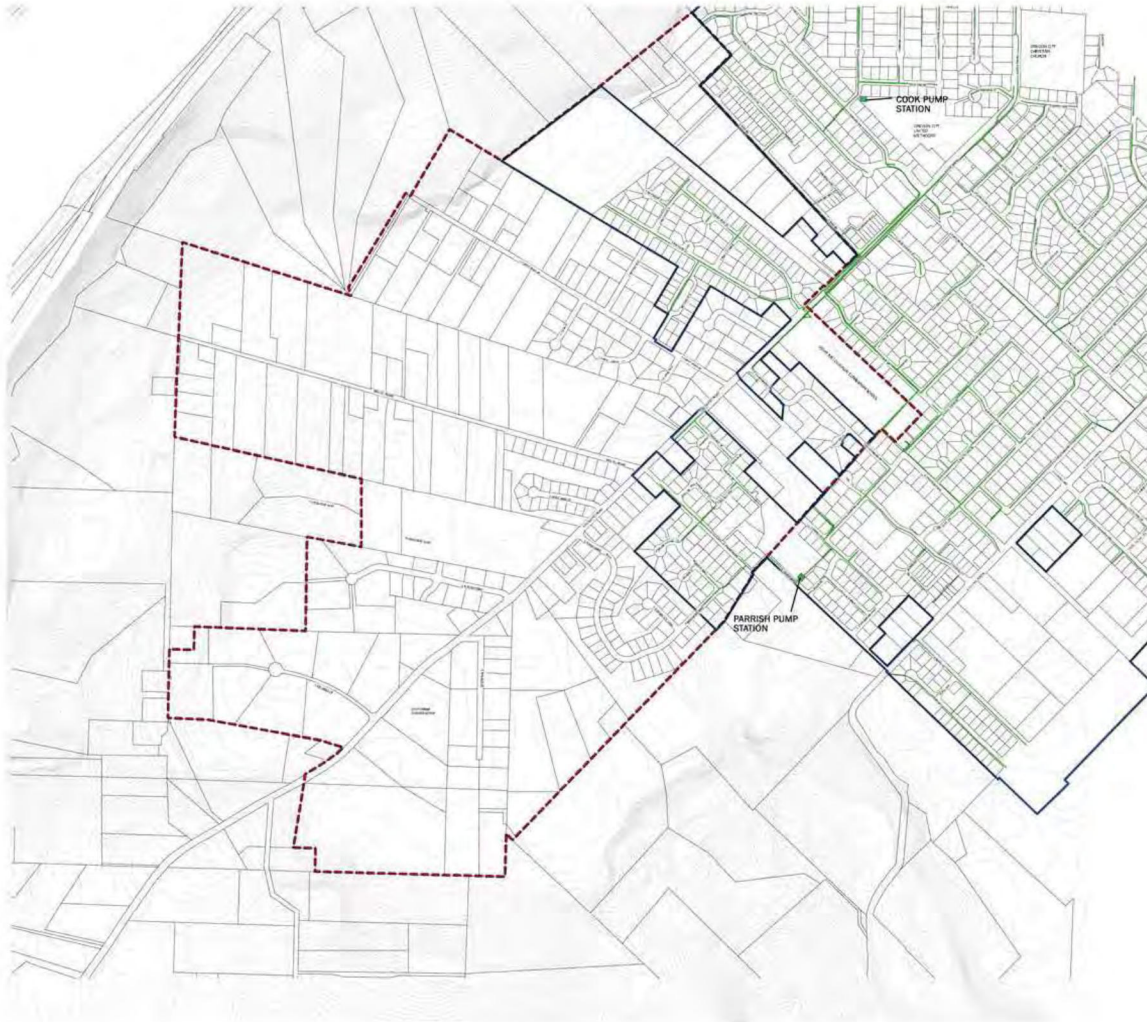


0 200' 400' 1200'
SCALE: 1" = 400'

OCTOBER 16, 2013

Sanitary Sewer

The only areas serviced by City wastewater collection are the lands located within the City limits in the Northeast and East sections of the planning area as shown in Figure 4.4. Areas within the City limits are serviced by gravity sewer mains ranging from 8-inch to 12-inch pipes. The planning area falls within the Parish Road, X1, E6, and E7 sub-drainage basins, and are a part of the South End Road drainage basin as shown in the City of Oregon City Sanitary Sewer Master Plan (December 2003). Areas within the Plan area that are inside City limits convey flows to the Parish Pump Station (11525 Parish Dr.). From there, sewage is conveyed through a 10-inch force main, to a manhole in front of Oregon City Church (1179 South End Road), which provides gravity flow eventually to the wastewater treatment plant. There are four existing houses, within City limits that are located at 11501, 11502, 11520, and 11521 Salmonberry Drive that are on private Septic Tank Effluent Pumping (STEP) systems. These STEP systems are maintained by the City of Oregon City, electricity is covered by the individual homeowner, and is pumped to the City sewer system within South End Road. The majority of the homes that are located within the planning area and outside city limits are currently on septic systems. The City Sanitary Sewer Master Plan indicates that the areas within the Plan boundary will drain to the South End Basin.



SOUTH END CONCEPT PLAN



EXISTING SANITARY SEWER INFRASTRUCTURE

LEGEND



CONCEPT PLAN AREA



CITY LIMITS



EXISTING SEWER LINES



EXISTING PUMP STATIONS



0 200' 400' 1200'
SCALE: 1" = 400'

OCTOBER 16, 2013

Energy

Power is currently provided within the study area by either above ground transmission lines or underground services. There is an above-ground transmission line that runs the length of South End Road. Most neighborhood streets that branch off of South End Road convey the electrical line underground. Two significant easements for overland transmission lines currently cross the planning area from east to west. The northern transmission corridor is managed by Portland General Electric. It is approximately 125 feet wide. The southern corridor is maintained by the Bonneville Power Administration. This transmission corridor appears to be 360 to 380 feet wide.

Natural Gas

Northwest Natural Gas (NW Natural) provides the natural gas services for the area. Existing gas lines are within the existing road network for the study area ranging in size from 1-inch to 4.5-inch mainlines. NW Natural can easily provide services, upgrades, and extensions as future development occurs.

Police Services

The South End Area is currently served by Clackamas County Sheriff's department, through their Enhanced Law Enforcement District. Various Jurisdictions (Molalla, Canby, etc.) travel through the project area with some frequency due to the Clackamas County facilities at Red Soil Campus (e.g. Jail, Courts, Juvenile Detention Center, Emergency Operations Center, and other public facilities. There is a higher general presence and visibility of law enforcement in this area due to this.

The City of Oregon City currently has no police stations within the planning area. The City Police Station is located at 320 Warner Milne Road, approximately 1.6-miles (2.0-miles by road) from the area. The police department services all of Oregon City from this office. In the future as individual properties annex into the City the police jurisdiction for the area will be transferred to the City's police department.

The City of Oregon City's police department is currently operating with a less than ideal budget. The department has typically requested that developers voluntarily contribute a per lot fee to the department upon application to the City for building permits. The department currently does not have plans for any new facilities within or adjacent to the planning area.

Fire and Emergency Services

The plan area is within Clackamas County Fire District #1 service area. Currently there are no fire stations within the area. The closest Fire Station (South End Station 17) that provides service to the study area is approximately 0.2 miles north of the study area at 19001 South End Road. Station 17 provides protection service for the South End area of Oregon City. The County's Fire district will continue to provide service to the area upon annexation of properties within the district to the City.

School Facilities

Oregon City School District provides education services for the planning area. The John McLoughlin Elementary is located within the planning area at 19230 S South End Road. The nearest middle and high schools are Gardiner Middle School, two miles away at 180

Ethel Street, and Oregon City High School, four miles away at 19761 Beaver Creek Road. The City also owns the King Elementary School located approximately two miles from the project site. The King Elementary School is currently leased to a charter school.

The District has indicated that sufficient capacity exists at the McLoughlin Elementary school to add many new students. If additional demand is anticipated, the King Elementary school may be re-opened by the District in order to provide capacity for potentially new 400 students. The district reviews the annual population forecasts and its Facilities Master Plan on an annual basis. If additional facilities are required, the School district may seek to adjust their master plans.

Chapter 5: Natural Resources

The following section summarizes the findings of the Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) Resource inventories. These findings are the result of research of historic aerial photographs, State of Oregon archives, and other available datasets.

Wetlands and Water Resources

Wetland and water resources were identified and located based on the Local Wetland Inventory for Oregon City (1999), National Wetland Inventory data (2012), USGS survey data (2012), aerial photography (2002), and available Metro datasets (2010). Two potentially jurisdictional wetlands and seven other waters of the State/United States comprising approximately 3.7 acres and 2.38 miles, respectively were identified within the Plan area.⁸

Both wetland areas are associated with channels and are comprised of mixed forest and emergent vegetation assemblages. Most of the wetland acreage is comprised of a somewhat linearly-shaped depression along a stream channel located in the northernmost portion of the study area. The other wetland area is east of the intersection of Forest Ridge Road and South End Road, near the confluence of two channels. Figure 5.1 is a map of streams and buffers. Buffers are calculated according to Oregon City stream buffer criteria per OCC 17.49.110. Field-level reconnaissance may reveal more complexity within the study area. A summary of wetlands and waters within the planning area is presented in Table 5.1. Figure 5.2 is a map of vegetation classifications and wetlands.

Table 5.1. Wetlands and Water Resources, South End, 2012

Resource Type	Classification	Acreage/Length
Wetland	<i>Palustrine emergent/forested</i>	3.7 acres
Stream/other waters	<i>Ephemeral/Seasonal</i>	2.38 miles

Source: Local Wetland Inventory, 9/1/1999; Water Resource Inventory, September 27, 2012.

⁸ Jurisdictional wetlands and waters are those that meet the definition of these features based on the 1987 Corps of Engineers Wetland Delineation Manual, and updates and supplements.

Vegetation and Wildlife Habitat

Existing wildlife habitat types are defined by basic vegetation assemblages that include forested areas, open grass/forb dominant space, and woody non-forested space. Habitat types present within the study area are summarized in Table 5.2.

Wildlife habitat areas are established via interpretation of vegetation coverage type using Metro's 2002 digital orthophotographs. Irregular shapes called “polygons” are digitized around forest, woody non-forest vegetation, grass/forb dominant open spaces, and developed gaps. For the South End project area, Forest landcover types are delineated. Woody non-forest vegetation and open space are delineated only within 300 feet of a mapped stream. As a result, open grassy areas and woody non-forested areas are likely underrepresented by the data.

Clackamas County Water Environment Services GIS mapping for Metro Title 13 areas indicates the presence of low, medium and high value Habitat Conservation Areas within the UGB area. These areas are generally associated with the presence of Title 3 riparian areas, water features and wetlands, and match the mapping done by Oregon City for the concept plan area.

It is anticipated that these areas would fall under the protection of the city's Natural Resources Overlay District upon annexation.

The upland areas outside of these low, medium and high value buffers are designated as “Allow”, meaning they are areas that are not regulated or protected by Title 13.

As stated earlier, field-level reconnaissance may reveal more complexity within the study area. Subsequently, prior to annexation of lands within the concept plan area, field level surveys may be required to verify the presence or absence of these resources in order to comply with statewide planning Goal 5.

Table 5.2. Terrestrial Wildlife Habitat Summary

Habitat Type	Acreage
Forested	102.5
Grass/Forb/Open Space Dominant	42.9
Woody Non-Forested	0

Source:



SOUTH END CONCEPT PLAN



Streams and Buffers

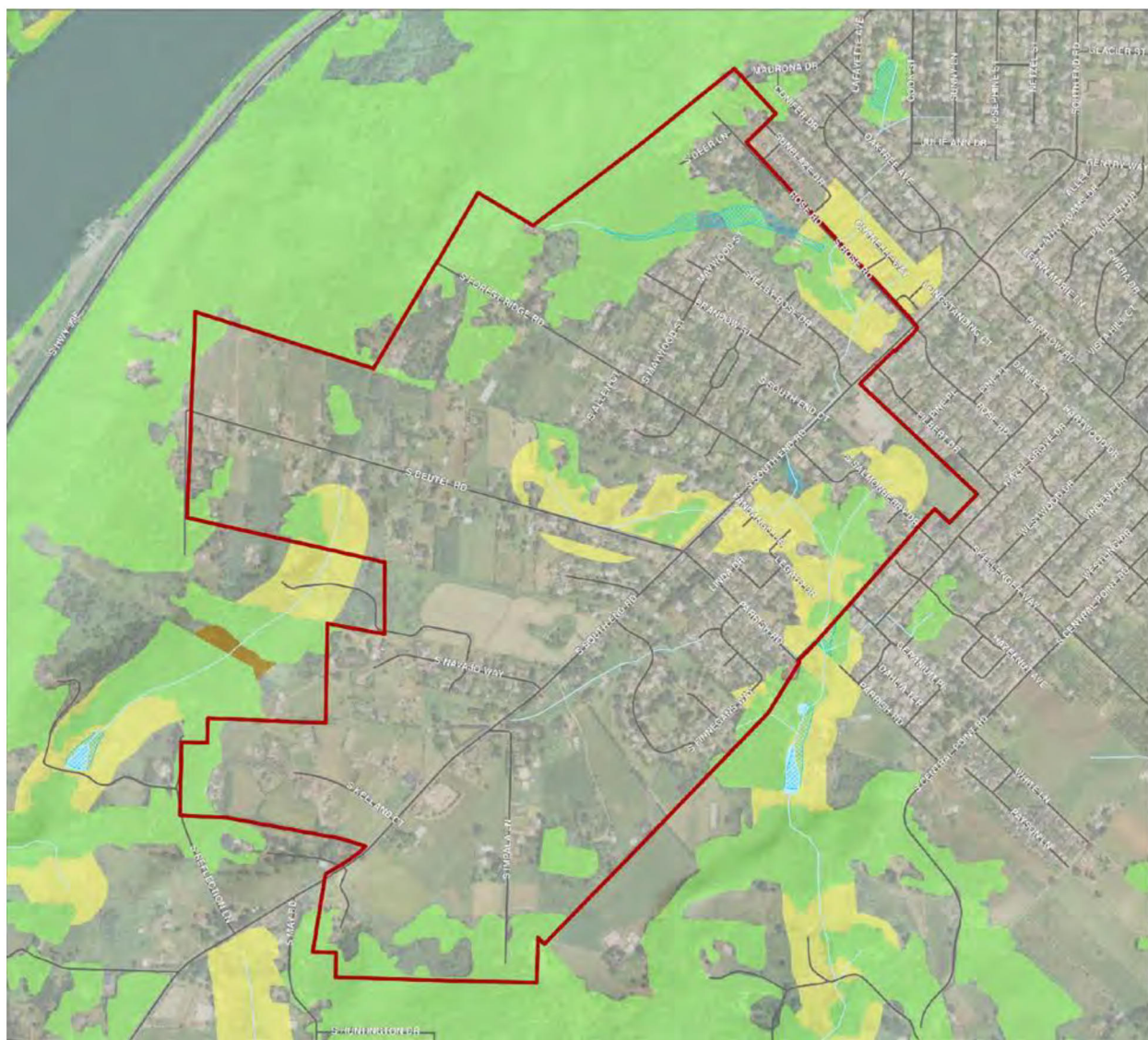
Legend

- Study Area
- Roadway
- Wetlands
- Stream
- Water Body
- 15 Ft. Stream Buffer
- 50 Ft. Stream Buffer
- Slopes Greater than 25%



OCTOBER 12, 2012

FIGURE 5.1



SOUTH END CONCEPT PLAN



Vegetation Classifications

Legend

- Study Area
- Roadway
- Wetlands
- Stream
- Water Body
- 2004 NIN Vegetation Study**
- Forest
- Grass or Open Field
- Woody or Shrub



OCTOBER 12, 2012

FIGURE 5.2

Federal Wild and Scenic Rivers

The National Wild and Scenic Rivers (WSR) list of designated river was reviewed. No federally-designated WSR occur within the existing study area (WSR 2012).

State Scenic Waterways

The Oregon Parks and Recreation Department (OPRD) map of designated Scenic Waterways was reviewed. No state-designated Scenic Waterways occur within the study area (OPRD 2012).

Groundwater Resources

No records for wells or groundwater aquifer sources were located using the Oregon Water Resources Department groundwater resources database query tool (OWRD 2012).

Approved Oregon Recreation Trails

The study area contains no Oregon Parks and Recreation Commission-designated Oregon Recreation Trails.

Natural Areas

Under Oregon Statewide Land Use Planning Goal 5, “natural areas” are defined as “... land and water that has substantially retained its natural character, which is an important habitat for plant, animal, or marine life. Such areas are not necessarily completely natural or undisturbed, but can be significant for the study of natural, historical, scientific, or paleontological features, or for the appreciation of natural features.” Natural areas may include passive and active parks.

Areas adjacent to the study area have the potential to meet one or more of these criteria occur along the western bluffs overlooking the Willamette River. The Willamette River is an American Heritage River and the Willamette River Water Trail is one of 14 nationally recognized water trails. These areas include potential for the appreciation of the Willamette River and adjacent landscape, among other potential attributes.

Wilderness Areas

The study area is located in an area of mixed residential and agricultural usage. There are no federally-designated wilderness areas within the study area.

Soils

Soils were identified and located based on the USDA Natural Resource conservation Service (NRCS) web soil survey. NRCS survey data identified 12 soils series within the study area. In general, soils in the project area are silt loam soils formed from mixed alluvium on hillslope terraces. One of the soils series, Delena silt loam, is considered hydric. Areas with mapped hydric soils may indicate the presence of wetlands; such soils may constrain infrastructure development, but may also provide opportunities for complex habitat development. Delena soils are mapped in the northern portion of, and comprise a small percentage of the total project area.

The NRCS database mapping also includes Cottrell, Jory, and Nekia silty clay loams, a Jory stony silt series, and steep, rocky outcrops. Figure 5.3 is a map of Concept Plan area soils and Table 5.3 includes a list of all soils in the project area.



SOUTH END CONCEPT PLAN



Soils

Legend

- Study Area
- Roadway
- Stream
- Water Body

NRCS Soils

- 8B Bornstedt silt loam, 0 to 8 % slopes
- 24B Cottrell silty clay loam, 2 to 8 % slopes
- 30C Delena silt loam, 3 to 12 % slopes
- 37D Helvetia silt loam, 15 to 30 % slopes
- 45B Jory silty clay loam, 2 to 8 % slopes
- 46B Jory stony silt loam, 3 to 8 % slopes
- 46C Jory stony silt loam, 8 to 15 % slopes
- 64B Nekia silty clay loam, 2 to 8 % slopes
- 64C Nekia silty clay loam, 8 to 15 % slopes
- 64D Nekia silty clay loam, 15 to 30 % slopes
- 78D Saum silt loam, 15 to 30 % slopes
- 92F Xerochrepts and Haploxerolls, very steep
- Hydric Soils



OCTOBER 12, 2012

FIGURE 5.3

Table 5.3. Soils Series

Aloha silt loam	Amity silt loam	Bornstedt silt loam
Cottrell silty clay loam	<i>Delena silt loam</i>	Hardscrabble silt loam
Jory stony silt	Helvetia silt loam	Jory silty clay loam
Saum silt loam	Nekia silty clay loam	Woodburn silt loam
Xerochrepts and Haploxerolls		

Italics indicate hydric soils

Source: NRCS Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/app/>

Mineral and Aggregate Resources

There are no known mineral or aggregate resources documented in the study area (DOGAMI 2012). There is record of a pumicite mine within two miles northeast of the study area. The Terrill mine is located in an exposed bed beneath the terrace upon which much of Oregon City is established. Fine pumicite powder and silica sands were extracted from the site for commercial use beginning in 1916. DOGAMI records appear to show the site as inactive since 1930.

Energy Sources

There are no known documented energy sources within the study area according to the Oregon Department of Energy. There are no facilities under review for site certification, certification amendment, or that hold site certification or site exemption for energy production (ODOE 2012).

Historic and Cultural Resources

There are several above ground historic resources around the study area. The State Historic Preservation Office (SHPO) Historic Sites Inventory lists a total of 2,980 historic sites for Oregon City and vicinity. There are three properties designated as being within the study area, one of which is on the National Register of Historic Places:

- The White-Kellogg House, 1900 S. Central Point Road, also known as the Four Elms and the Judge Samuel S. White House. The wood frame structure was built in 1849/1850 in the Classical Revival style, and was listed on the National Register in 1989. It is one of 25 homes shown on the historic sites inventory as listed on the National Register for Oregon City and vicinity.
- A house at 19142 Central Point Road. The house was built in 1900 and sided with horizontal boards. While considered eligible for the National Register, the structure is not so listed.
- The John H. and Margaretta Barck House, 18952 South End Road. The single family house was built in 1890 and has synthetic wood siding. It is not considered eligible for National Register listing.

Additionally, the historic sites database (www.oregon.gov/OPRD/hcd) shows 73 historic properties on roads highlighted within the project area map. They are:

- 14 properties on South Buetel Road,
- 2 on South Forest Ridge Road,
- 1 house at 1973 S. Parrish Road,
- 3 on South Rose Road, and

- 53 total on South End Road and S. South End Road (33 on South End Road; 20 on S. South End Road).

A review of General Land Office (GLO) maps showed several land claims within the study area. No donation land claims were noted on the 1852 GLO maps within Section 12, although a road to Oregon City is shown passing diagonally through the section from the southwest to the northeast passing through the southwest, northwest and northeast quarters of Section 12. It is possible that cultural material related to that road might be found during any subsequent survey or excavation in the area. Donation Land Claims within Section 12 first appear on the 1860 GLO map.

The 1860 map shows:

- Donation Land Claims within Section 12 registered to M.M. McCarver (445 acres shown as claim No. 41);
- Claim No. 42 (262.7 acres) registered to S.S. White;
- Claim No. 39 (435 acres) registered to Samuel D. Pomeroy;
- Claim No. 40 (416.73 acres) registered to Absalom F. Hedges, primarily to the north in Section 1, but touching on Section 12.

The GLO record also shows claims to the west registered to:

- Milton Brown (Claim No. 38);
- Claim No. 37 (633.43 acres) registered to Elizabeth Alprey

Overall, these are the closest Donation Land Claims to the study area; it is possible cultural materials related to them could be encountered during subsequent survey or excavation in the area.

Native American Resources/Tribal Interest

Oregon City Municipal Code requires notification of the following tribes during land use review of ground disturbing activities: Confederated Tribes of the Grand Ronde, Confederated Tribes of the Siletz, Confederated Tribes of the Umatilla, Confederated Tribes of the Warm Springs and Confederated Tribes of the Yakama Nation.

Threatened and endangered species

There are no federally or state listed rare, threatened, or endangered (RTE) species within the study area according to the Oregon Biodiversity Information Center. There are 20 occurrences of RTE species within a two-mile radius of the South End study area.

Aquatic species

There are no historic or current records of listed fish occurring in waterways in the study area (ORBIC 2012). No fish survey of waterways in the project area was located. According to an Oregon Department of Fish and Wildlife study on fish usage of Clackamas County Urban Streams, some urban area streams support a diverse assemblage of native fish species, including salmonids (ODFW 2003). The ODFW study did not include the South End project area.

Terrestrial Species

There are no known plant or animal species in the study area or its vicinity listed as rare, threatened or endangered by the Oregon Biodiversity Information Center (ORBIC 2012). Mature trees on the wooded bluff found on the western portion of the study area overlooking the Willamette River may provide opportunities for raptor roosting and nesting.

Chapter 6: Parks and Trails

This chapter describes the existing conditions of South End as it relates to parks, open space, natural areas and on-street and off-street pedestrian/bicycle trails. The South End concept study area possesses few designated open space areas and recreational facilities within it. However, this condition does not signify a lack of activity. Given the high availability of low speed and low traffic streets, many current residents use the roadway to serve a recreational function. These streets also provide a low-stress connection to destinations such as the Canemah Bluffs natural Area and the McLoughlin Elementary School recreational trail. As the process for developing a concept for South End evolves, it will be vital that steps be taken toward preserving the ability of residents to continue recreating and accessing low-stress walkways and trails right outside their front door. The following describes the existing conditions of South End as it relates to parks, open space, natural areas and on-street and off-street pedestrian/bicycle trails.

Related Planning Documents

This section summarizes existing planning efforts that are relevant to the South End Concept Plan.

Trails Master Plan (2004)

The Trails Master Plan (TMP) offers a long-term vision for trail network planning and development in Oregon City. The Plan also establishes goals for the Oregon City Trails network. Goal 1: Trail Development and Regional Connections is especially important to consider when planning in South End. This goal stipulates that “seamless connections to regionally significant trails with local trails to ensure that new development and subdivisions connect to the [trail] system.” Goal 7: Preservation, can also inform planning in South End. It states:

- Provide trail access to and preserve view corridors and viewsheds at vantage points.
- Preserve existing public rights-of-way and other easements for future trails and access-ways, particularly powerline and utility corridors.
- Preserve sensitive natural areas by designing and planning trails so that the natural area can be experienced without impacting or degrading the environment.
- The trails plan identifies several potential trail alignments that affect planning in the South End Concept Area, which are discussed in a later section. The Plan also establishes a trail hierarchy consisting of three trail types: regional trails, community trails and local trails.

Trails Master Plan Update (2012)

This update to the 2004 Trails Master Plan is being handled by the Oregon City Parks and Recreation Department and provides an up-to-date existing and proposed trail inventory,

analyzes priority gaps and clarifies trail types to more closely align with the 2012 Transportation System Plan (TSP). For example, the previous TMP made no distinction between off-street and on-street trails. The current TSP adopted a new 'Family-Friendly Route' designation for on-street pedestrian and bicycle connections, where traffic calming, pavement markings, and wayfinding can be used to enhance the active transportation user experience.

Park and Recreation Master Plan (1999)

The first iteration of the Park and Recreation Master Plan helped to establish the means to develop a stand-alone Parks Department that would oversee existing park maintenance and operations, as well as plan for new parks facilities. This Plan conducted a comprehensive inventory of existing park lands and recreational facilities and surveyed the community regarding their needs and desires.

Parks and Recreation Master Plan Update (2008)

This update to the 1999 Park and Recreation Master Plan helps clarify the short- and long-term goals of the Parks and Recreation Department. The plan summarizes the existing challenges faced by the department—lack of steady funding, inadequate staffing, and the high cost of on-going maintenance operations. The Parks and Recreation Department continues to pursue a dedicated funding source that will allow them to best meet the needs and desires of the community. A third piece of the Update was the administration of a community survey to better gauge resident's interests and needs. The following demonstrates the expressed community attitudes and desires that affect the South End Concept Plan process:

- Sixty-eight percent of respondents indicated that parks and recreation services were very, or somewhat, important.
- The majority of residents are willing to pay some kind of increased fee to directly fund parks and trails development and maintenance.
- The top three programs that are desired for the community (in order of preference) include: adult fitness and wellness programs, city-wide special events, and water fitness programs.
- The top three facilities that are desired in the community (in order of preference) include: walking and biking trails, new parks, open space and natural areas.

Parks and Open Spaces Near South End

City-Owned Locations

There are no public parks within the South End study area—existing open space is privately owned and maintained and signed as restricted access. One of the goals of the South End Concept Plan is to plan for the provision of parks and open space that provide opportunities for recreation and relaxation. Though no existing parks are available, residents living in South End can utilize some nearby City-owned parks and open spaces shown in Figure 6.1. These areas include:

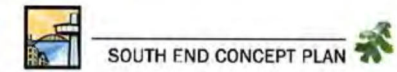
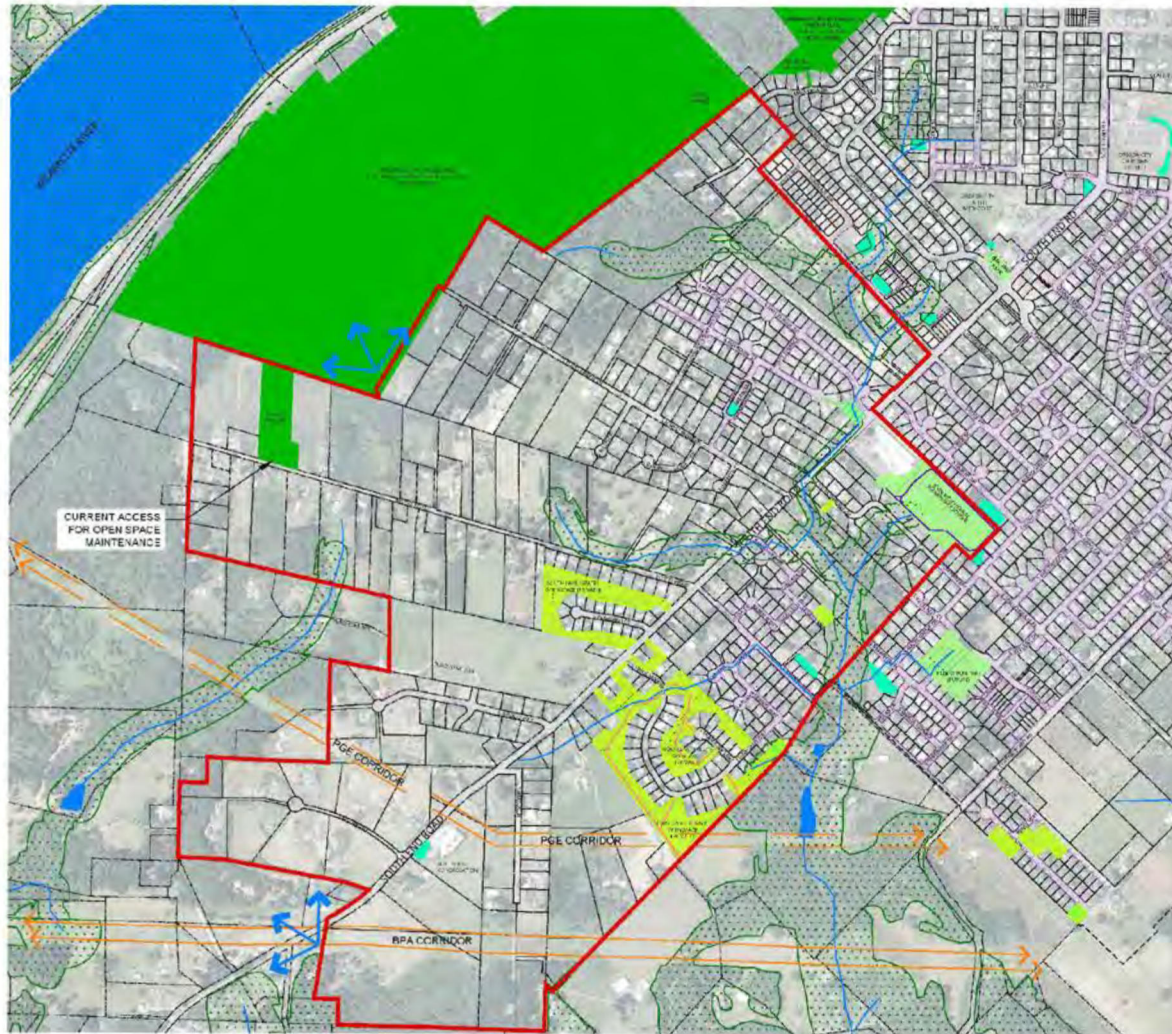


FIGURE 6.1: EXISTING TRAILS, PARKS AND OPEN SPACE

LEGEND

- SECP BOUNDARY
- TAX LOTS
- URBAN GROWTH BOUNDARY
- ▨ HABITAT CONSERVATION AREA
- CITY OWNED PARKS
- PRIVATE PARKS & OPEN SPACE
- METRO OWNED OPEN SPACE
- RIVERS, LAKES & STREAMS
- STORMWATER PONDS
- PUBLIC TRAILS
- SIDEWALKS
- PRIVATE TRAILS
- UTILITY CORRIDOR
- ↔ VIEWSHED



FEBRUARY 22, 2012

- **Madrona Open Space** is a small 1.2-acre open space area, just northwest of South End, which is owned by the City. Though an existing right-of-way could provide access to the open space, at this time no signs mark the entrance to the Madrona Open Space, and to the casual observer it would appear that access is provided via the adjacent property owner's side yard (see Figure 6.1). The Madrona Open Space area backs up to the Canemah Bluff Natural Area and could potentially serve as a gateway from the neighborhood.
- **McLoughlin Elementary School** has an existing field and recreation trail that is open to the public. There are two existing access-ways to the field from the surrounding neighborhood.

Private Locations

Privately maintained open spaces are a great way to disperse opportunities for leisure and recreation throughout the neighborhood. These smaller spaces act as de facto neighborhood "parks" and can augment the larger, publicly owned, parks network. Providing low-stress, pedestrian and bicycle friendly connections between existing neighborhood private spaces and public parks and natural areas is a priority for the South End Concept Plan. Moreover, new development can be encouraged to develop green open spaces within subdivisions.

Currently in South End, there is a precedent for this style of private open space development. South Park Estates and Finnegan's Terrace are both privately developed subdivisions that maintain open space areas. These locations offer amenities such as natural surface walking trails, sitting benches and recreational fields. However, these may be accessed by residents only. The Merchant Meadows subdivision also maintains a central open green space courtyard that the front of each home faces.

Though it is a future development site and is north of the study area boundary, The United Methodist Church maintains a large open space area that includes a soft-surface walking trail. This space is mainly used for Church-related activities, such as camps and potlucks, but it is also open to the public and serves as a popular neighborhood destination for people out for a stroll, or walking their dog.

Metro Owned Locations

The Metro owned and maintained Canemah Bluff Natural Area provides the greatest potential to provide residents of South End with opportunities for engaging in hiking, nature viewing, and other recreational activities. This 308-acre natural area is split into two distinct sections and serves as a significant wildlife habitat resource for the region. The northern section currently provides opportunities for recreation and nature viewing on designated trails and unimproved roadways. In September 2011, Metro published the Canemah Bluff Natural Area Natural Resource Area Conservation and Site Management Plan. This document offers recommendations for the improvement of some existing trails and the construction of others. Planned trails and roads in this area do not connect to the residential neighborhood on the eastern border of the Canemah Bluff Natural Area—an area identified as being sensitive wildlife habitat.

The southern section of Canemah Bluffs does not yet have a formal master planning document. Metro plans to thoroughly inventory and master plan this area in the next five to ten years.

This section of Canemah Bluffs is closest in proximity to the residents of South End and could potentially serve as an important resource for future residents. Currently, there are no existing access points into the natural area from South End and no designated trails for hiking and nature viewing.

Table 6.1. Summary of parks, recreation and open space areas near South End, 2012

Name	Type	Acres	Amenities/Services	Outside Study Area	Ownership
Filbert Run Park (Future)	Park	3.5	n/a	X	Oregon City
Oak Tree Park	Park	0.5	None	X	Oregon City
Madona Open Space	OpenSpace	1.2	None	X	Oregon City
Canemah Bluff Natural Area	Open Space	308	Nature Trails, Historic Pioneer Cemetery Access	X	Metro
McLoughlin Elementary School	Park	7.7	Recreational trail and ball fields		Oregon City School District
South Park Estates Open Space (Private)	Open Space	5.7	Soft-surface trails, ball fields		South Park Estates Homeowners
Finnegans Terrace Open Space (Private)	Open Space	13.3	Soft-surface trails, benches, ball field		Finnegans Terrace Homeowners
Wetland	Wetland	0.25	Informational Signage and Benches		Oregon City
Oregon City United Methodist Church (Private)	Future Development Site	7.6	None	X	United Methodist Church
Merchant Meadows Subdivision	Open Space	0.5	None		Merchant Meadows Subdivision

Source: Geographic Information System Data, City of Oregon and Portland Metro (Regional Land Inventory System)

Parks Planning in Oregon City

The Oregon City Parks and Recreation Department is charged with carrying out the planned parks improvements and capital projects that are described in the 2008 Parks Master Plan Update. The Parks and Recreation Department currently faces significant staffing and budget challenges. As such, the department is concerned with the potential burden of

developing additional park properties without a dedicated funding mechanism to support maintenance and parks operations. The goals for parks development in the South End Concept area should provide for community needs without imposing an unsustainable long-term maintenance burden on the Parks and Recreation Department. In addition, the South End Concept Plan should address:

- The need to ensure quality park access for pedestrians, bicyclists and individuals with disabilities. A complete ADA compliant pedestrian and bicycle network increases the distance the people are willing to travel to a park by active transportation modes.
- The need to develop creative funding strategies for long-term maintenance and operations of parks in South End.
- Creative ways to provide recreation opportunities in the public rights-of-way.

Planned Parks

Filbert Run Park is a planned 3.5 acre park site that will be located south of Hazelnut Avenue, just two blocks northeast of the South End study area. Park amenities have yet to be determined, but once complete, this park will provide a recreational opportunity for existing and future residents of South End.

Existing and Proposed Trails and On-Street Active Transportation Connections

Trail Network

Community surveys that were circulated during the planning process for the Parks and Recreation Master Plan Update indicate that the community has a strong preference for, and interest in increasing shared use trails in Oregon City. Currently, the South End study area does not have any publicly designated walking or biking trails.

Planned Trails

The Trails Master Plan (2004) identifies several trail projects that would improve active transportation access in South End. For example, the proposed Oregon City Loop Trail is identified as a potential regional trail that would serve both a recreation and transportation function. The proposed trail, which is located at the northern edge of the South End study area (the southern boundary of the UGB prior to expansion), would link the planned Filbert Run Park, McLoughlin Elementary School, and the southern and northern sections of the Canemah Bluffs Natural Area. This trail is identified as a high priority (Tier 1) project in the Trails Master Plan Update (2012) and is also included as a project in the City's recent TSP Update.

In addition to the Oregon City Loop Trail, several smaller community trails were proposed in the TMP. The project that is most salient to the needs of South End is the proposed Canemah Bluff Trail. This trail's alignment loops around the South End study on three sides and would provide a connection to the area's largest natural open space area. According to the Trails Master Plan, "this earthen trail would follow the contours on Canemah Bluff and travel around the southwestern point of the plateau. Two spur trails would connect to Beutel Rd. and Navajo Way."

Other proposed trails include the BPA Powerline trail, which follows the utility corridor right-of-way (ROW) from the Willamette River and links to Highway 213. Trails Master Plan states

that “the grades would be moderate to steep in some areas but would provide a pastoral natural experience for local walkers and horse riders.”

Lastly, the TMP identifies two local trails—the Finnegan’s Trail and Parkland Trail—to serve as inter-neighborhood connectors and to link to the larger trail network. Finnegan’s Trail would require negotiations with the Finnegans Terrace Homeowners Association. The Parkland Trail would connect a future development area at Navaho Way to the proposed Canemah Bluff Trail.

Table 6.2. Summary of trails near South End (by type, status, linear miles, and owner)

Name	Status	Length (miles)	Type	Ownership
McLoughlin Elementary School Trail	Existing	0.45	Hardscape recreational trail	Oregon City School District
Oregon City Loop Trail	Proposed	3.4	Regional Shared Use Path	Unknown
Canemah Bluff Trail	Proposed	3.5	Undetermined	Oregon City
Parkland Trail	Proposed	0.8	Undetermined	Oregon City
Finnegans Trail	Proposed	0.85	Undetermined	Oregon City
Beaver Ridge Trail	Proposed	6	Undetermined	Oregon City

Source: City of Oregon City Transportation System Portland Metro Regional Land Inventory System

On-Street Active Transportation Network

The existing on-street walking network is hindered by a general lack of sidewalks and large gaps in the sidewalk network where these facilities exist. The Transportation System Plan (TSP) Update 2012 identifies several sidewalk and two bike lane striping projects in the South End area, but these projects are mainly low priority projects, or pending future roadway development. Given the low speed and low traffic volume conditions of the local streets in the area, the existing roadways often serve an active transportation function—even without facilities to support walking and biking. Current residents are able to walk and bike comfortably on some of the existing streets now, but as the population increases with development, dedicated facilities will be preferred. With the exception of South End Road, most streets in the study area do not require separate on-street bicycle facilities. Instead, an emphasis should be placed on developing Family Friendly Routes that provide a low-stress, safe, and comfortable environment for pedestrians and bicyclists. Family Friendly Routes are a new addition in the Oregon City 2012 TSP Update and define this facility as:

“...an adaptation of shared roadways that modify existing low volume, low speed streets to prioritize the through movement of bicyclists and pedestrians while maintaining local access for automobiles. Family Friendly Routes typically include wayfinding signage and pavement markings (shared lane markings), as well as traffic calming features that reduce motor vehicle speeds and volumes. Where these facilities cross major roadways it is important to provide safe and comfortable pedestrian and bicycle crossings.”

Further enhancements may include “green street” features such as bio-swales and street trees, in addition to wider sidewalks and improved pedestrian amenities (e.g., benches and pedestrian-scale lighting). A network of Family Friendly Routes helps encourage active

transportation by providing comfortable, low-stress routes between neighborhoods and local parks, schools, and shopping areas.”

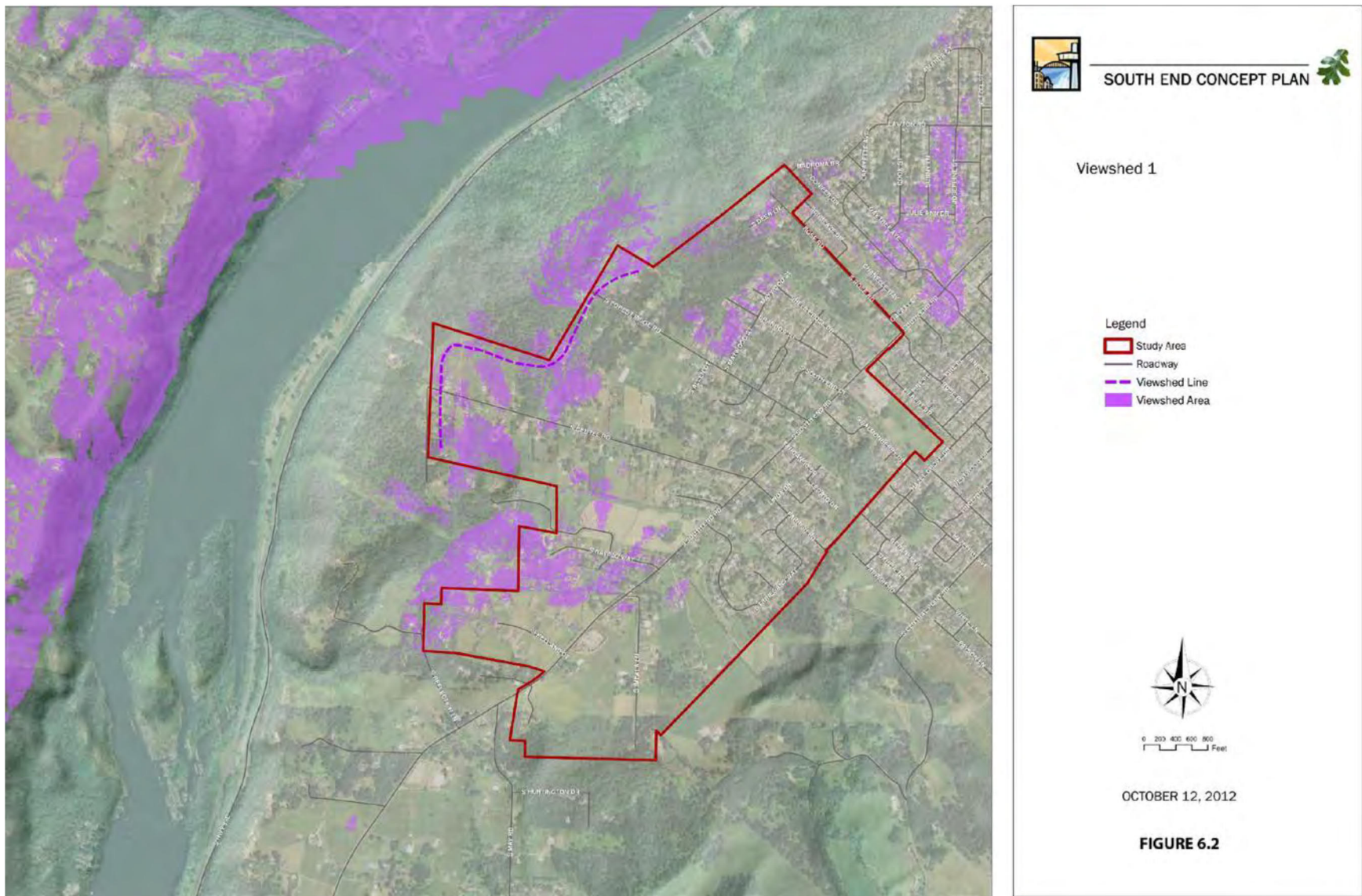
Utility Rights-of-Way, Wetlands, and Viewsheds

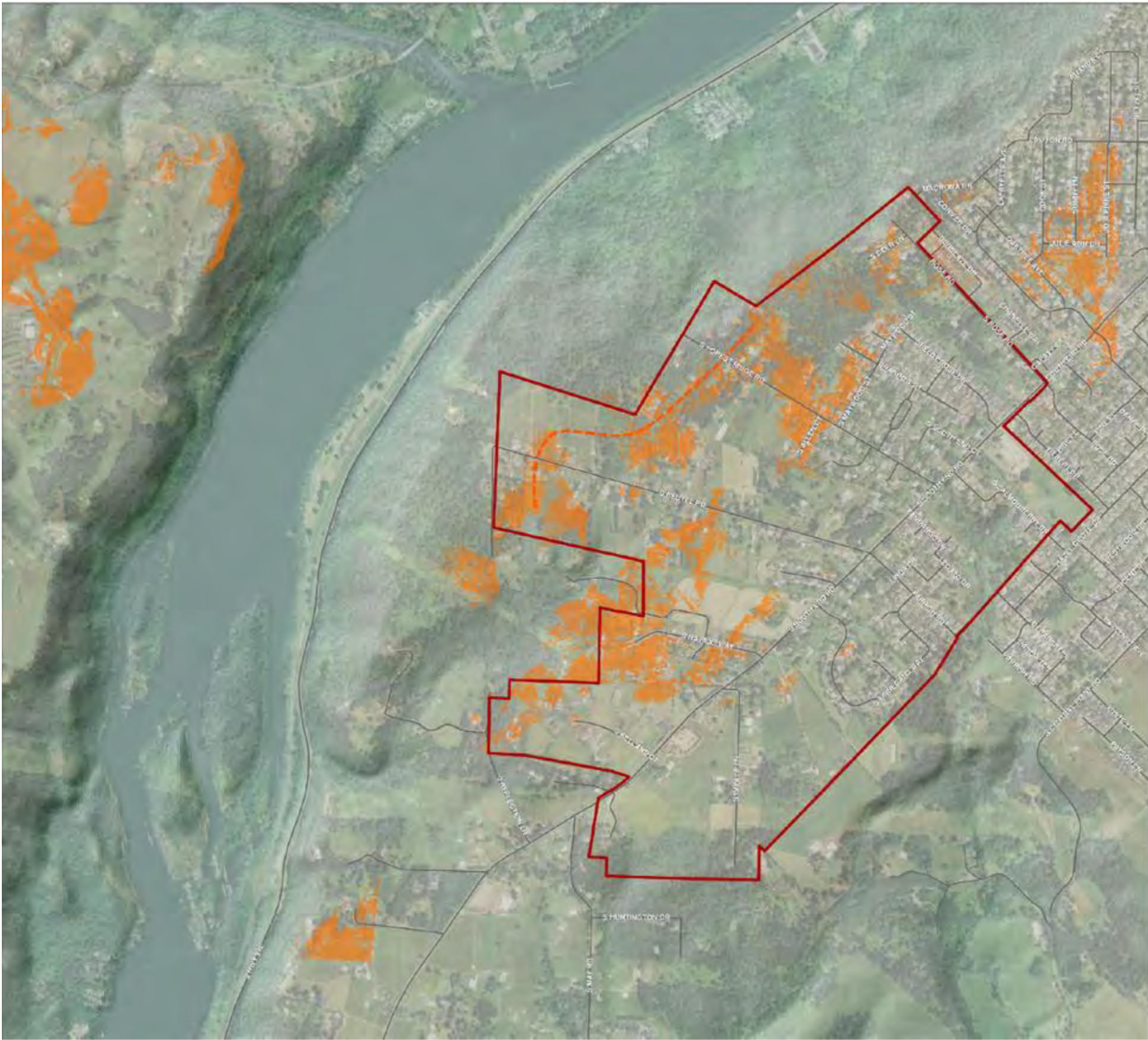
There are two existing utility ROWs in the project study area. One of these corridors—the BPA Powerline—is located toward the southern edge of South End and has already been identified as a potential trail connection in the Parks and Recreation Master Plan and the Trails Master Plan. A second corridor is located west of Navajo Way and, barring any significant topographical constraints, could serve as a potential connection from South End to the Willamette River. This utility easement is leased from the current private landowners and would require negotiating an additional trail ROW easement.

The proposed Oregon City Loop Trail plans to take advantage of the existing wildlife wetlands habitat area on the northern edge of the South End study boundary. The wetlands area south of Rose Rd and west of South End Rd is comprised of several large taxlots with limited development potential. With thoughtful and environmentally sensitive design, a shared use path in this area could take advantage of the naturally occurring wetlands to provide nature viewing opportunities and access to the Canemah Bluffs Natural Area. This trail would also serve a transportation function by providing residents with the ability to access the McLoughlin Elementary School.

South End has several excellent viewsheds within the UGB, offering panoramic views of the Willamette River and the Canemah Bluff Natural Area as shown in Figures 6.2 and 6.3⁹. One of these locations is the BPA powerline ROW just east of South End Rd on May Rd and a second is at the western terminus of Forest Ridge Rd. As mentioned in Chapter 5, the adjacent Canemah Bluff provides a scenic overlook of the Willamette River.

⁹ Viewscape maps were developed using digital elevation models. The data were used to identify and shade distant areas and landforms whose elevation would not be obscured or blocked by ‘foreground’ topographic features. The calculations were made from two vantage points, focusing the view towards the river and distant hills.





SOUTH END CONCEPT PLAN



Viewshed 2

Legend

- Study Area
- Roadway
- Viewshed Line
- Viewshed Area



OCTOBER 12, 2012

FIGURE 6.3

Chapter 7: Housing and Commercial Market

This chapter provides an overview of the real estate and demographic trends in Oregon City for the South End Concept Plan area. As part of this task, FCS GROUP (subconsultant) performed the following activities:

- Evaluated current real estate trends in retail and office lands within the Portland Metro area as well as the primary market area for the Oregon City South End.
- Evaluated state and regional data, which identifies projected growth patterns in population and employment in Oregon City and the South End area.
- Used Census and local market data to identify further demographic and socioeconomic trends that define the Oregon City South End.
- Formulated draft recommendations that help inform a market-supportable development program for housing, commercial, and office development in the South End over the long-term planning period.

A complete understanding of regional economic and demographic conditions and market trends is needed to inform decisions regarding land use development types that can be successfully developed over the next 20 years.

Economic Overview

This analysis includes an economic overview and real estate market analysis of commercial office, retail, and housing development potential in a defined Primary Market Area (PMA).

The PMA is considered to be the area that will provide the primary support/ demand for new development within the Oregon City South End area. The South End area may also derive market support from a much larger Secondary Market Area that extends well beyond the PMA to include the southeast portion of the greater Portland Region.

The Primary Market Area is defined as consisting of the Oregon City service boundary (area slightly greater than the current city limits) for housing; and the area within a 5-minute drive (20 minute walk) for retail/service/office uses.

In addition to evaluating current market conditions within the Oregon City and Southeast Market areas, the analysis includes retail inflow/outflow characteristics for the area within a 3, 5 and 15 minute drive of the South End area (see Appendix B).

National and Regional Overview

The current economic slowdown, which began in December, 2007 is now the longest on record since World War II. Consumers are still very cautious as unemployment and underemployment rates remain high. Over the past year, Oregon posted an overall job gain of 17,000 jobs between July 2011 and July 2012, as the state's unemployment rate fell to 8.7% (compared to a national rate of 8.3%).

The US and Oregon economies appear poised for a sluggish economic recovery according to many business economists. National economic growth (as measured by Gross Domestic

Product) is expected to increase by 1.9 to 2.4 percent in 2012, and by 2.2 to 2.8 percent in 2013, according to the Federal Reserve Bank.¹⁰ However, growth forecasts are now full of uncertainty in light of overseas fiscal problems in Europe, slower growth in China, and budget deficits within the U.S.

Like many regions across the U.S., the greater Portland Region experienced a decline in home values, stagnate income levels, high unemployment, and relatively high office and retail vacancies over the past few years. However, as population continues to increase within the greater Portland Region and new households are formed, there will be emerging development opportunities, especially once the current housing inventory is absorbed. Commercial development opportunities will likely follow, once firms begin to hire new workers, and household incomes begin to rise.

Natural population increases (births less deaths) combined with in-migration from other parts of the U.S. are expected to drive population and housing growth for the greater Portland Region that exceeds national averages. The population of the Portland-Beaverton-Vancouver Primary Metropolitan Statistical Area (PMSA) increased from 1.9 million in 2000 to nearly 2.2 million by 2010. According to Metro, the regional government, PMSA population is forecasted to increase over the foreseeable future. Metro expects the PMSA to add between 650,000 and 950,000 people over the next 20 to 30 years.¹¹

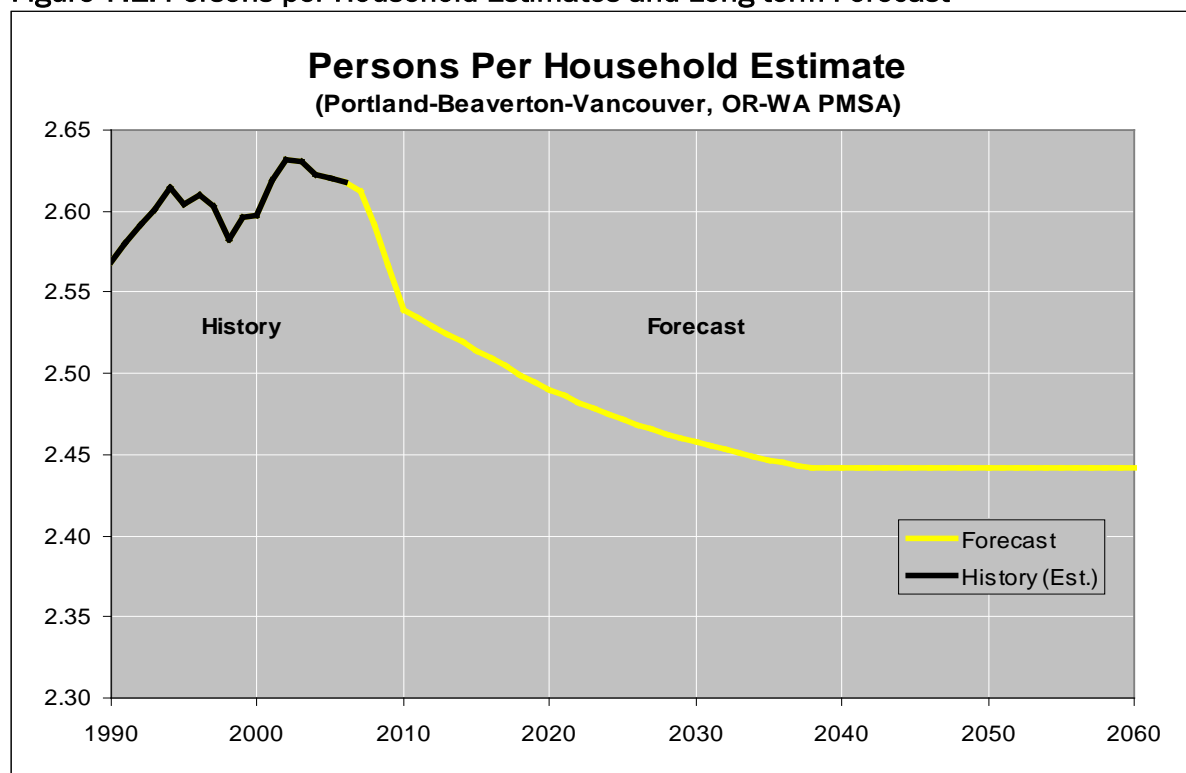
Within Clackamas County, the historic 2000 to 2010 population growth rate averaged 1.1 percent per year, as the County expanded in population from 340,000 to 376,000 people. Household size is a key driver in understanding housing demand. An aging baby boom population (U.S. citizens born between 1945 and 1964) combined with changes in socioeconomic patterns (such as single-parent households and fewer children per couple) are driving down the average household size. As indicated in Figure 7.1, the number of persons per household within the Portland Region was 2.62 in 2005 and is forecasted to decline to 2.49 by 2020.

As a result of declining household size, the rate of household formations is expected to exceed population growth over the next few decades. Also, smaller household sizes will lead to more demand for smaller home sizes, such as single family attached townhomes and apartments.

¹⁰ Reported at July 18, 2012 testimony to Committee on Financial Services, U.S. House of Representatives by Federal Reserve Chairman, Ben Bernanke.

¹¹The PMSA consists of Clackamas, Multnomah, Washington, Yamhill, Columbia counties in Oregon; and Clark and Skamania counties in Washington State.

Figure 7.1. Persons per Household Estimates and Long-term Forecast



Source: Metro

Increasing population within the greater Portland Region will also result in an expanding labor force, which should lead to more employment when businesses add jobs. Long-term job growth forecasts by Metro expect between 167,000 and 282,000 new jobs to be added to the PMSA between 2010 and 2020.

Oregon City Overview

According to the U.S. Census, Oregon City had a population of 25,754 in 2000 and 31,859 people in 2010. Between 2000 and 2010, Oregon City added 6,105 people and 2,502 households. U.S. Census data substantiates a relatively rapid increase in population for Oregon City over the past decade. As identified in Table 7.1, population growth in Oregon City far exceeded the county, regional, and state growth rates.

Table 7.1. Population Trends, 2000-2010

	2000	2010	Change	% Change
Oregon City	25,754	31,859	6,105	24%
Clackamas County	338,391	375,992	37,601	11%
Tri County Region*	1,444,219	1,641,036	196,817	14%
Oregon	3,421,399	3,831,047	409,648	12%

* Tri County Region includes Multnomah, Washington and Clackamas Counties.

Source: U.S. Census; Compiled by FCS GROUP.

The median age of Oregon City households went from 32.7 years in 2000 to 36.3 years in 2010, and average household size has fallen over the past, as shown in Table 7.2.

Table 7.2: Oregon City Demographic and Socio-economic Trends, 2000 - 2012

	2000	2010
Population	25,754	31,859
Group Quarters Population	903	650
Households	9,471	11,973
Family Households	6,669	8,206
Nonfamily Households	2,802	3,767
Population per Household	2.72	2.66
Average Household Size	2.62	2.61
Average Family Size	3.06	3.07
Median Age	32.7	36.3
Median Household Income	\$45,531	\$51,499
Median Family Income	\$51,597	\$62,237
Per Capita Income	\$19,870	\$24,322
Source: 2000 Incomes obtained from 2000 Census; Income levels for 2000 are reflected for year 1999.		
2010 incomes obtained from 2008 - 2010 American Community Survey.		
Population and Household statistics for 2000 and 2010 obtained from 2000 and 2010 Census.		

Table 7.3 shows that while median income levels have risen in Oregon City, they are still relatively low compared with the Clackamas County average median income level.

Table 7.3. Demographic and Socioeconomic Characteristics, 2010

	Oregon City	Clackamas County	Oregon
Average Household Size	2.61	2.7	2.5
Average Family Size	3.07	3.2	3.1
Median Age	36.3	39.4	37.7
Median Household Income	\$51,499	\$62,030	\$49,033
Median Family Income	\$62,237	\$74,700	\$60,025
Per Capita Income	\$24,322	\$32,681	\$25,893

Note: Income reported in 2009 dollars.

Source: U.S. Census

A positive trend in Oregon City has been the measurable increase in upper-income households. As indicated in Table 7.4, the number of households earning over \$75,000 per year increased by 1,982 households (71% of the change in households) between 2000 and 2007.

Table 7.4: Households by Income Level, Oregon City

Income Level	Census 2000		2008 - 2010 ACS		Change	
	Number	Dist. %	Number	Dist. %	Number	Percent
Less than \$10,000	728	7.70%	1,180	9.60%	452	62%
\$10,000 to \$14,999	395	4.20%	529	4.30%	134	34%
\$15,000 to \$24,999	1,028	10.80%	1,137	9.30%	109	11%
\$25,000 to \$34,999	1,322	13.90%	1,174	9.60%	(148)	-11%
\$35,000 to \$49,999	1,816	19.10%	1,879	15.30%	63	4%
\$50,000 to \$74,999	2,245	23.60%	2,446	19.90%	201	9%
\$75,000 to \$99,999	1,217	12.80%	1,731	14.10%	514	42%
\$100,000 to \$149,999	599	6.30%	1,843	15.00%	1,244	208%
\$150,000 to \$199,999	80	0.80%	241	2.00%	161	201%
\$200,000 or more	63	0.70%	126	1.00%	63	100%
Total	9,493	100%	12,286	100%	2,793	29.42%

Source: US Census

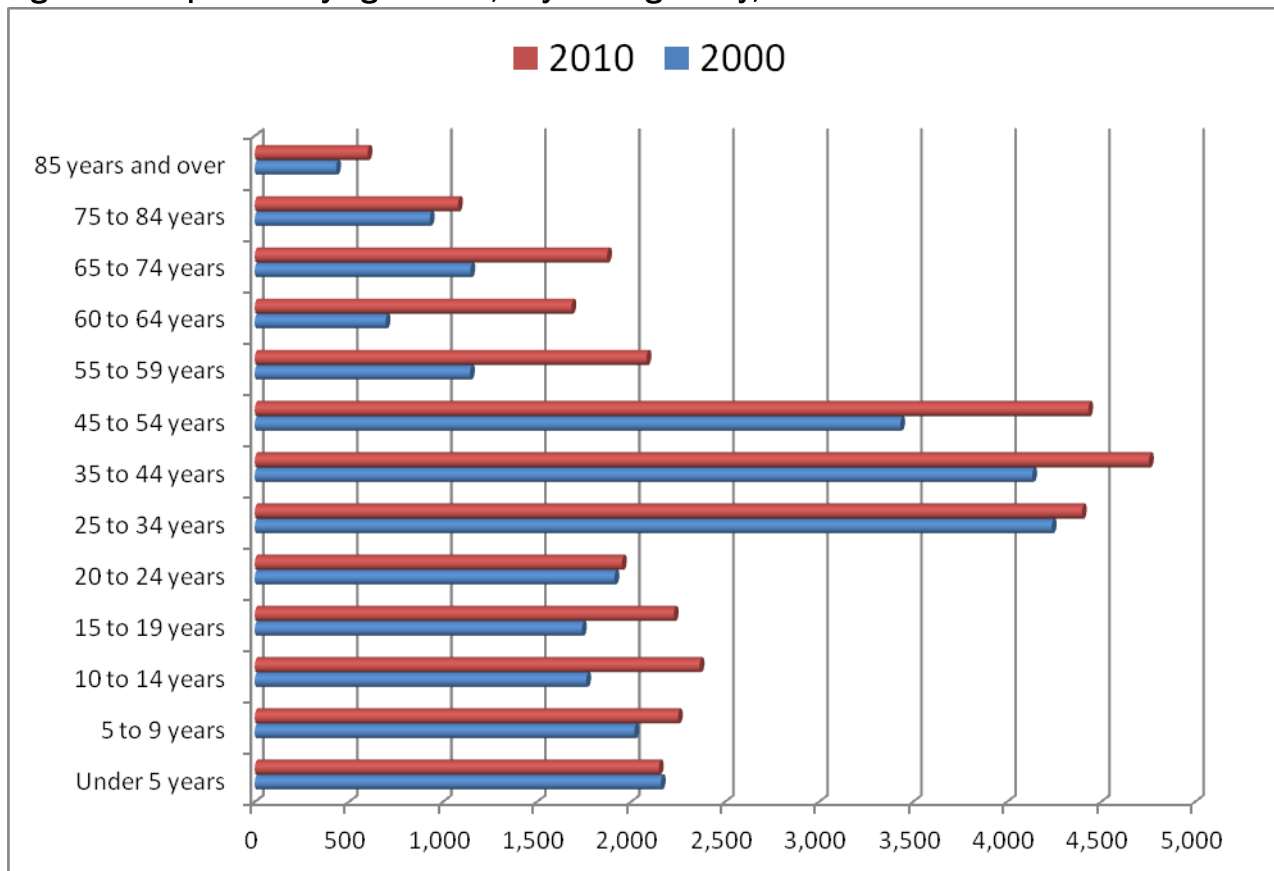
Oregon City has experienced an increase in population in all age cohorts, including young residents (ages 5 to 25), and middle-age residents (ages 25 to 54), and especially older residents (over the age of 64), as indicated in Figure 7.2.

This analysis includes ESRI's "Tapestry Segmentation" database for the South End area, which classifies households into 65 segments based on socio-economic and demographic data. The results indicated the existing households in and around the South End area generally fall into three Tapestry Segments, including:

- In Style (30% of households)
- Exurbanites (29% of households)
- Aspiring Young Families (8% of households)

These three household segments range in median age from 40 to 45 years (household head); include upper-middle income earners; employed in professional/management occupations; and most have some college/bachelor or graduate level education. While they generally prefer single family housing types, they may also consider a mix of small or large lot housing, apartments, townhomes and plexes (includes duplex, triplex, and quad-plex units).

Figure 7.2 Population by Age Cohort, City of Oregon City, 2000 and 2010

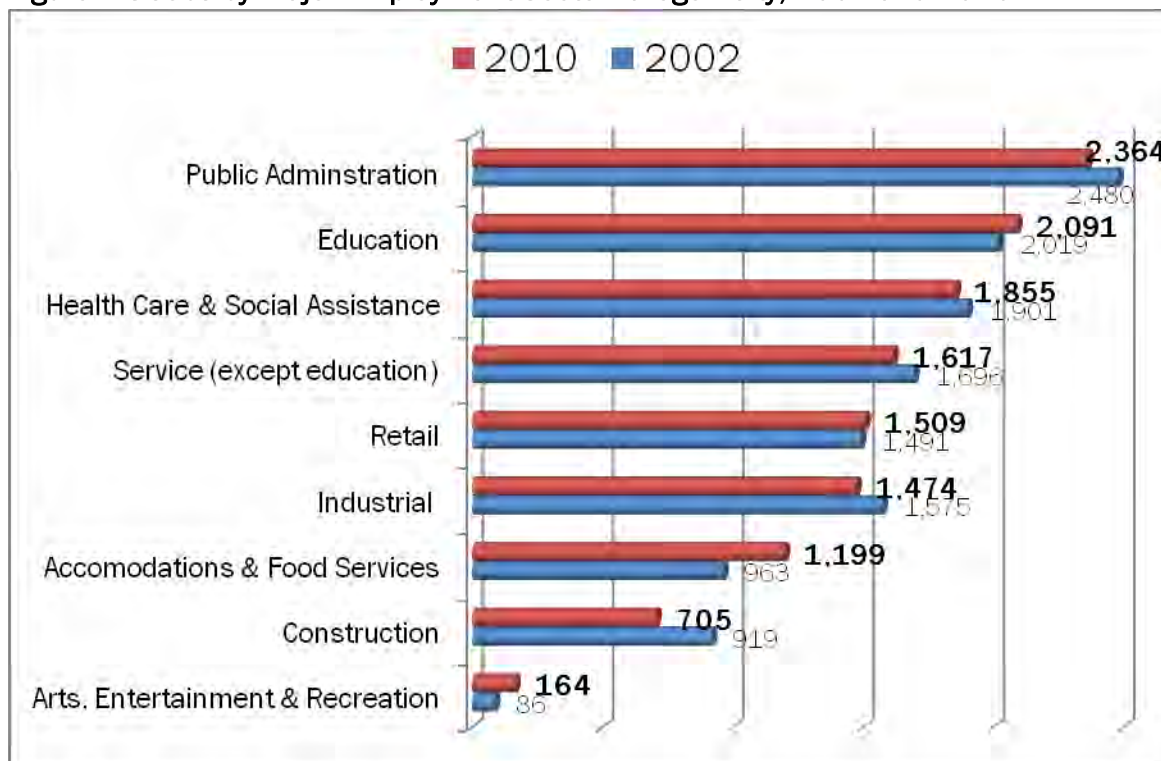


Source: US Census Bureau; Compiled by FCS GROUP.

Existing Employment

Oregon City had approximately 14,388 employees within the local service area in 2010, according to Metro. Figure 7.3 shows that the leading employment sectors (by number of employees) in Oregon City are public administration, education, health care and social assistance, services, retail and industrial job sectors.

Figure 7.3 Jobs by Major Employment Sector: Oregon City, 2002 and 2010

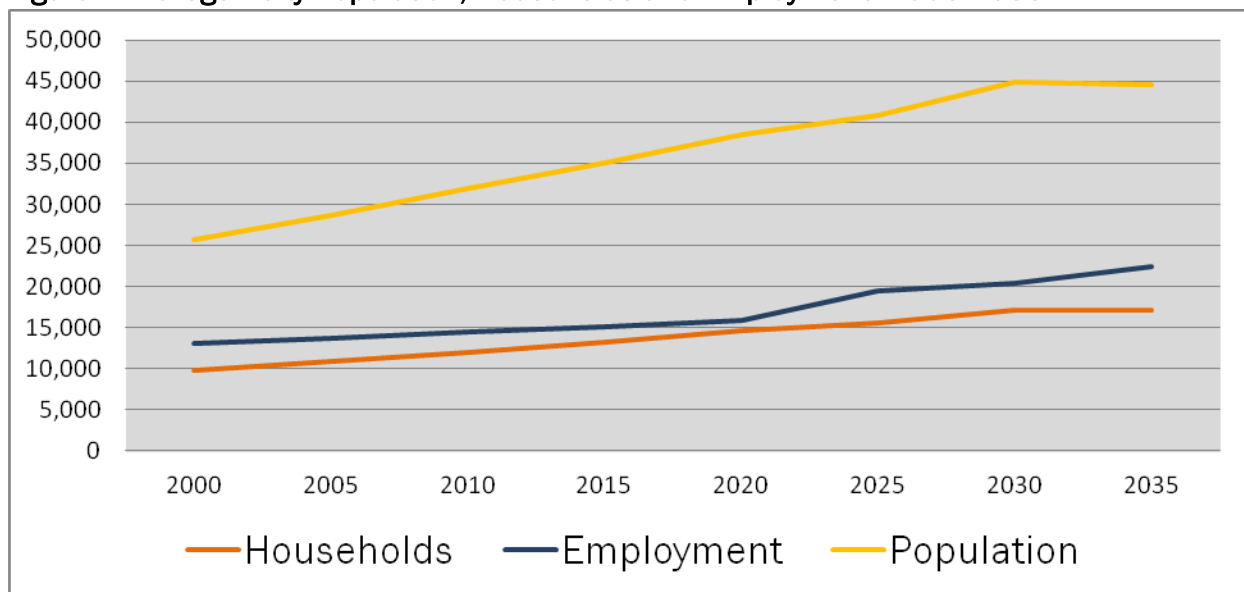


Source: US Census.

Long-term Growth Forecasts

The most current long-term growth forecast by Metro anticipates that Oregon City will add another 5,073 new households and 8,098 new jobs between 2010 and 2035, as shown in Figure 7.4.

Figure 7.4 Oregon City Population, Households and Employment: 2000-2035



Source: Trends by U.S. Census, and forecasts by Metro.

Over the 2010 to 2035 time period, Metro forecasts Oregon City will add 2,337 retail jobs, 3,263 service jobs and 2,498 other (industrial and government) jobs, as indicated in Table 7.5. Primary locations for new employment include downtown Oregon City as well as planned development areas such as Beaver Creek, and locations in and around the Clackamas Community College campus.

Table 7.5 Oregon City Growth Forecast: 2010 to 2035

	2010	Proj. 2025	Proj. 2035	Proj. Change: 2010 - 2025	Proj. Change: 2025 - 2035
Households	11,974	15,514	17,047	3,540	1,533
Employment (jobs)					
Retail	3,081	4,584	5,418	1,503	834
Service	3,727	5,657	6,990	1,930	1,333
Other	7,580	9,246	10,078	1,666	832
Total Employment	14,388	19,487	22,486	5,099	2,999

Source: Metro, gamma forecast, Aug. 2012.

The South End area (consisting of TAZ #740 and TAZ #754) is expected to add approximately 1,831 households and 13 jobs, according to prior Metro forecasts that were included in the Oregon City Transportation System Plan. More current preliminary Metro forecasts now expect 1,539 households and 76 jobs, based on the Metro gamma forecast released in August 2012.

Table 7.6. Forecasts for Households and Employment, 2005-2035

		2010	Proj. 2035	Proj. Change: 2010 - 2035	Proj. Avg. Annual Change: 2010- 2035
Households					
South End TAZs (per O.C. TSP)		742	2,573	1,831	73
South End TAZs (per Metro)		742	2,281	1,539	62
Oregon City		11,974	17,047	5,073	203
Clackamas County		140,469	198,459	57,990	2,320
Tri-County Metro Region		647,765	935,411	287,646	11,506
Employment (jobs)					
South End TAZs (per O.C. TSP)		150	163	13	1
South End TAZs (per Metro)		150	226	76	3
Oregon City		14,388	22,486	8,098	324
Clackamas County		127,386	194,920	67,534	2,701
Tri-County Metro Region		778,569	1,174,762	396,193	15,848
Source: Metro gamma forecast, Aug. 2012; and Oregon City TSP, draft 2012; South End Traffic Analysis Zones (TAZs) include #740 and #754.					

Market Analysis

Housing Market

Single-family detached housing units have traditionally dominated Oregon City's residential development patterns. Oregon City added 246 single-family dwellings between 2000 and 2009, according to the U.S. Census. Oregon City also added 12 single-family attached homes (townhomes or duplexes), six multifamily dwellings and 12 mobile homes during that time period (see Table 7.7). Median home values at the end of 2009 were approximately \$289,200 and median rent levels were \$907 per month, according to U.S. Census estimates.

Housing vacancy rates are beginning to stabilize in the greater Portland Metropolitan Region, as few new developments have occurred since the recent recession. Low vacancy rates are especially prevalent in multifamily developments. According to a study by NAI Norris, Beggs and Simpson, the multifamily vacancy rate in the Portland market area for the first quarter of 2011 was 2.7 percent, and the vacancy rate in the Clackamas sub-area (area includes Oregon City PMA) had a vacancy rate of only 3.24 percent.¹²

¹² NAI Norris, Beggs & Simpson Market Summaries First Quarter 2011 Portland Metro Area.

Table 7.7 Oregon City Housing Inventory: 2000 and circa 2009

	Census 2000	ACS Survey 2008 - 2010	Avg. Annual Absorption
<u>Dwelling Units</u>			
Owner Occupied	5,661	7,761	233
Renter Occupied	3,810	4,525	79
Vacant	639	354	(32)
Total	10,110	12,640	281
Owner Occupied %	60%	63%	
Renter Occupied %	40%	37%	
Total	100%	100%	
Vacant Dwellings %	6.3%	2.8%	
<u>Structure Type</u>			
Single-family Detached	6,320	8,534	246
Townhome/Plexes	1,506	1,610	12
Multifamily	1,991	2,042	6
Mobile Home	348	454	12
Total	10,165	12,640	275
Median Home Value	\$164,400	\$289,200	
Median Gross Rent	\$686	\$907	

Source: US Census; Compiled by FCS GROUP.

In comparison to other market areas, Oregon City home values are on the rise, with a 13.1% increase in median home sales prices over the past 12 months ending July 2012. As indicated in Table 7.8, median home sales prices in Oregon City increased to \$244,800 in July, according to Zillow.com, an online real estate database.

Table 7.8 Median Home Sales Price Trends in Selected Markets, 2011-2012

	July 2011	July 2012	Change %
Oregon City	\$216,500	\$244,800	13.1%
Lake Oswego	\$441,000	\$422,100	-4.3%
West Linn	\$369,500	\$339,300	-8.2%
Tualatin	\$342,300	\$268,600	-21.5%
Portland	\$263,200	\$270,700	2.8%
Wilsonville	\$285,800	\$295,600	3.4%
Canby	\$184,400	\$219,000	18.8%

Source: Zillow.com, Sept. 7, 2012.

A compilation of statistics for Oregon City, which reflects real estate sales over the past 24 months show that, as of September 7, 2012, there were 343 homes listed for sale in Oregon City, of which 45 percent were priced under \$250,000; 36 percent were priced between \$251,000 and \$450,000; and 19 percent were priced above \$451,000, as indicated in Table 7.9.

Over the past 24 months, there have been 1,285 recorded home sales in Oregon City, all of which were single family detached or attached homes. This pace of sales indicates that the current standing inventory of unsold homes in Oregon City now stands at fewer than 12 months, with the exception of homes prices above \$551,000.

Table 7.9 Oregon City Homes Sales Trends, 2010-2012

	Homes Sold	Homes Listed	Inventory
Less than \$150,000	240	50	5
\$151,000 to \$250,000	645	106	4
\$251,000 to \$350,000	281	87	7
\$351,000 to \$450,000	73	35	12
\$451,000 to \$550,000	17	8	11
\$551,000 or More	29	57	47
Total	1,285	343	6

Source: Zillow.com; reflects 24 month period from Sept. 2010 to Sept. 7, 2012; includes Oregon City and areas within approximately 1 mile of the city limits.

Oregon City has experienced a significant decrease in residential permits issued. New residential permitting activity in Clackamas County increased measurably in 2011 compared with the post recession years of 2008-2010. As shown in Table 7.10, the number of total privately-owned residential building permits increased to 1,172 in 2011, compared with 665 permits in 2010. The largest increase in permitting activity has been in the multifamily structure types.

Table 7.10. Privately-Owned Residential Building Permits Issued, Clackamas County: 2007-2011

Units in Structure			Recession			
	2006	2007	2008	2009	2010	2011
Single Family	2,212	1,942	865	580	625	800
2 Family	2	8	-	-	32	4
3-4 Family	4	-	-	7	3	-
5+ Family	564	100	-	128	5	368
Total	2,782	2,050	865	715	665	1,172

Source: US Census estimates for Clackamas County, compiled by FCS GROUP.

Oregon City has also seen an increase in residential building permit activity since 2010. Oregon City issued 223 total residential permits during the first eight months of 2012—an amount greater than the total permits issued during any of the four preceding years (2008-2011). As indicated in Table 7.11, during the November 2007 to August 2012 time frame, Oregon City issued 13 single family dwelling unit permits, and approximately five multifamily dwelling unit permits per month on average. Oregon City housing absorption over the past three years equated to an average of 156 single family and 60 multifamily dwellings per year, which is between 20-30 percent of the total Clackamas County residential permitting activity.

Table 7.11 Oregon City Residential Building Permits: November 2007 to August 2012

Multifamily Residential Units	
Additional square footage from MFR Dwellings ¹	303,703
Assumed Average size of MFR DU (sqft)	1,000
Number of MFR Dwelling Units	304
Average Absorption of New MFR DU per Month*	5
Single Family Residential Dwelling Units	
Number of added SFR Dwelling Units ²	743
Average Absorption of New SFR DUs per Month*	13
*Number of months over time period	
(Nov 2007 - Aug 2012)	58 months

The strength of local housing market demand is evidenced by several recent and ongoing housing subdivisions along South End Road. Recent housing developments include a mix of single-family detached homes (standard lot size), small lot detached homes, townhomes and duplexes. Home sales prices for new housing range from \$169,000 for a townhome to about \$350,000 for a single family detached home (see Figure 7.5).

Figure 7.5 Examples of Recent South End Housing Developments in Oregon City



Sequoia Landing along Glen Oak Road



Dawn Meadows along Rose Road/South End Road



Fandango Drive Subdivision

Retail Market

According to COSTAR, the Southeast market has remained a bit stronger for retail than for office demand. The overall average vacancy rate for retail space in the Southeast market was 4.2 percent for general retail and 8.4 percent for shopping centers at the end of the second quarter in 2012. However, Oregon City had relatively high vacancy rates for general

retail and has shown negative absorption levels for both general retail and shopping center space over the past 12 months, as shown in Table 7.12.

Table 7.12 Retail Market Statistics: 2nd Quarter 2012

General Retail Market Statistics								
Market	Existing Inventory		Vacancy		YTD Net Absorption	YTD Deliveries	Under Const SF	Quoted Rates
	# Buildings	Total RBA	Total SF	Vacant %				
Southeast	2,019	12,383,121	520,057	4.2%	49,752	61,713	4,125	\$13.10
Selected Subareas:								
Oregon City	148	768,094	68,771	9.0%	(3,795)	-	-	\$12.19
Clackamas/Milwaukie	789	5,482,887	251,012	4.6%	12,377	6,713	4,125	\$13.21
SE Close In	481	3,131,746	71,275	2.3%	56,570	55,000	-	\$16.41
West Linn/Hwy. 43	97	586,172	2,125	0.4%	5,539	-	-	\$21.64
Wilsonville	35	563,007	4,900	0.9%	1,100	-	-	\$22.50
Total in Region	7,348	56,677,037	2,054,392	3.6%	159,241	130,685	63,013	\$14.01

Shopping Center Market Statistics								
Market	Existing Inventory		Vacancy		YTD Net Absorption	YTD Deliveries	Under Const SF	Quoted Rates
	# Buildings	Total RBA	Total SF	Vacant %				
Southeast	143	6,328,834	528,953	8.4%	(19,873)	-	-	\$15.46
Selected Subareas:								
Oregon City	15	1,129,634	91,232	8.1%	(5,743)	-	-	\$19.78
Clackamas/Milwaukie	72	3,340,483	222,761	6.7%	4,868	-	-	\$15.23
SE Close In	14	289,247	17,145	5.9%	567	-	-	\$16.80
West Linn/Hwy. 43	32	1,313,947	80,149	6.1%	1,957	-	-	\$21.59
Wilsonville	11	862,152	46,019	5.3%	7,479	-	-	\$20.52
Total in Region	727	34,913,630	3,028,128	8.7%	(160,124)	-	6,000	\$16.42

Note: Southeast Market includes: Oregon City, Clackamas/Milwaukie, Mall 205, and SE Close-In areas.

Source: CoStar Office Report Mid-Year 2012; Cressa Partners.

Within the Primary Market Area for the South End area there is significant retail trade leakage, which occurs as households travel outside the area to make retail purchases. Table 7.13 reflects the retail sectors within the five minute drive (20 minute walk) which experienced a trade leakage during 2010. By adding a neighborhood or community shopping center, the South End could be positioned to intercept a portion of the retail trade leakage and benefit from long-term growth in household buying power that would occur as additional people move into Oregon City.

The findings of the retail inflow/outflow analysis indicate that the retail trade leakage from existing households within a five minute drive of the South End area could support 120,602 square feet square feet of commercial floor area (See Appendix B).

Over the long-term, as the South End area develops with additional households, the amount of retail purchase power is expected to increase and would “easily” support a new neighborhood shopping center or a community shopping center in the South End area.

Table 7.13 Retail Trade Leakage, South End Primary Market Area

Retail Inflow/Outflow Analysis

5-Minute Drive (20-minute walk) Area Analysis

Existing Conditions (2010):					
Population	6,895				
Households	2,494				
Median Income	\$51,283				
Per Capita Income	\$27,932				
	Demand	Supply	Retail Gap (Trade Leakage)	Support- able Floor Area (SF)	Support- able Acres
Retail	\$60,396,000	\$10,942,000	\$49,454,000	104,114	6.8
Food & Drink	\$10,278,000	\$2,446,000	\$7,832,000	16,488	1.1
Total	\$70,674,000	\$13,388,000	\$57,286,000	120,602	7.9
Source: ESRI "Retail Marketplace Profile report, 2010.					

Proj. Conditions (2035):					
New South End					
Households	1,685				
Households (5 Min. Drive)	4,179				
	Demand	Supply	Retail Gap (Trade Leakage)	Support- able Floor Area (SF)	Support- able Acres
Retail	\$101,200,836	\$10,942,000	\$90,258,836	190,019	12.5
Food & Drink	\$17,222,038	\$2,446,000	\$14,776,038	31,107	2.0
Total	\$118,422,873	\$13,388,000	\$105,034,873	221,126	14.5

Source: analysis by FCS GROUP; based on mid-point growth forecast for South End area per Oregon City TSP and Metro gamma forecast. Assumes current levels of retail spending and retail supply remain constant. Assumes average annual sales per square foot of \$475; and average building density level of 0.35 FAR (floor to area ratio).

Office Market

According to COSTAR, the Southeast area had a total Class A office inventory of nine buildings with 681,685 square feet of rentable building area, an 19.1 percent average vacancy rate, and average lease rates of \$22.66. The Southeast market area experienced a net increase in absorption during 2012 of 21,093 square feet. Oregon City did not account for any of the Class A office inventory as of 2nd Quarter 2012, as shown in Table 7.14.

Table 7.14 Office Characteristics, Southeast Market Area, Second Quarter 2012

Class A Market Statistics

Market	Existing Inventory		Vacancy		YTD Net Absorption	YTD Deliveries	Under Const SF	Quoted Rates
	# Buildings	Total RBA	Total SF	Vacant %				
Southeast	9	681,685	130,509	19.1%	21,093	-	-	\$22.66
Selected Subareas:								
Oregon City	-	-	-	-	-	-	-	-
Clackamas/ Milwaukie	9	681,685	130,509	19.1%	21,093	-	-	\$22.66
SE Close In	-	-	-	-	-	-	-	-
West Linn/Hwy. 43	1	65,000	21,617	33.3%	-	-	-	\$21.25
Wilsonville	4	325,501	39,409	12.1%	8,843	-	-	\$23.32
Total in Region	182	27,489,280	3,352,493	12.2%	(49,839)	135,000	-	\$23.26

Class B and C Market Statistics

Market	Existing Inventory		Vacancy		YTD Net Absorption	YTD Deliveries	Under Const SF	Quoted Rates
	# Buildings	Total RBA	Total SF	Vacant %				
Suburban Southeast	882	11,497,325	903,938	7.9%	(52,625)	-	2,000	\$17.72
Oregon City	121	954,631	83,210		(36,650)	-	-	\$15.73
Clackamas/ Milwaukie	347	2,503,598	153,830	6.1%	951	-	2,000	\$16.60
SE Close In	182	2,488,012	180,006	7.2%	(12,692)	-	-	\$15.23
West Linn/Hwy. 43	135	1,055,754	124,041	11.7%	(32,928)	-	-	\$19.33
Wilsonville	51	896,744	184,747	20.6%	13,110	-	45,880	\$16.26
Total in Region	4,825	65,702,198	6,666,784	10.1%	197,768	226,349	309,591	\$17.35

Note: Southeast Market includes: Oregon City, Clackamas/Milwaukie, Mall 205, and SE Close-In areas.

Source: CoStar Office Report Mid-Year 2012; Cressa Partners.

Chapter 8. Opportunities and Constraints

The following list of opportunities and constraints was developed based on comments received at the December 13 Community Open House. The opportunities and constraints diagram in Figure 8.1 synthesizes those comments and findings from this existing conditions report.

Opportunities

- Residents can connect to public sewers and discontinue use of septic systems.
- Large lot sizes within the planning area allow for large assemblages of property.
- New and existing properties can be consolidated into a regionally managed stormwater system to upgrade the aging system and address current drainage issues. Bringing the area up to new storm standards will help enhance and preserve existing natural resources and sensitive areas.

- A network of street lights within the plan area can help address community concerns.
- Roadways, paths and trails can better link homes with local and regional amenities.
- New development can launch a process through which power lines and utility services are placed underground.
- Future water services in the area can be provided by the City of Oregon City rather than under the joint usage agreement with Clackamas River Water.
- The lack of services and retail uses present an opportunity for centralized planning.
- Tremendous views of surrounding property may provide lasting amenities for future residents.
- Future residential development potential within the study area looks favorable in light of the well-defined market demand segments which prefer suburban neighborhoods, increasing householder income levels, and proximity to local schools and parks.
- Low single family and multifamily vacancy in Oregon City indicate favorable near- and long-term development potential for virtually all types of single family and multifamily apartments, and townhomes. Aging Oregon City households, who prefer to remain close to home, may also create a market for assisted living or senior housing developments.
- Future development potential within South End is likely to consist of a mix of single-family (standard and small lot “cottage” units), townhomes, plexes and multifamily (apartments) development types.
- The overall development forecast for South End assumes a relatively modest overall capture rate of the Portland Metropolitan Area that ranges from 26 to 34 percent of total housing development within Oregon City over a 2010-2035 timeframe. The preliminary market forecast for housing within the South End area is provided in Table 8.1. The analysis assumes that the adequate infrastructure conditions to serve new growth and improved market conditions.

Table 8.1 Preliminary Residential Development Program, 2011 to 2035

	2010 - 2014	2015 - 2020	2020 - 2025	2025 - 2030	2030- 2035	Total
Single family (dwellings)	*	175 - 224	175 - 224	175 - 224	175 - 224	698 - 898
Townhomes (dwellings)	*	70 - 90	70 - 90	70 - 90	70 - 90	279 - 359
Multifamily (dwellings)	*	-	-	168 - 215	168 - 215	335 - 431
Assisted Living (units)	*	-	-	-	84 - 108	84 - 108
Total New Dwellings	*	244 - 314	244 - 314	412 - 530	496 - 637	1,397 - 1,796

* Nominal levels of development are expected over next few years, as Public Facility Plans, funding strategies and zoning gets solidified.

See Appendix D for the analysis of residential development market capture rate assumptions.

- The preliminary commercial development program for South End is summarized in Table 8.2.¹³ The potential retail/commercial development assumes a 25 percent trade leakage capture rate, and is somewhat consistent with the most recent Metro gamma forecast for job growth in the South End area. This analysis assumes that South End could potentially be positioned to develop a small neighborhood

¹³ Derived from the retail trade inflow/outflow analysis contained in Appendix B.

commercial center (55,000 sf on about 4-5 acres of land), or a slightly larger community center anchored by a medium size grocery store (110,000 sf on 7-9 acres). The center could be developed with a mix of 1-2 level buildings with office above retail space. Demand would likely not occur until the housing elements of the South End area were developed (about year 2025 to 2035). Potential tenants could include:

- convenience store or a grocery store (community center scenario only)
- specialty food store
- full-service restaurant
- bakery/deli
- coffee shop
- day care center
- upper-level office/services

The actual amount of development will vary from year to year, and will depend upon related strength in employment growth (business investment) and household growth and buying power in the area. However, these long-range forecasts are generally in line with the Oregon City TSP and Metro growth forecasts for the area.

Table 8.2 Preliminary Retail/Commercial Services Development Program, Oregon City South End, 2010 to 2035 (gross floor area in square feet)

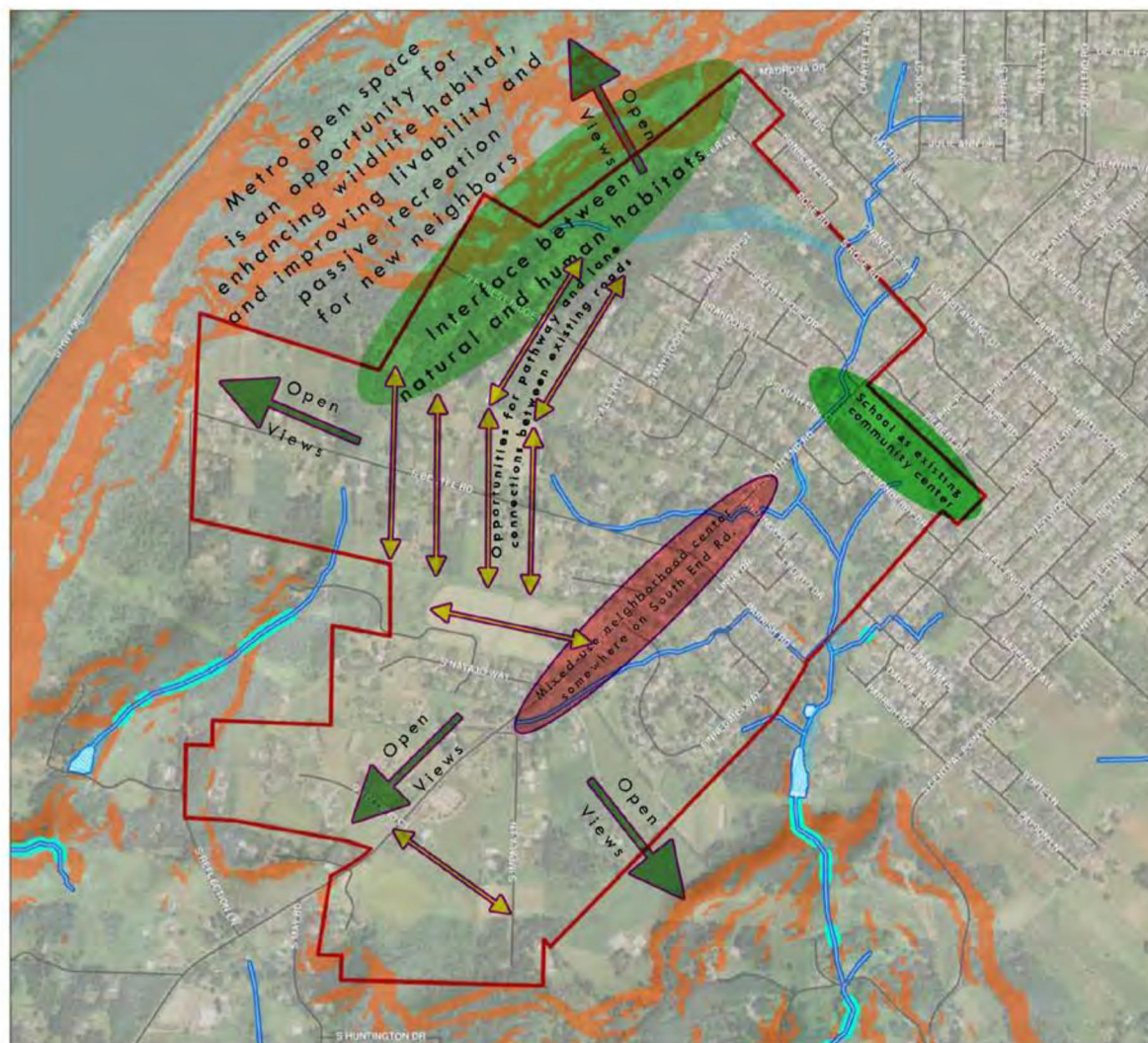
Neighborhood Shopping Center Scenario					
	Proj. 2035 Retail Need/Gap (annual sales)	Proj. South End Capture (@25% of Need/Gap) (annual sales)	Potential Supportable Floor Area (SF)	Supportable Net Land Need (acres)	Estimated Permanent Jobs (on site)
Retail/Commercial	\$90,258,836	\$22,564,709	47,505	3.1	95
Eating & Drinking	\$14,776,038	\$3,694,009	7,777	0.5	16
Total	\$105,034,874	\$26,258,718	55,282	3.6	111

Community Shopping Center Scenario					
	Proj. 2035 Retail Need/Gap (annual sales)	Proj. South End Capture (@50% of Need/Gap) (annual sales)	Potential Supportable Floor Area (SF)	Supportable Net Land Need (acres)	Estimated Permanent Jobs (on site)
Retail/Commercial	\$90,258,836	\$45,129,418	95,009	6.2	190
Eating & Drinking	\$14,776,038	\$7,388,019	15,554	1.0	31
Total	\$105,034,874	\$52,517,437	110,563	7.2	221

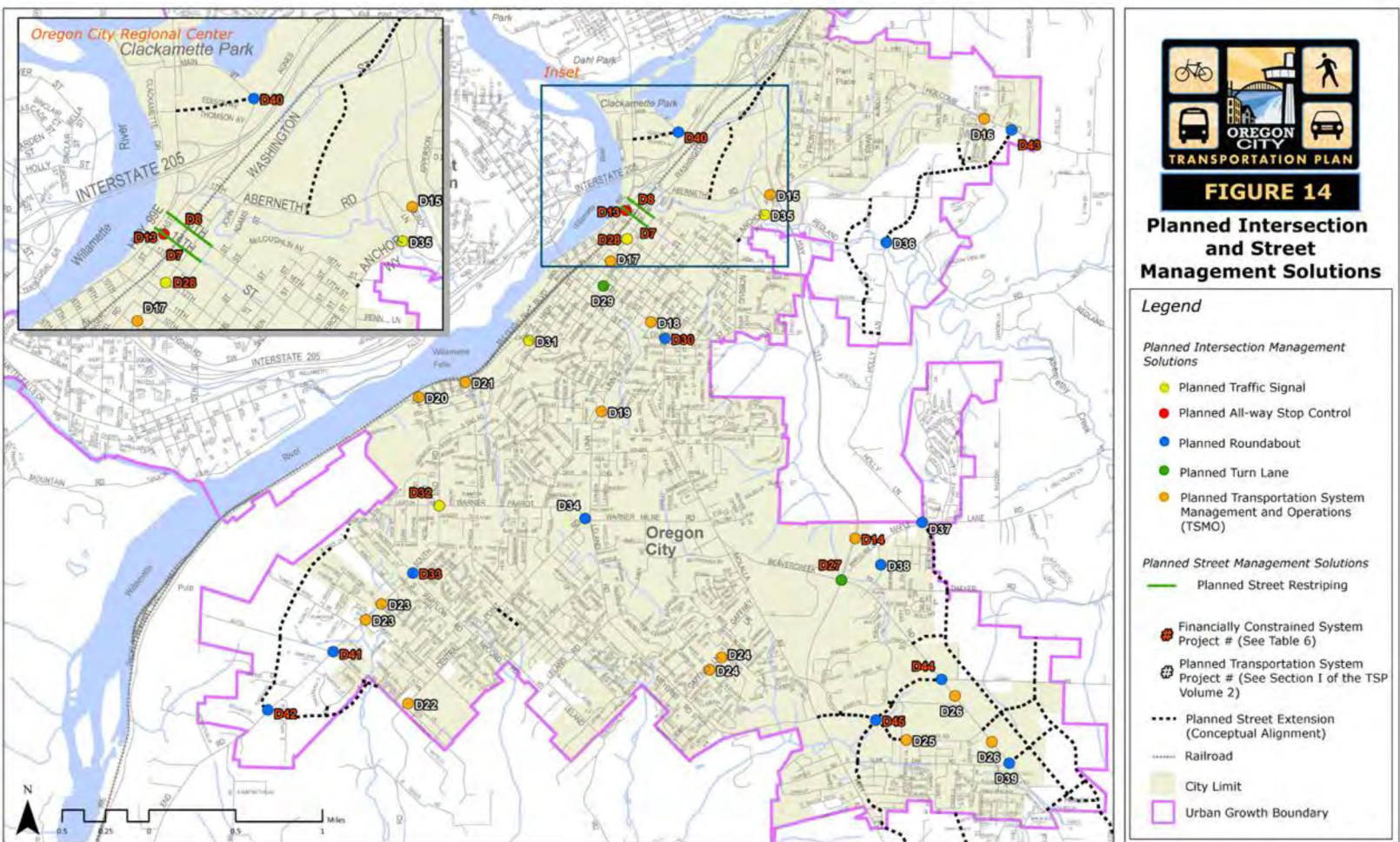
Source: derived from analysis by FCS GROUP, based on mid-point of housing growth forecast for South End area per the Oregon City TSP and Metro gamma forecasts. Assumes current level of retail spending patterns with average annual required sales per square foot of \$475; and an average building density of 0.35 floor area ratio (FAR); and 500 FAR SF per job.

Constraints

- The existing development pattern and ownership fragmentation may make assembly of properties difficult.
- The established linear road network may make it difficult to provide new connections between existing roads.
- Large existing developments may reduce the ability to link roads and trails.
- Somewhat fragmented development along main roadways may have low redevelopment potential.
- The lack of neighborhood amenities, such as pedestrian/bicycle trails, shopping and restaurants may be a drawl back that could be addressed with adequate site planning.



Appendix A. Planned Transportation Improvements



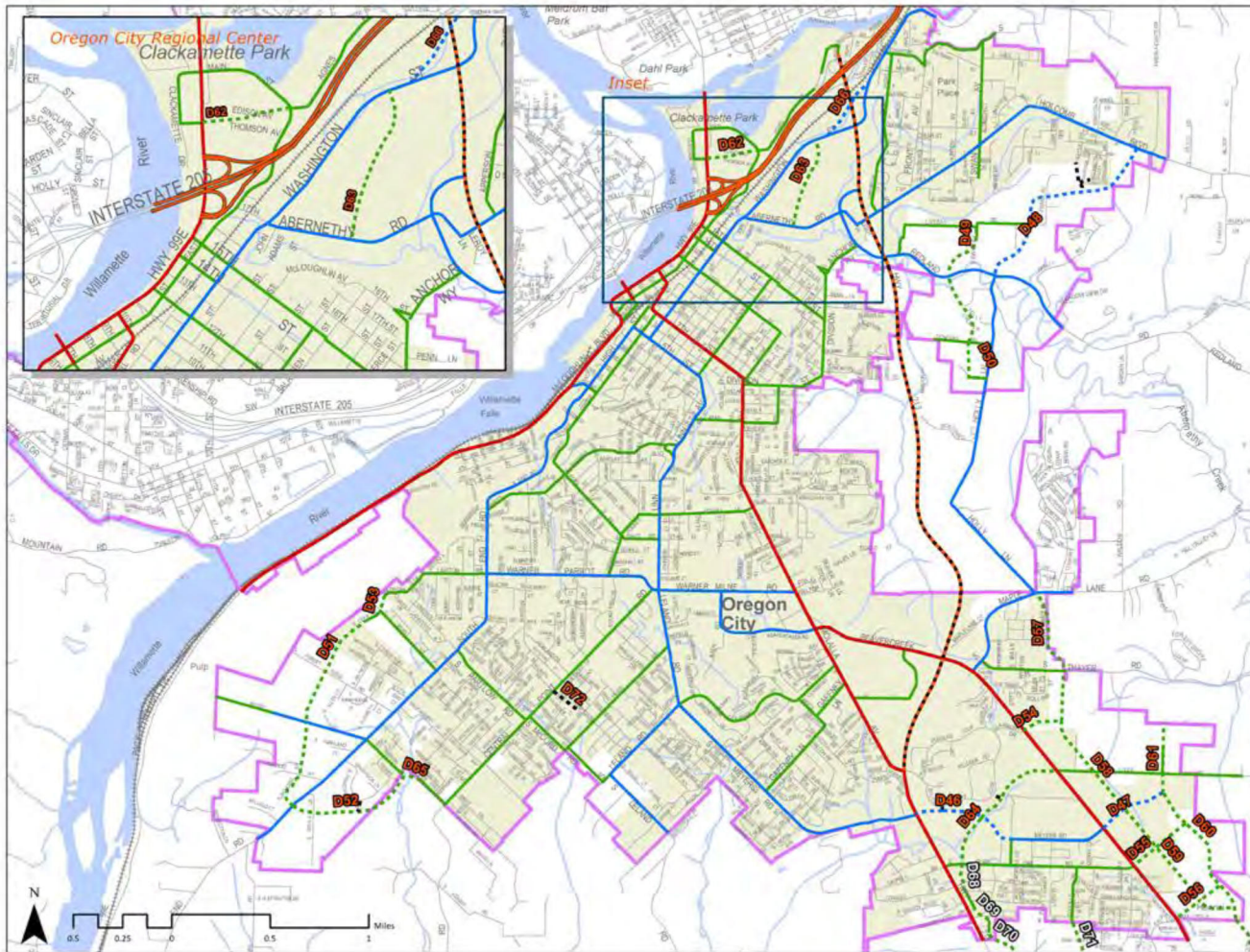


FIGURE 15

Planned Street Extensions

Legend

Existing Functional Classification

- Freeway
- Expressway
- Major Arterial
- Minor Arterial
- Collector
- Local Roadway

Planned Street Extensions (Conceptual Alignment)

- Planned Minor Arterial
- Planned Collector
- Planned Local Street

Financially Constrained System Project # (See Table 6)

Planned Transportation System Project # (See Section I of the TSP Volume 2)

Railroad

City Limit

Urban Growth Boundary

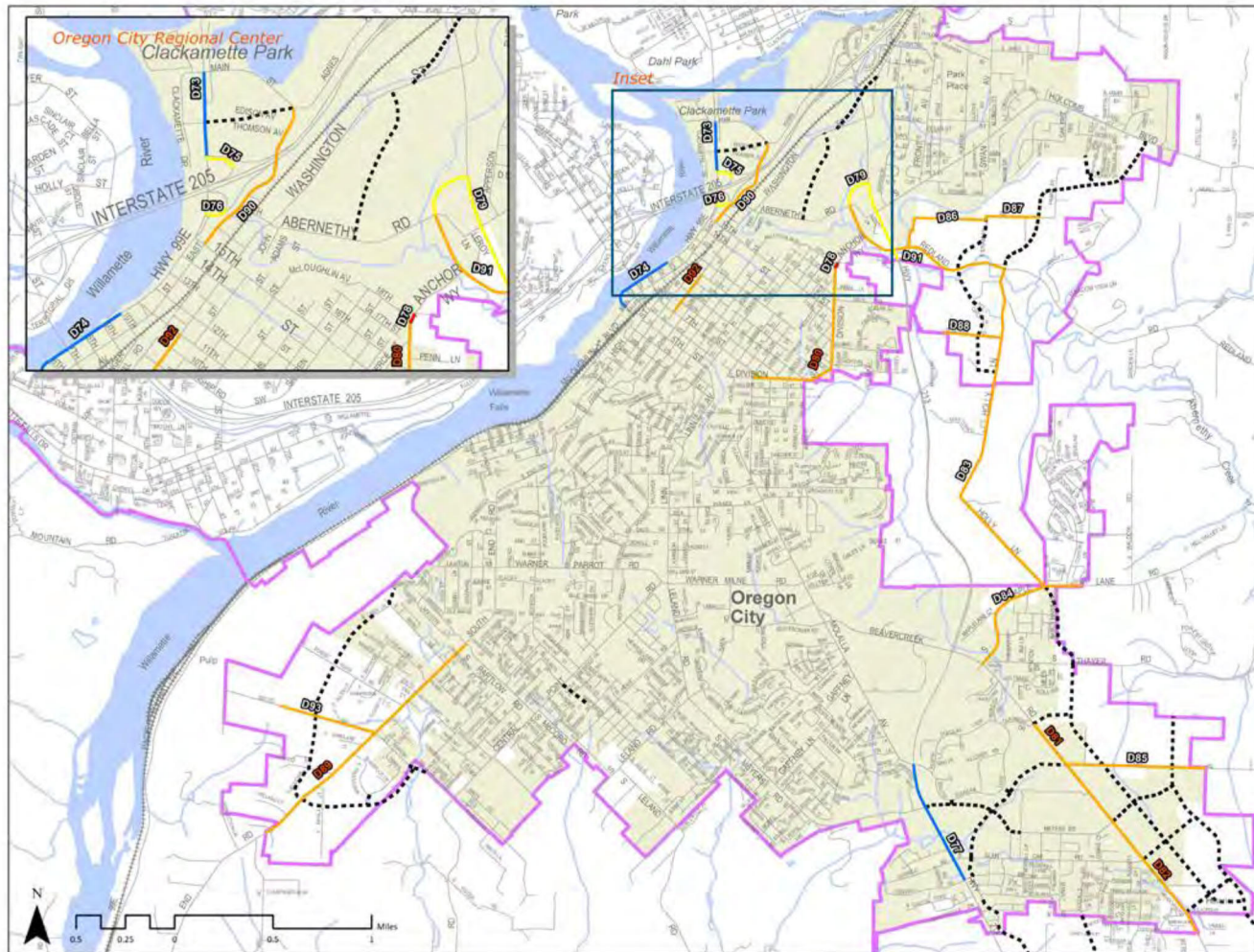
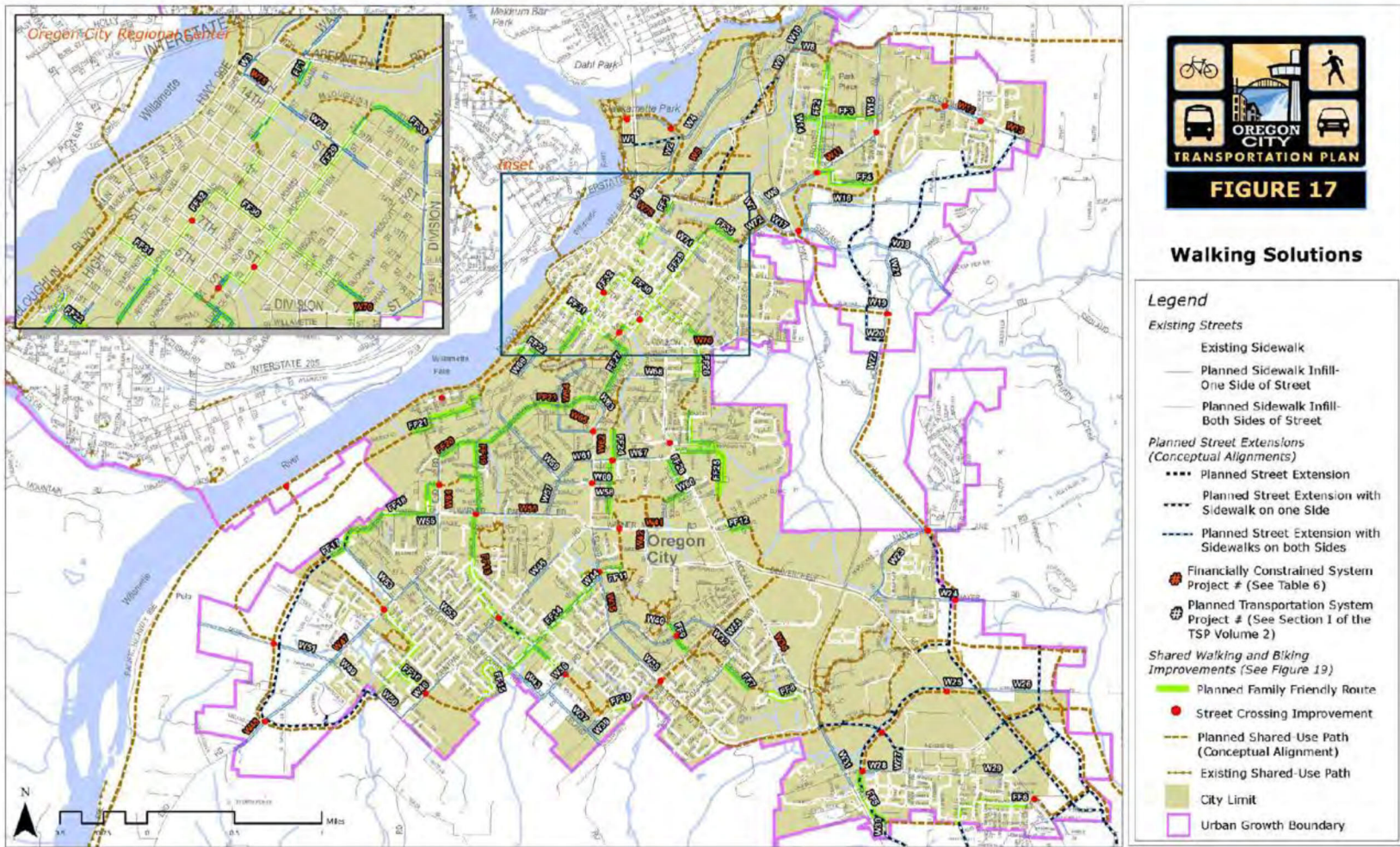


FIGURE 16

Planned Street and Intersection Expansions



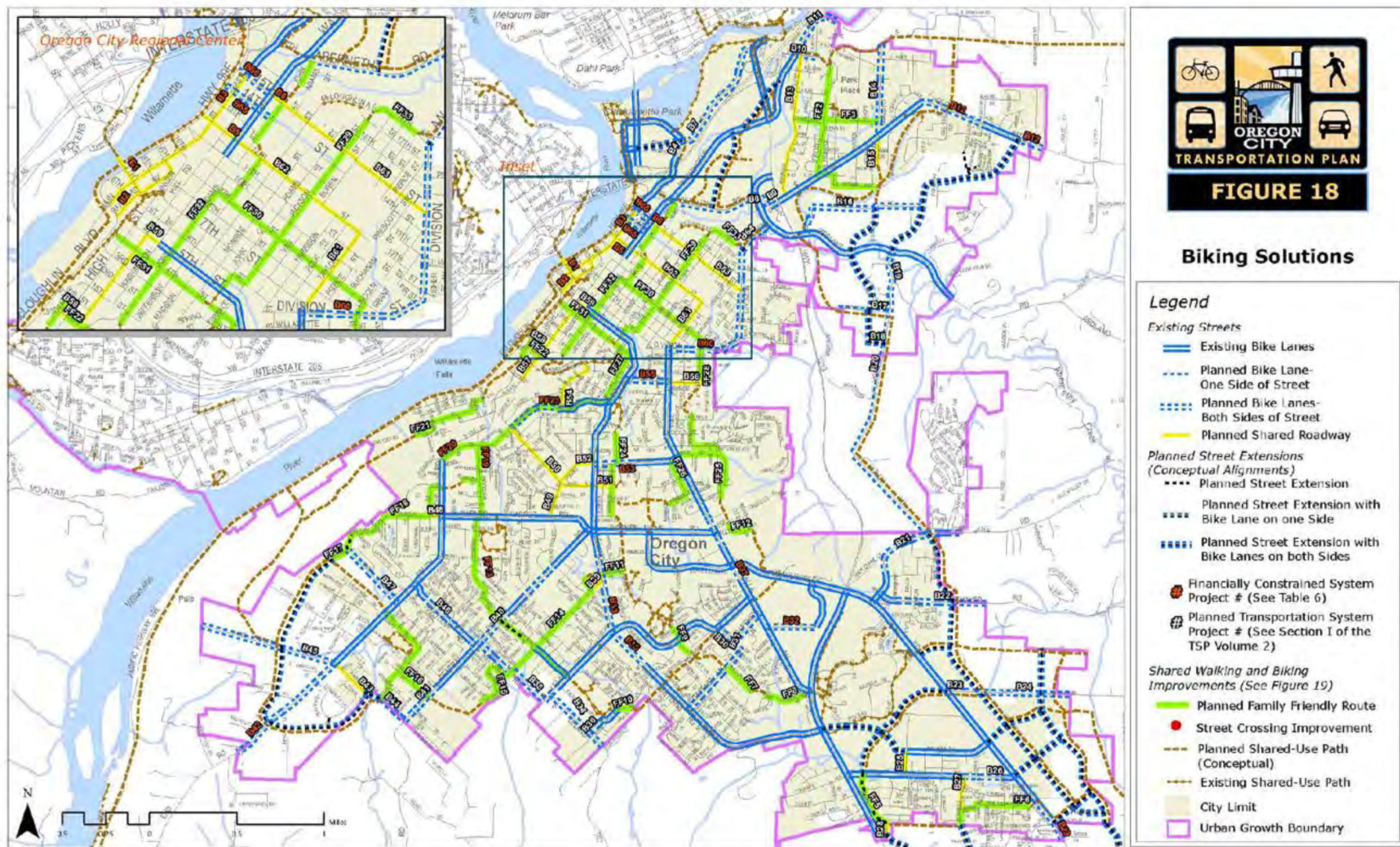
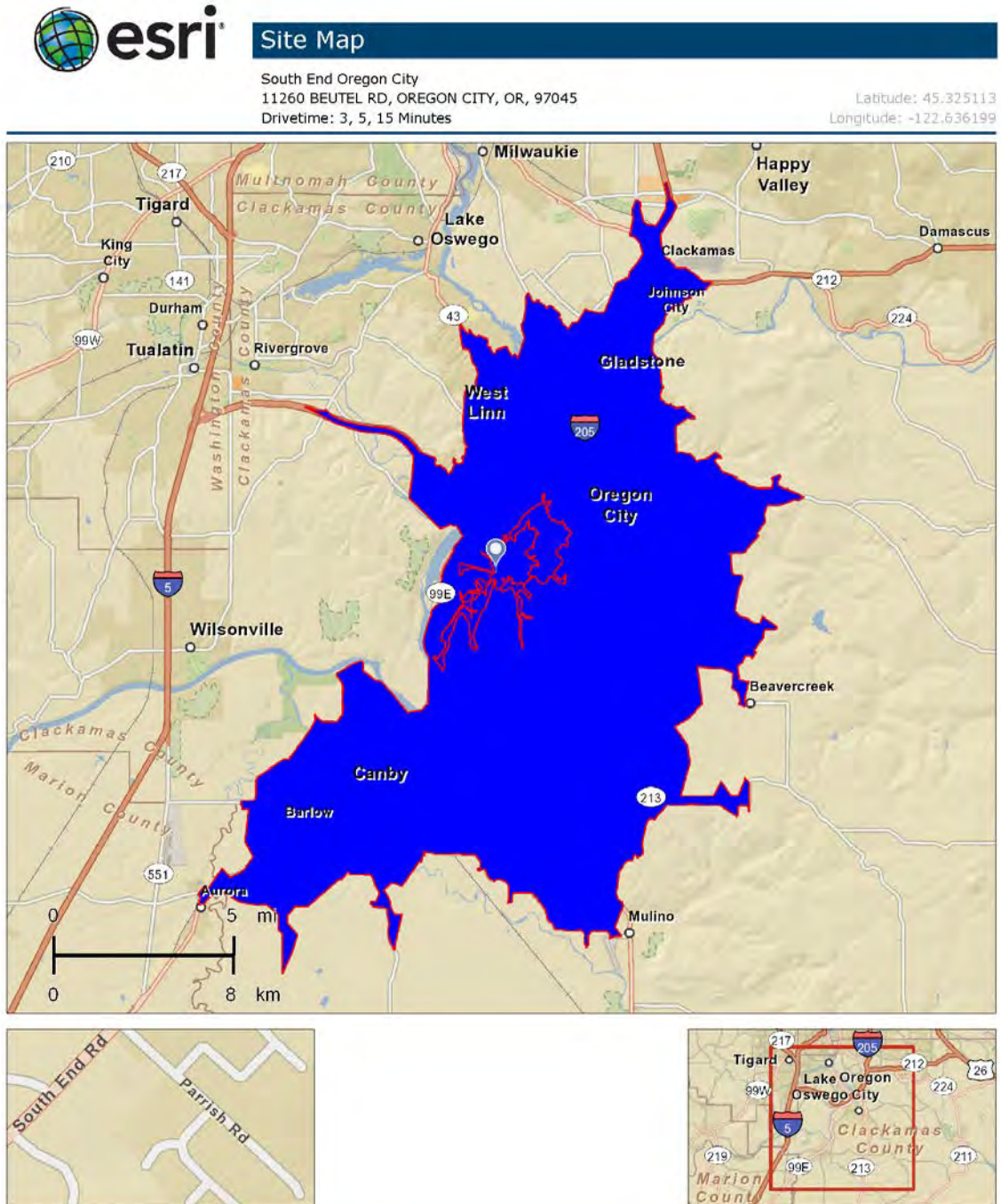


FIGURE 18

Biking Solutions

Appendix B: Retail Inflow/Outflow Characteristics

South End Trade Areas, 5 and 15 Minute Drive Times



September 06, 2012

South End Trade Area: 5 Minute Drive Time Retail Inflow/Outflow



Retail MarketPlace Profile

South End Oregon City
11260 BEUTEL RD, OREGON CITY, OR, 97045
Drive Time: 5 minutes

Latitude: -45.325112791
Longitude: -122.6361989

Summary Demographics

2010 Population	6,895
2010 Households	2,494
2010 Median Disposable Income	\$51,283
2010 Per Capita Income	\$27,932

Industry Summary	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Total Retail Trade and Food & Drink	44-45,722	\$70,674,268	\$13,388,771	\$57,285,497	68.1	14
Total Retail Trade	44-45	\$60,395,787	\$10,942,374	\$49,453,414	69.3	12
Total Food & Drink	722	\$10,278,481	\$2,446,397	\$7,832,083	61.5	3

Industry Group	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Motor Vehicle & Parts Dealers	441	\$14,186,028	\$2,008,602	\$12,177,426	75.2	2
Automobile Dealers	4411	\$11,913,838	\$1,454,963	\$10,458,875	78.2	1
Other Motor Vehicle Dealers	4412	\$1,150,150	\$419,159	\$730,991	46.6	1
Auto Parts, Accessories & Tire Stores	4413	\$1,122,041	\$134,480	\$987,561	78.6	0
Furniture & Home Furnishings Stores	442	\$1,702,317	\$161,209	\$1,541,108	82.7	0
Furniture Stores	4421	\$1,051,093	\$100,786	\$950,307	82.5	0
Home Furnishings Stores	4422	\$651,225	\$60,424	\$590,801	83.0	0
Electronics & Appliance Stores	4431	\$1,958,005	\$77,504	\$1,880,501	92.4	0
Bldg Materials, Garden Equip. & Supply Stores	444	\$2,869,113	\$226,905	\$2,642,208	85.3	2
Bldg Material & Supplies Dealers	4441	\$2,248,959	\$204,569	\$2,044,389	83.3	2
Lawn & Garden Equip & Supply Stores	4442	\$620,154	\$22,335	\$597,819	93.0	0
Food & Beverage Stores	445	\$12,912,080	\$1,314,865	\$11,597,215	81.5	0
Grocery Stores	4451	\$12,421,650	\$1,214,621	\$11,207,029	82.2	0
Specialty Food Stores	4452	\$242,218	\$18,800	\$223,417	85.6	0
Beer, Wine & Liquor Stores	4453	\$248,212	\$81,444	\$166,769	50.6	0
Health & Personal Care Stores	446,4461	\$1,486,834	\$337,477	\$1,149,357	63.0	1
Gasoline Stations	447,4471	\$8,073,680	\$4,089,127	\$3,984,552	32.8	1
Clothing & Clothing Accessories Stores	448	\$2,563,757	\$1,137,743	\$1,426,013	38.5	0
Clothing Stores	4481	\$1,925,541	\$9,101	\$1,916,440	99.1	0
Shoe Stores	4482	\$283,483	\$28,197	\$255,286	81.9	0
Jewelry, Luggage & Leather Goods Stores	4483	\$354,733	\$1,100,445	-\$745,713	-51.2	0
Sporting Goods, Hobby, Book & Music Stores	451	\$885,860	\$36,638	\$849,222	92.1	0
Sporting Goods/Hobby/Musical Instr Stores	4511	\$567,826	\$17,125	\$550,701	94.1	0
Book, Periodical & Music Stores	4512	\$318,034	\$19,513	\$298,521	88.4	0
General Merchandise Stores	452	\$10,066,191	\$938,359	\$9,127,832	82.9	0
Department Stores Excluding Leased Depts.	4521	\$3,970,173	\$324,860	\$3,645,312	84.9	0
Other General Merchandise Stores	4529	\$6,096,019	\$613,499	\$5,482,520	81.7	0
Miscellaneous Store Retailers	453	\$908,499	\$423,441	\$485,057	36.4	4
Florists	4531	\$37,041	\$33,213	\$3,828	5.4	1
Office Supplies, Stationery & Gift Stores	4532	\$194,881	\$263,330	-\$68,450	-14.9	1
Used Merchandise Stores	4533	\$95,143	\$33,659	\$61,483	47.7	0
Other Miscellaneous Store Retailers	4539	\$581,434	\$93,238	\$488,196	72.4	2
Nonstore Retailers	454	\$2,783,423	\$190,503	\$2,592,921	87.2	0
Electronic Shopping & Mail-Order Houses	4541	\$1,941,195	\$144,460	\$1,796,735	86.1	0
Vending Machine Operators	4542	\$40,459	\$46,043	-\$5,584	-6.5	0
Direct Selling Establishments	4543	\$801,770	\$0	\$801,770	100.0	0
Food Services & Drinking Places	722	\$10,278,481	\$2,446,397	\$7,832,083	61.5	3
Full-Service Restaurants	7221	\$4,138,355	\$1,061,728	\$3,076,627	59.2	1
Limited-Service Eating Places	7222	\$5,217,305	\$1,223,639	\$3,993,666	62.0	1
Special Food Services	7223	\$221,675	\$4,253	\$217,422	96.2	0
Drinking Places - Alcoholic Beverages	7224	\$701,147	\$156,778	\$544,368	63.5	0

Data Note: Supply (retail sales) estimates sales to consumers by establishments. Sales to businesses are excluded. Demand (retail potential) estimates the expected amount spent by consumers at retail establishments. Supply and demand estimates are in current dollars. The Leakage/Surplus Factor presents a snapshot of retail opportunity. This is a measure of the relationship between supply and demand that ranges from +100 (total leakage) to -100 (total surplus). A positive value represents 'leakage' of retail opportunity outside the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area. The Retail Gap represents the difference between Retail Potential and Retail Sales. Esri uses the North American Industry Classification System (NAICS) to classify businesses by their primary type of economic activity. Retail establishments are classified into 27 industry groups in the Retail Trade sector, as well as four industry groups within the Food Services & Drinking Establishments subsector. For more information on the Retail MarketPlace data, please view the methodology statement at <http://www.esri.com/library/whitepapers/pdfs/esri-data-retail-marketplace.pdf>.

Source: Esri and Infogroup

September 06, 2012

South End Trade Area: 15 Minute Drive Time Retail Inflow/Outflow



Retail MarketPlace Profile

South End Oregon City
11260 BEUTEL RD, OREGON CITY, OR, 97045
Drive Time: 15 minutes

Latitude: 45.325112791
Longitude: -122.6361989

Summary Demographics

2010 Population	102,924
2010 Households	37,782
2010 Median Disposable Income	\$48,237
2010 Per Capita Income	\$28,791

Industry Summary	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Total Retail Trade and Food & Drink	44-45,722	\$1,077,330,488	\$1,137,097,393	-\$59,766,906	-2.7	783
Total Retail Trade	44-45	\$920,882,342	\$946,760,736	-\$25,878,394	-1.4	547
Total Food & Drink	722	\$156,448,146	\$190,336,657	-\$33,888,512	-9.8	236

Industry Group	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Motor Vehicle & Parts Dealers	441	\$216,390,741	\$455,101,197	-\$238,710,456	-35.5	75
Automobile Dealers	4411	\$181,644,420	\$395,990,316	-\$214,345,896	-37.1	34
Other Motor Vehicle Dealers	4412	\$17,612,460	\$37,285,376	-\$19,672,916	-35.8	16
Auto Parts, Accessories & Tire Stores	4413	\$17,133,860	\$21,825,504	-\$4,691,644	-12.0	24
Furniture & Home Furnishings Stores	442	\$25,803,208	\$16,450,618	\$9,352,591	22.1	32
Furniture Stores	4421	\$16,005,950	\$9,632,804	\$6,373,146	24.9	13
Home Furnishings Stores	4422	\$9,797,259	\$6,817,813	\$2,979,445	17.9	19
Electronics & Appliance Stores	4431	\$29,828,845	\$10,022,383	\$19,806,462	49.7	29
Bldg Materials, Garden Equip. & Supply Stores	444	\$43,487,461	\$32,641,853	\$10,845,608	14.2	84
Bldg Material & Supplies Dealers	4441	\$34,137,088	\$25,889,930	\$8,247,157	13.7	53
Lawn & Garden Equip & Supply Stores	4442	\$9,350,373	\$6,751,922	\$2,598,451	16.1	31
Food & Beverage Stores	445	\$197,605,395	\$140,851,102	\$56,754,293	16.8	57
Grocery Stores	4451	\$190,083,957	\$130,015,832	\$60,068,124	18.8	31
Specialty Food Stores	4452	\$3,712,666	\$6,167,962	-\$2,455,295	-24.8	17
Beer, Wine & Liquor Stores	4453	\$3,808,773	\$4,667,308	-\$858,536	-10.1	9
Health & Personal Care Stores	446,4461	\$22,565,047	\$16,891,522	\$5,673,526	14.4	38
Gasoline Stations	447,4471	\$122,861,743	\$87,440,976	\$35,420,767	16.8	26
Clothing & Clothing Accessories Stores	448	\$39,103,128	\$32,537,572	\$6,565,555	9.2	31
Clothing Stores	4481	\$29,311,839	\$8,344,118	\$20,967,721	55.7	15
Shoe Stores	4482	\$4,362,438	\$3,932,537	\$429,901	5.2	8
Jewelry, Luggage & Leather Goods Stores	4483	\$5,428,851	\$20,260,916	-\$14,832,066	-57.7	8
Sporting Goods, Hobby, Book & Music Stores	451	\$13,499,207	\$10,832,056	\$2,667,151	11.0	48
Sporting Goods/Hobby/Musical Instr Stores	4511	\$8,628,522	\$9,131,994	-\$503,472	-2.8	44
Book, Periodical & Music Stores	4512	\$4,870,685	\$1,700,062	\$3,170,624	48.3	4
General Merchandise Stores	452	\$153,573,333	\$121,204,512	\$32,368,821	11.8	22
Department Stores Excluding Leased Depts.	4521	\$60,462,858	\$23,838,207	\$36,624,651	43.4	7
Other General Merchandise Stores	4529	\$93,110,475	\$97,366,305	-\$4,255,830	-2.2	16
Miscellaneous Store Retailers	453	\$13,873,333	\$17,109,735	-\$3,236,403	-10.4	99
Florists	4531	\$557,226	\$1,395,611	-\$838,385	-42.9	19
Office Supplies, Stationery & Gift Stores	4532	\$2,972,694	\$3,535,406	-\$562,713	-8.6	18
Used Merchandise Stores	4533	\$1,453,616	\$1,890,649	-\$437,033	-13.1	16
Other Miscellaneous Store Retailers	4539	\$8,889,797	\$10,288,068	-\$1,398,272	-7.3	47
Nonstore Retailers	454	\$42,290,901	\$5,677,210	\$36,613,691	76.3	5
Electronic Shopping & Mail-Order Houses	4541	\$29,608,284	\$2,763,217	\$26,845,066	82.9	1
Vending Machine Operators	4542	\$618,130	\$887,384	-\$269,254	-17.9	1
Direct Selling Establishments	4543	\$12,064,487	\$2,026,609	\$10,037,878	71.2	3
Food Services & Drinking Places	722	\$156,448,146	\$190,336,657	-\$33,888,512	-9.8	236
Full-Service Restaurants	7221	\$63,001,382	\$85,470,377	-\$22,468,994	-15.1	114
Limited-Service Eating Places	7222	\$79,473,702	\$91,422,034	-\$11,948,332	-7.0	87
Special Food Services	7223	\$3,379,839	\$4,409,562	-\$1,029,723	-13.2	11
Drinking Places - Alcoholic Beverages	7224	\$10,593,222	\$9,034,684	\$1,558,538	7.9	24

Data Note: Supply (retail sales) estimates sales to consumers by establishments. Sales to businesses are excluded. Demand (retail potential) estimates the expected amount spent by consumers at retail establishments. Supply and demand estimates are in current dollars. The Leakage/Surplus Factor presents a snapshot of retail opportunity. This is a measure of the relationship between supply and demand that ranges from +100 (total leakage) to -100 (total surplus). A positive value represents 'leakage' of retail opportunity outside the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area. The Retail Gap represents the difference between Retail Potential and Retail Sales. Esri uses the North American Industry Classification System (NAICS) to classify businesses by their primary type of economic activity. Retail establishments are classified into 27 industry groups in the Retail Trade sector, as well as four industry groups within the Food Services & Drinking Establishments subsector. For more information on the Retail MarketPlace data, please view the methodology statement at <http://www.esri.com/library/whitepapers/pdfs/esri-data-retail-marketplace.pdf>.

Source: Esri and Infogroup

September 06, 2012

Appendix C: Housing Development Forecast, South End Area, 2010-2035

Oregon City Household Growth Forecast, 2010-2035					
	2010	Est. 2015	Est. 2035	Change: 2010-15	Change: 2015-35
Households	11,974	13,216	17,047	1,242	3,831
Source: Metro Gamma forecast, Aug. 2012.					
Oregon City Household Growth Forecast, 2010-2035					
		2010-15	2015-25	2025-35	Change: 2015-35
South End PMA Household Change		1,242	1,915	1,915	3,831
South End Area Capture Rate					
Low Capture		0%	25%	35%	1,341
Medium Capture		0%	30%	40%	1,532
High Capture		0%	35%	45%	1,724
Projected Potential South End Housing Demand, 2015-2035					
	Low	Med	High		
Household Change	1,341	1,532	1,724		
Vacancy Rate (@ 4%)	56	64	72		
Total New Dwellings	1,397	1,596	1,796		
Projected Potential Housing Demand by Type, 2015-2035 (Dwellings)					
	Low	Med	High	Dwelling Mix Assumptio ns	
Single Family Detached	698	798	898	50%	
Townhomes	279	319	359	20%	
Multifamily	335	383	431	24%	
Assisted Living	84	96	108	6%	
Total New Dwellings	1,397	1,596	1,796	100%	

South End Capture Rates by Time Period (Dwellings)						
	2010 - 2014	2015 - 2020	2020 - 2025	2025 - 2030	2030 - 2035	Total
Single family (dwellings)	*	175 to 224	175 to 224	175 to 224	175 to 224	698 to 898
Townhomes (dwellings)	*	70 to 90	70 to 90	70 to 90	70 to 90	279 to 359
Multifamily (dwellings)	*	-	-	168 to 215	168 to 215	335 to 431
Assisted Living (units)	*	-	-	-	84 to 108	84 to 108
Total New Dwellings	*	244 to 314	244 to 314	412 to 530	496 to 637	1,397 to 1,796
* note: nominal levels of development are expected over next few years, as infrastructure plans, funding and zoning classificaitons are solidified.						
South End Buildable Land Need for Residential Development by Year 2035 (acres)						
Land Demand (acres)	Low	Med	High	Density Assumption		
Single Family	116	133	150	6.0	per acre	
Townhomes	17	20	22	16.0	per acre	
Multifamily	10	12	13	32.0	per acre	
Assisted Living	3	3	3	45.0	per acre	
Net Acre	147	168	189			
or Net Acre Avg. (rounded)	10	10	10			
Plus roads/easements	32	37	41	18%	percent	
Buildable Land Need	179	205	230			

Appendix D: Office and Retail/Commercial Development Forecast
South End Area, 2010-2035 (gross floor area in square feet)

Potential South End Retail Capture					
Estimated Capture Rate:	25% of trade leakage from area within 5 minute drive				
New South End Households	1,685				
Households within 5 Min. Drive	3,370				
	Proj. 2035 Retail Gap*	South End Capture (@25%)	Support-able Floor Area (SF)	Support- able Net Acres	Est Jobs (on site)
Retail	\$90,258,836	\$22,564,709	47,505	3.1	95
Food & Drink	\$14,776,038	\$3,694,009	7,777	0.5	16
Total	\$105,034,873	\$26,258,718	55,282	3.6	111
Possible tenants:					
convenience store					
specialty food store					
full-service restaurant					
bakery/deli					
day care center					
upper-level office/services					
* derived from Table x.					
Source: analysis by FCS GROUP; based on mid-point growth forecast for South End area per Oregon City TSP and Metro gamma forecast. Assumes current levels of retail spending and retail supply remain constant Assumes average annual sales per square foot of \$475; and average building density level of 0.35 FAR (floor to area ratio).					

Appendix B



MEMORANDUM

Land Use Evaluation – October 18, 2013

This memorandum has been prepared in order to summarize the potential number of units and densities within the South End Concept Plan area. We analyzed the Concept Plan to provide an estimate of the maximum and minimum densities which may be possible assuming the development of the planning areas. For the purposes of the density calculations, developed areas within the City's existing boundaries, major future roadways, and open spaces have been omitted from the calculations. The plan area also has been adjusted to reflect the pre-2002 UGB area and 2002 UGB expansion area. The following table illustrates the density ranges possible within the current conceptual development scenario:

Concept Plan Designation	Potential Zoning	Gross Area (Acres)	Net Area (-20%) ² (Acres)	Lot Size Range (sf)	High Density Range ^{3,5} (Units)	Low Density Range ^{4,5,6} (Units)	Average Density (Units)
Pre - 2002 UGB Area							
Large Lot Residential	R10 - R8, or R6	111.6	89.3	6,000 - 10,000 x 80%	544	326	435
Medium Lot Residential	R5 - R3.5	99.3	79.5	3,500 - 5,000 x 80%	830	581	706
Small Lot Residential	R3.5 - R-2	23.0	18.4	2,000 x 80%	336	256	296
Neighborhood Commercial	MUR	11.2	9.0	No Density Assumed			
Totals		245.1	196.1		1,711	1,164	1,438
Units Per Net Acre					8.8	6.0	7.4
Concept Plan Designation	Potential Zoning	Gross Area (Acres)	Net Area (-20%) ² (Acres)	Lot Size Range (sf)	High Density Range ^{3,5} (Units)	Low Density Range ^{4,5,6} (Units)	Average Density (Units)
2002 UGB Area							
Large Lot Residential	R10 - R8, or R6	133.1	106.5	6,000 - 10,000 x 80%	649	389	519
Medium Lot Residential	R5 - R3.5	33.0	26.4	3,500 - 5,000 x 80%	276	193	234
Small Lot Residential	R3.5 - R-2			2,000 x 80%			
Neighborhood Commercial / Mixed Use	MUR			No Density Assumed			
Totals		166.1	132.9		925	582	754
Units Per Net Acre					6.9	4.4	5.6
Concept Plan Designation	Potential Zoning	Gross Area (Acres)	Net Area (-20%) ² (Acres)	Lot Size Range (sf)	High Density Range ^{3,5} (Units)	Low Density Range ^{4,5,6} (Units)	Average Density (Units)
Combined South End Plan Area							
Large Lot Residential	R10 - R8, or R6	244.7	195.8	6,000 - 10,000 x 80%	1,193	716	955
Medium Lot Residential	R5 - R3.5	132.3	105.9	3,500 - 5,000 x 80%	1,106	774	940
Small Lot Residential	R3.5 - R-2	23.0	18.4	2,000 x 80%	336	256	296

Neighborhood Commercial / Mixed Use	MUR	11.2	9.0	No Density Assumed			
Totals		400.0	320.0		2,637	1,747	2,192
Average Density Per Net Acre					8.0	5.3	6.7

1. The Gross Area of the plan includes the developable areas of the plan which are located outside of the City's limits. This figure excludes previously identified resource corridors and existing rights-of-way. This figure also excludes future collectors and arterials within the plan area.
2. The Net Developable Area has been calculated by reducing the Gross Area by 20% to account for both new and existing local roads and infrastructure necessary to serve the development area.
3. The high density calculation assumes development at 80% of the units available within the highest density zone within the range of zoning districts shown.
4. The low density calculation assumes development at 80% of the lowest density zoning available within the range of zoning districts shown.
5. Density Range assumes a 5% increase for Accessory Dwelling Units (ADU).
6. No ADU's have been assumed within the lower range of the small lot residential category. This omission accounts for the fact that ADU's are not permitted within the R-2 zoning district.

The table above indicates that a potential buildable range of between 1,747 and 2,637 dwelling units within the South End Plan area, with a mean of 2,192 units. State and Metro requirements indicate that UGB expansion areas within the Metro region must provide for average densities of 8 units per acre for areas added prior to 2002 and 10 units per acre for areas added in 2002 or later. The net developable area of the pre-2002 expansion area is 196 acres, resulting in a need to provide for approximately 1,568 dwelling units at 8 units per acre. The net developable area of the 2002 expansion area is 133 acres, resulting in the need to provide for 1,330 dwelling units at 10 units per acre. Therefore the Metro target for the provision of total units in South End is approximately 2,898 units, 261 more units than provided at the high end of the South End Concept Plan density range.



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MEMORANDUM

DATE: October 17, 2013
TO: South End Concept Plan Team
FROM: Carl Springer, Kevin Chewuk

SUBJECT: South End Concept Plan- Transportation Element

P12125-000

This memorandum documents our recommendations for the South End Concept Plan transportation element. This transportation element refines the 2013 Transportation System Plan (TSP) based on the latest growth estimates and goals for the Concept Plan. The outcomes include a listing of the recommended multi-modal transportation improvements for South End along with a list of requirement amendments to the TSP to implement them.

Transportation Vision for the South End Concept Plan

The South End Concept Plan envisions an interconnected network of multi-modal streets, one that takes advantage of the relatively flat terrain at the top of the bluff, yet builds upon and connects with the existing streets in the area. The design of the streets will represent the context of the neighborhood, reinforcing its rural nature while accommodating all modes of travel for users of all ages and abilities. The streets will be more than just places for automobile travel, recognizing that they are also where people gather, walk, bike, access transit, and park their vehicles. They will be designed to safely connect people to where they need to go, giving residents, and visitors more travel choices to destinations.

As a major street connection through the Concept Plan area, South End Road will continue to connect residents, commuters, and visitors to the regional transportation system. It will be designed in a manner to serve the through travel demand, while still being viewed as an asset to the neighborhood rather than a barrier. Bicyclists will be accommodated with an exclusive on-street bike facility that is physically separated from motor vehicle traffic with a parking lane and/or a buffer. Where on-street parking is allowed, the cycle track will be located to the curb-side of the parking (in contrast to bike lanes). Those walking will be accommodated with sidewalks buffered from the street with landscaping and/or street furnishings. Safe and comfortable pedestrian and bicycle crossings will be provided where facilities cross South End Road.

To the east and west of South End Road will be a connected network of streets and shared-use paths providing on and off street connections to schools, parks, housing and shopping. Primary street connections to South End Road for those driving in the Concept Plan area will be via Deer Lane-Madrona Drive, Beutel-Parrish Road, and Rose Road. These streets will employ design techniques to create safe, slow streets without significantly changing vehicle capacity, mitigating the impacts of the traffic on the adjacent housing and providing greater balance between safety and mobility.

Those walking and biking in the Concept Plan area will be accommodated primarily through street side sidewalks or pathways, or on-street shared-roadways. Off the main street system will be a network of comfortable, low-stress walking and biking routes between neighborhoods and local parks, schools, and



shopping areas. It is intended to attract less experienced walkers and bikers, acting like a linear park system linking parks, schools, jobs and other destinations in the Concept Plan area to other parts of the City.

Growth

Land use is a key factor in developing a functional transportation system. The amount of land that is planned to be developed, the type of land uses, and how the land uses are mixed together have a direct relationship to the expected demands on the transportation system. Understanding the amount and type of land use is critical to maintaining or enhancing transportation system operations.

The Urban Growth Boundary (UGB) for the Portland metropolitan area was expanded in 2002 by about 200 acres to accommodate future growth within the South End area. This land, coupled with another 300 acres in the immediate area, is currently zoned for future urban uses by Clackamas County¹, but is intended to be rezoned as part of this concept plan and made available for housing and economic development.

The proposed rezoning is expected to include as many as 2,900 housing units and 340,000 square feet of neighborhood commercial/mixed uses². Prior to establishing the needed zoning to allow for such development, the city is required to update all public facilities plans, including the 2013 Transportation System Plan (TSP).

In updating the TSP, the impact of the increased vehicle trip generation on the surrounding transportation system, as a result of the proposed rezone, will be evaluated through the year 2035. Any improvements needed to the transportation system to maintain adequate operations will be identified for incorporation into the TSP.

Estimating Driving Trips

A determination of future street network needs requires the ability to accurately forecast travel demand resulting from estimates of future population and employment for the South End Concept Plan area, and the rest of the City and Metro region. The objective of the transportation planning process is to provide the information necessary for making decisions about how and where improvements should be made to create a safe and efficient transportation system that provides travel options.

The travel demand forecasting process generally involves estimating travel patterns for new development based on the decisions and preferences demonstrated by existing residents, employers and institutions around the region. Travel demand models are mathematical tools that help us understand future commuter, school and recreational travel patterns including information about the length, mode and time of day a trip will be made. The latest travel models are suitable for motor vehicle and transit planning purposes, and can produce total volumes for autos, trucks and buses on each street and highway in the system. Comparing

¹ Clackamas County Zoning. http://www.clackamas.us/planning/documents/ZoningFull_17Sept2012.pdf

² South End Concept Plan Preliminary Land Use Evaluation, 3J Consulting, Draft July 29, 2013



outputs with observed counts and behaviors on the local system refines model forecasts. This refinement step is completed before any evaluation of system performance is made. Once the traffic forecasting process is complete, the 2035 volumes are used to determine the areas of the street network that are expected to be congested and that may need future investments to accommodate growth. Additional details on the travel forecasting can be found in Section E: Model Assumptions, Volume II of the 2013 Oregon City TSP.

Land Use and Motor Vehicle Trip Assumptions

As of August 2013, the South End Concept Plan includes about 2,886 housing units and two neighborhood commercial/mixed-use areas with approximately 340,000 square feet. To convert concept plans of neighborhood commercial land uses into forecasts in the Metro travel demand model, estimates of land use by acreage were converted into employment (number of retail employees or other employees). The following Table 1 describes the assumptions that were used. For the recent update to the Oregon City TSP, vehicle trips within the South End Concept Plan area were estimated based on around 300 fewer housing units and without around 340,000 square feet of neighborhood commercial/mixed uses.

Vehicle trips that would be generated by the Concept Plan area were estimated by applying the Metro Regional Travel Forecast model trip generation rates by land use type. Overall, the South End Concept Plan area is expected to generate about 2,000 motor vehicle trips during the p.m. peak hour, or 425 more than what was assumed in the 2013 TSP.

Table 1: Land Use Assumptions for the South End Concept Plan

Scenario	Housing Units	Retail Employees	Other Employees	PM Peak Hour Vehicle Trips Ends
2013 TSP Update*	2,580	0	163	1,565
South End Concept Plan	2,886	204	163	1,991

Source: *2013 Oregon City Transportation System Plan

Serving Growth

The starting point for the 2035 performance analysis relied on the list of street system improvement projects contained in the recently adopted Oregon City Transportation System Plan and the Draft Clackamas County Transportation System Plan. These projects (shown in Table 2 and Figure 7 later in this document) represent only those that are expected to be funded, and therefore can be used in the baseline traffic forecasts for the South End Concept Plan analysis for 2035. Additional transportation projects will be needed to support growth in the South End Concept Plan area, however, they cannot be assumed for the baseline traffic analysis.

**Table 2: Funded Street System Improvements**

Project	Location	Project Source
Install a traffic signal at the South End Road/ Warner Parrott Road intersection with dedicated left turn lanes for the South End Road approaches to Warner Parrott Road	Outside of the Concept Plan area	2013 Oregon City TSP Project D32
Install a roundabout at the South End Road/ Lafayette Avenue-Partlow Road intersection	Inside the Concept Plan area	2013 Oregon City TSP Project D33
Install a roundabout at the South End Road/ Beutel Road-Parrish Road intersection	Outside of the Concept Plan area	2013 Oregon City TSP Project D41
Install a roundabout at the South End Road/ Deer Lane extension intersection	Inside the Concept Plan area	2013 Oregon City TSP Project D42
Extend Deer Lane from Rose Road to Buetel Road as a Residential Collector	Inside the Concept Plan area	2013 Oregon City TSP Project D51
Extend Deer Lane east from Buetel Road to Central Point Road as a Residential Collector	Inside the Concept Plan area	2013 Oregon City TSP Project D52
Extend Madrona Drive to Deer Lane as a Family Friendly Collector	Inside the Concept Plan area	Modified version of 2013 Oregon City TSP Project D53 (Change from Residential Collector to Family Friendly Collector)
Complete the gap between Parrish Road as a Residential Collector	Inside the Concept Plan area	2013 Oregon City TSP Project D65
Improve South End Road from Partlow Road to south of South End Court to a Residential Minor Arterial	Inside the Concept Plan area	Modified version of 2013 Oregon City TSP Project D89 (Street type changes for two segments from Residential to Mixed-Use)
Improve South End Road from south of South End Court to north of Fandango Drive to a Mixed-Use Minor Arterial		
Improve South End Road from north of Fandango Drive to north of Navajo Way as a Residential Minor Arterial		
Improve South End Road from north of Navajo Way to north of the Deer Lane extension as a Mixed-Use Minor Arterial		
Improve South End Road from north of the Deer Lane extension south to the UGB as a Residential Minor Arterial		
Improve Beutel Road north of South End Road as a Residential Collector*	Inside the Concept Plan area	2013 Oregon City TSP Project D93

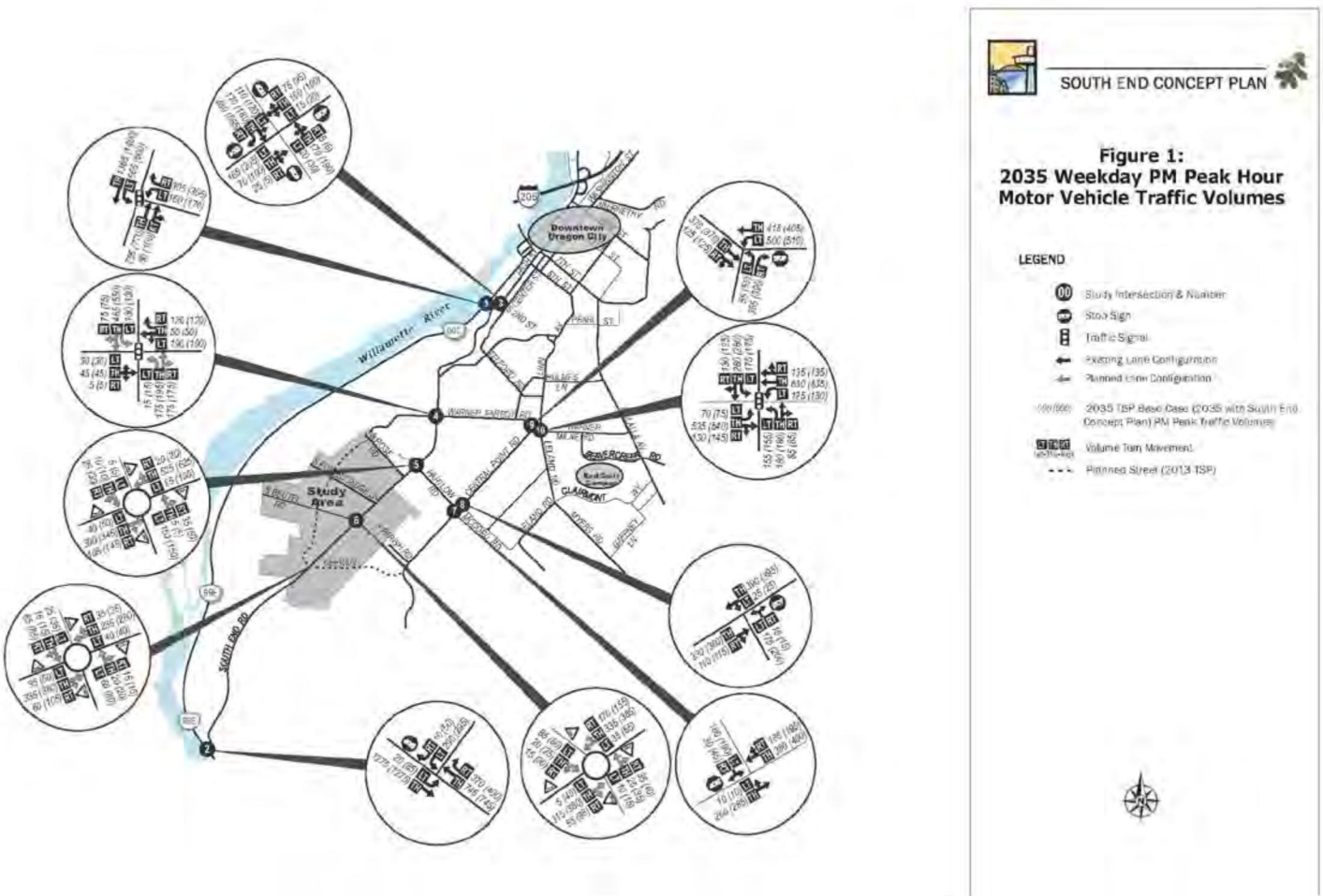
* The Beutel Road improvement project (Project D93) included on the "Not Likely to be Funded" list of the TSP was also assumed since it is a collector street within the South End Concept Plan area. It would need to be improved before development could occur.

2035 Motor Vehicle Operations

Future traffic forecasts were prepared for 2035 for two major scenarios:

- **2035 TSP Base Case** – this assumes the 2013 TSP Update land use within the concept plan area as described in Table 1. It includes the street system improvement projects listed in the "Serving Growth" section and the traffic volumes shown in Figure 1.
- **2035 With South End Concept Plan** – this scenario assumes the highest level of potential development for the South End Concept Plan area. It also includes the street system improvement projects listed in the "Serving Growth" section and the traffic volumes shown in Figure 1.

Figure 1: 2035 Motor Vehicle Traffic Volumes (PM Peak)





Motor vehicle conditions were evaluated during the 2035 evening peak hour at the ten intersections reviewed, in addition to the planned South End Road/Deer Lane extension intersection. The evaluation utilized 2000 Highway Capacity Manual methodology for signalized and 2010 Highway Capacity Manual methodology for unsignalized intersections. Two common measures of intersection performance are level of service (LOS) and volume-to-capacity (v/c) ratios.

Level of service (LOS) is similar to a report card rating (A through F) and is 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 long queues and delays.

Volume-to-capacity (V/C) ratios are decimal representations (between 0.0 and 1.0) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic flow rate by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.0, congestion increases and performance is degraded. If the ratio is greater than 1.0, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

All study intersections must operate at or below the adopted performance measures or mitigation could be necessary to approve future growth. The adopted intersection mobility targets vary by jurisdiction of the roadways. Two of the intersections reviewed are under state jurisdiction (along McLoughlin Boulevard), while the remaining eight intersections are under the jurisdiction of Oregon City. All intersections under State jurisdiction must comply with the v/c ratios in the 1999 Oregon Highway Plan (OHP), while intersections under City jurisdiction must comply with the v/c ratios in the 2013 TSP. Both the OHP and TSP require a v/c ratio of 0.99 to be met at the intersections reviewed during the evening peak hour.

After assuming the street system improvement projects with expected funding contained in the recently adopted Oregon City Transportation System Plan and the Draft Clackamas County Transportation System Plan, three intersections, including the McLoughlin Boulevard/ South End Road, South End Road/ South 2nd Street and Warner Parrott Road/ Central Point Road intersections, are expected to exceed mobility targets. Each of these intersections were previously forecasted to exceed standards in the 2013 Oregon City TSP and Clackamas County TSP. The following details further improvements (if any) that are needed at these intersections to comply with the mobility targets.

- **McLoughlin Boulevard/ South End Road intersection:** This intersection is located outside of the Urban Growth Boundary for the Portland Metropolitan area, and therefore was not evaluated in the 2013 Oregon City TSP. It was, however, examined as part of the 2013 Clackamas County TSP Update. While no improvements were identified for this intersection under the County's "Full-Build" improvement scenario (which includes all funded and unfunded street system improvements in the



County), the intersection operations would be expected to improve slightly³. Since the recent Clackamas County TSP Update did not identify any feasible or fundable solutions at this intersection, and the intersection is outside of the South End Concept Plan area, no additional improvements are recommended with the South End Concept Plan.

- **South End Road/ South 2nd Street intersection:** An improvement project on the “Not likely to be Funded” project list of the 2013 Oregon City TSP was identified for this intersection. The project (Project D31) would add a traffic signal at the intersection. With this improvement, the intersection would comply with the mobility target.
- **Warner Parrott Road/ Central Point Road intersection:** An improvement project on the “Not likely to be Funded” project list of the 2013 Oregon City TSP was identified for this intersection. The project (Project D34) would restrict left turns from Central Point Road to Warner Parrott Road and install a roundabout at the Warner Parrott Road-Warner Milne Road/ Linn Avenue-Leland Road intersection. To make a left turn from Central Point Road to Warner Parrott Road, drivers would have to make a right onto Warner Parrott Road and travel through the roundabout at the Warner Parrott Road-Warner Milne Road/ Linn Avenue-Leland Road intersection. With this improvement, the intersection would comply with the mobility target.

³ 2013 Clackamas County TSP Update, Full Build Intersection Operations PM Peak Hour

**Table 3: 2035 Motor Vehicle Operations (PM Peak Period)**

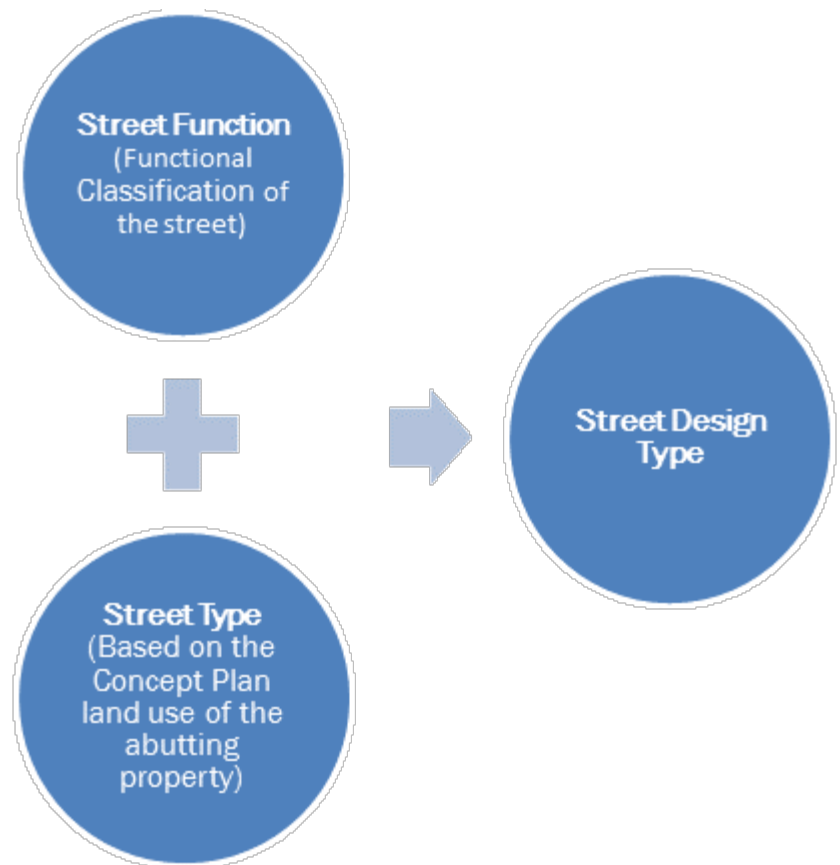
Intersection	Intersection Mobility Target	2035 TSP Base Case		2035 with South End Concept Plan		2035 with South End Concept Plan and Mitigations		Planned Intersection Solution
		Volume/ Capacity	Level of Service	Volume/ Capacity	Level of Service	Volume/ Capacity	Level of Service	
McLoughlin Boulevard/ South 2 nd Street	0.99 v/c	0.95	D	0.98	D	-	-	N/A
McLoughlin Boulevard/ South End Road	0.75 v/c	0.89	F	1.04	F	*	*	N/A; Clackamas County TSP Full Build Projects
South End Road/ South 2 nd Street	0.99 v/c	0.81	E	1.02	F	0.56	A	Install a traffic signal
South End Road/ Warner Parrott Road	0.99 v/c	0.61	A	0.66	A	-	-	Traffic signal; left turns lanes on South End Road
South End Road/ Lafayette Avenue-Partlow Road	0.99 v/c	0.64	A	0.77	B	-	-	Install a roundabout
South End Road/ Beutel Road-Parrish Road	0.99 v/c	0.42	A	0.52	A	-	-	Install a roundabout
Central Point Road/ Partlow Road	LOS E	0.59	D	0.69	D	-	-	N/A
Central Point Road/ McCord Road	LOS E	0.61	D	0.74	E	-	-	N/A
Warner Parrott Road/ Central Point Road	0.99 v/c	>1.20	F	>1.20	F	0.64	C	Restrict left turns from Central Point Road to Warner Parrott Road
Warner Parrott Road-Warner Milne Road/ Linn Avenue-Leland Road	0.99 v/c	0.92	E	0.94	E	0.81	B	Install a roundabout
Supplemental Intersection								
South End Road/Deer Lane Extension	0.99 v/c	0.37	A	0.46	A	-	-	Install a roundabout

Bolded Red and Shaded indicates intersection exceeds v/c mobility target or operates with a Level of service "F"

*No intersection improvements assumed in Clackamas County TSP. However, under the "Full-Build" improvement scenario (which included all funded and unfunded street system improvements), the intersection operations would be expected to improve slightly.

Multi-Modal Street System

The 2013 Oregon City TSP classified the street system into a hierarchy organized by function and street type (representative of their places). These classifications ensure that the streets reflect the neighborhood through which they pass, consisting of a scale and design appropriate to the character of the abutting properties and land uses. The classifications also provide for and balance the needs of all travel modes including pedestrians, bicyclists, transit riders, motor vehicles and freight. Within these street classifications, context sensitive design may result in alternative cross-sections. The Oregon City multi-modal street system was modified to reflect the proposed zoning designations in the South End Concept Plan area, and can be seen in Figure 2.



Multi-Modal Street Function

The functional classification of roadways is a common practice in the United States. Traditionally, roadways are classified based on the type of vehicular travel it is intended to serve (local versus through traffic). In Oregon City, the functional classification of a roadway (shown in Figure 2 for the South End Concept Plan area) determines the level of mobility for all travel modes, defining its design characteristics (such as minimum amount of travel lanes), level of access and usage within the City and region. The street functional classification system recognizes that individual streets do not act independently of one another but instead form a network that works together to serve travel needs on a local and regional level. From highest to lowest intended usage, the classifications are freeway, expressway, major arterials, minor arterials, collectors and local streets. Roadways with a higher intended usage generally provide more efficient motor vehicle traffic movement (or mobility) through the City, while roadways with lower intended usage provide greater access for shorter trips to local destinations.

Three classifications were designated for the South End Concept Plan area, including Minor Arterial Street (South End Road), Collector Streets (Buetel Road-Parrish Road, Rose Road, and Deer Lane extension), and local streets (all other streets in the South End Concept Plan area).

Multi-Modal Street Type

Oregon City further classifies the roadways within the City based on the neighborhood it serves and the intended function for pedestrians, bicyclists and transit riders in that specific area. Within the context of Oregon City's multi-modal street system, the street type of a roadway defines its cross-section characteristics

and determines how users of a roadway interact with the surrounding land use. Since the type and intensity of adjacent land uses and zoning directly influence the level of use by pedestrians, bicyclists and transit riders, the design of a street (including its intersections, sidewalks, and transit stops) should reflect its surroundings.

The street types strike a balance between street functional classification, adjacent land use, zoning designation and the competing travel needs by prioritizing various design elements. Three street types were designated for the South End Concept Plan area:

- **Mixed-Use Streets** typically have a higher amount of pedestrian activity and are often on a transit route. These streets should emphasize a variety of travel choices such as pedestrian, bicycle and transit use to complement the development along the street. Since mixed-use streets typically serve pedestrian oriented land uses, walking should receive the highest priority of all the travel modes. They should be designed with features such as wider sidewalks, traffic calming, pedestrian amenities, transit amenities, attractive landscaping, on-street parking, pedestrian crossing enhancements and bicycle lanes.
- **Residential Streets** are generally surrounded by residential uses, although various small shops may be embedded within the neighborhood. These streets often connect neighborhoods to local parks, schools and mixed-use areas. They should be designed to emphasize walking, while still accommodating the needs of bicyclists and motor vehicles. A high priority should be given to design elements such as traffic calming, landscaped buffers, green street treatments, walkways/ pathways/ trails, on-street parking and pedestrian safety enhancements.
- **Family Friendly Streets** to help encourage active transportation by providing comfortable, low-stress routes between neighborhoods and local parks, schools, and shopping areas. The network is generally off the main street system and serves as a greenway that links parks, schools, jobs and other destinations in the City through a network of shared-use streets and off-street shared-use paths. These routes are considered walking and biking streets that are also used by motor vehicles for local access.

Low volume, low speed streets are modified to prioritize the through movement of bicyclists and pedestrians while maintaining local access for automobiles. These routes typically include wayfinding signage and pavement markings, as well as traffic calming features that reduce motor vehicle speeds and discourage through traffic. Where these facilities cross major roadways it is important to provide safe and comfortable pedestrian and bicycle crossings. Further enhancements may include “green street” features such as bio-swailes and street trees, pervious concrete or asphalt, in addition to wider sidewalks and improved pedestrian amenities (e.g., benches and pedestrian-scale lighting).

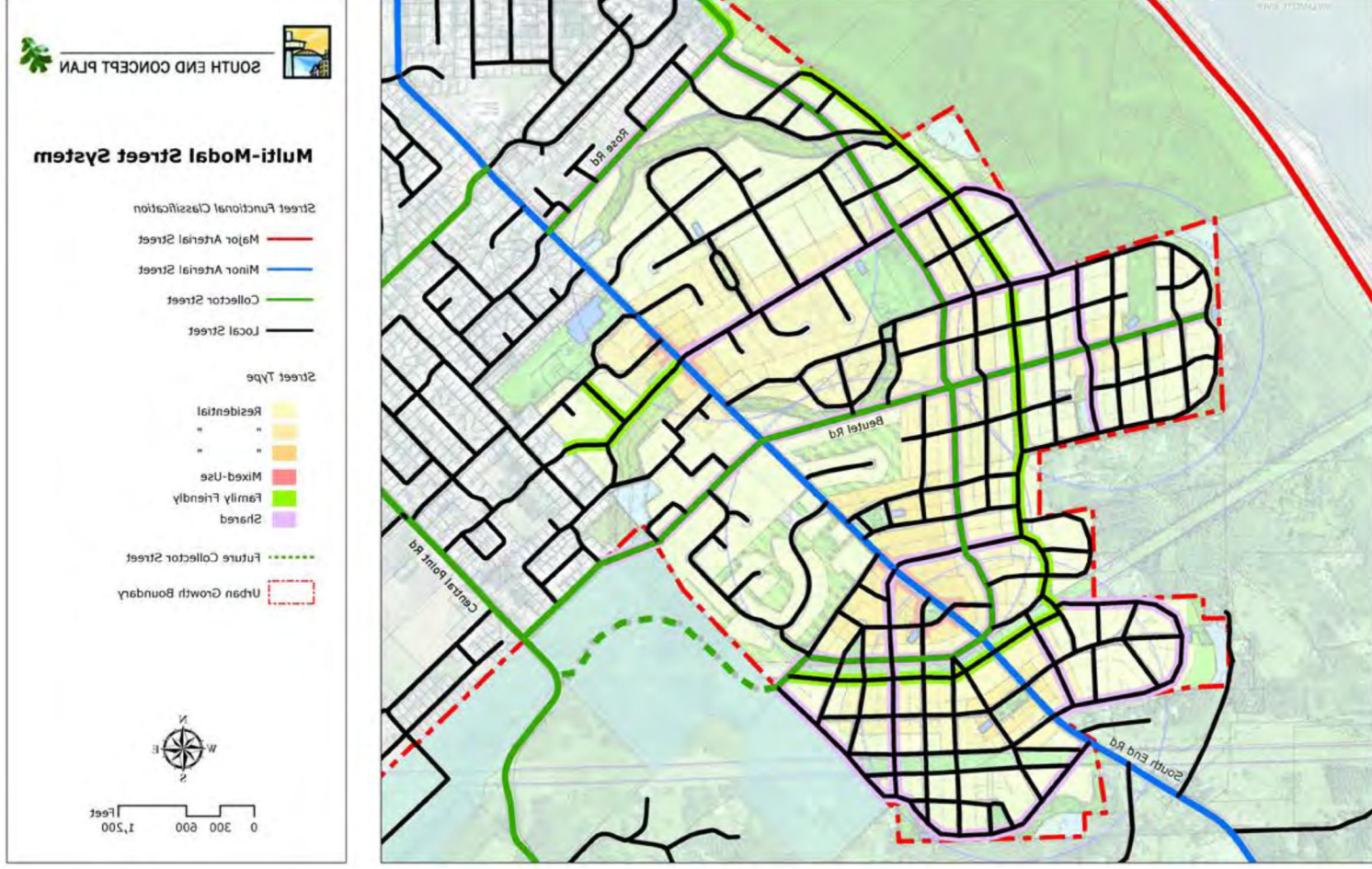
- **Shared Streets** are roadways where bicyclists and motorists share the same travel lane. The most suitable roadways for shared bicycle use are those with low speeds (25 mph or less) and low traffic volumes (3,000 vehicles per day or fewer). These streets serve to provide continuity to other bicycle facilities (e.g. bicycle lanes) and should include shared lane markings. Common practice is to sign the route with standard Manual on Uniform Traffic Control Devices (MUTCD) green bicycle route signs with directional arrows. Shared roadways can also be signed with innovative signing that provides directional information in terms of bicycling minutes or distance (e.g., “South End Road, 3 minutes, ½ mile”).

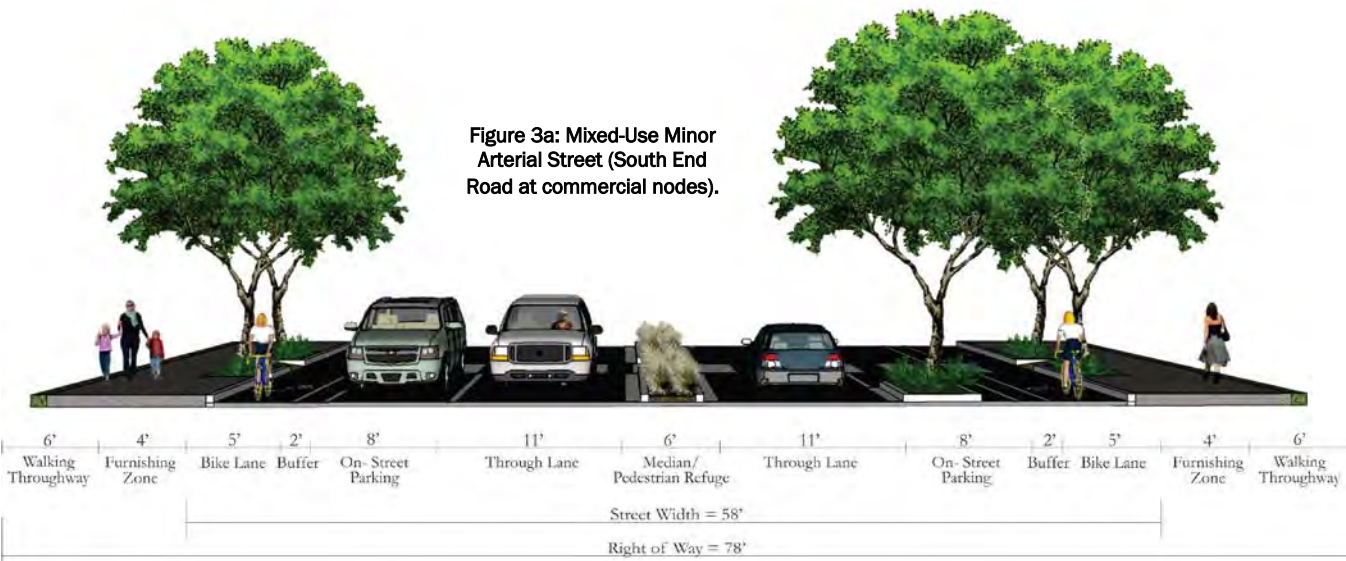


Design Types of Streets

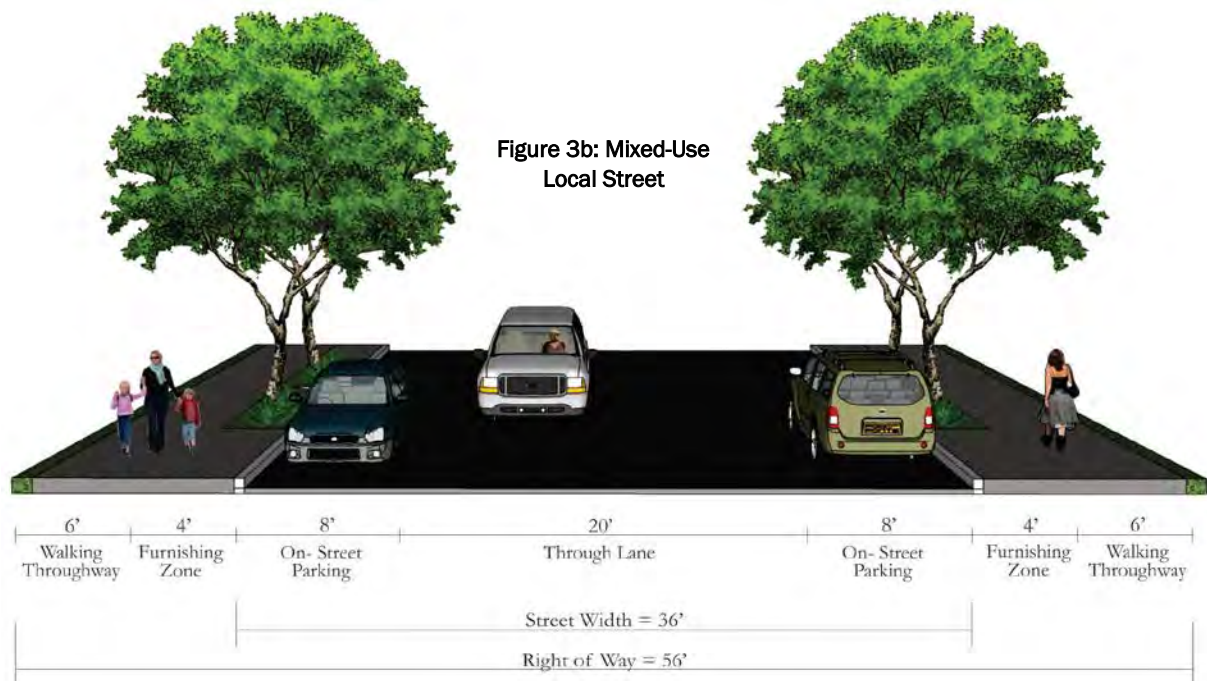
Design of the streets in Oregon City requires attention to many elements of the public right-of-way and considers how the street interacts with the adjoining properties. The design of streets varies based on the functional classification and street type. Overall, there are 10 different design types for streets in the South End Concept Plan area ranging from Mixed-Use Minor Arterial to Shared Local Street, as shown in Figures 3a to 3j. The applicable design type for each street section can be seen in Figure 4.

Figure 2: Multi-Modal Street System

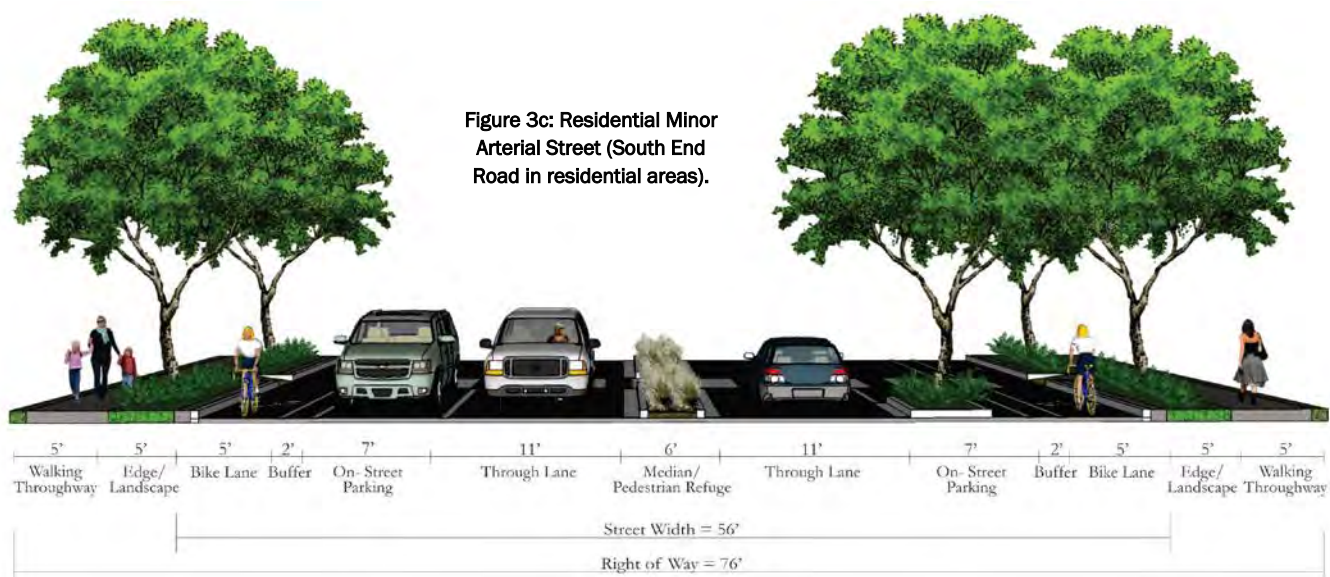




- *On-street parking may be on both, one, or neither side of the street depending on adjacent land use.
- **Landscaping may be added to the parking lane if ten feet of clearance is maintained from the curb to the planting wells.
- ***A six foot median should be provided at mid-block locations. An 11-foot left-turn lane should be provided where left-turns are allowed.



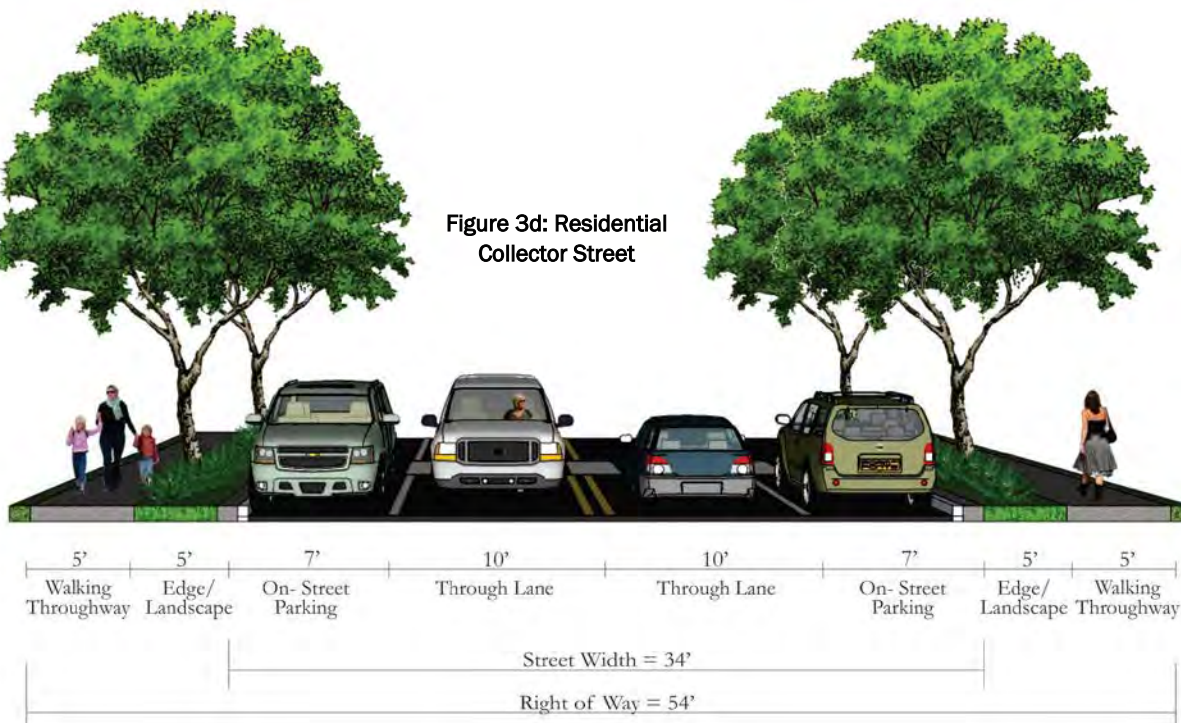
- *On-street parking may be on both, one, or neither side of the street depending on adjacent land use.



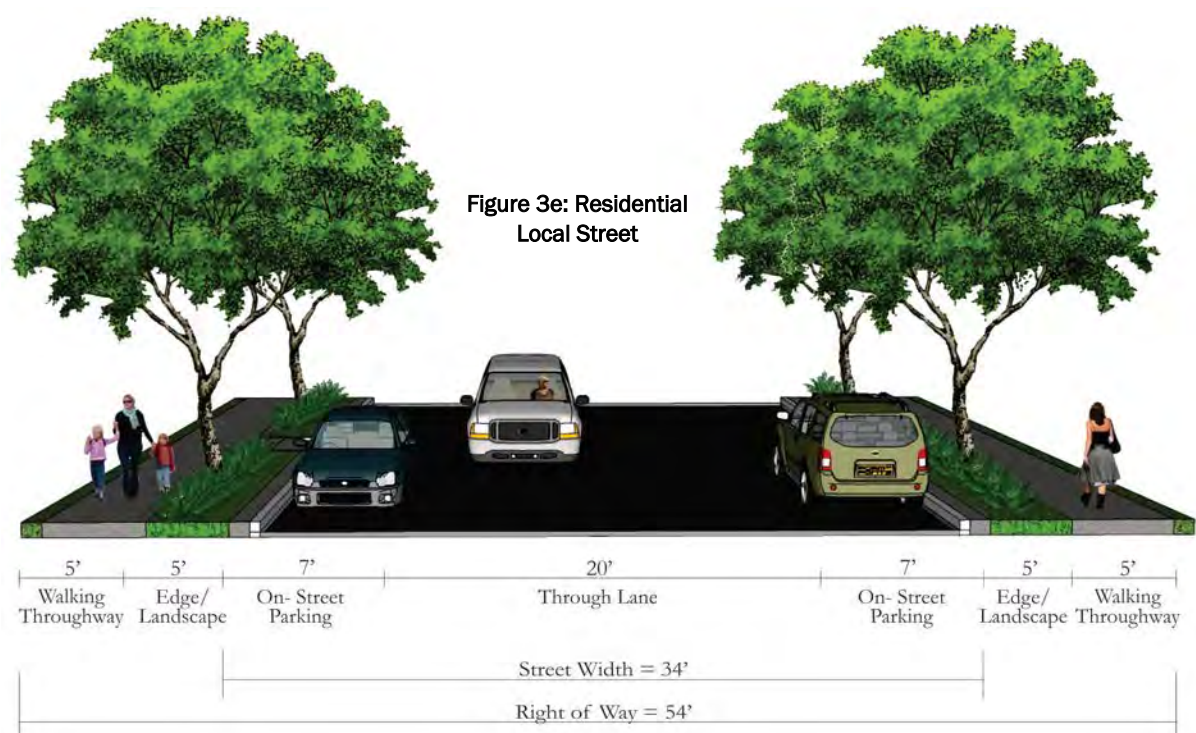
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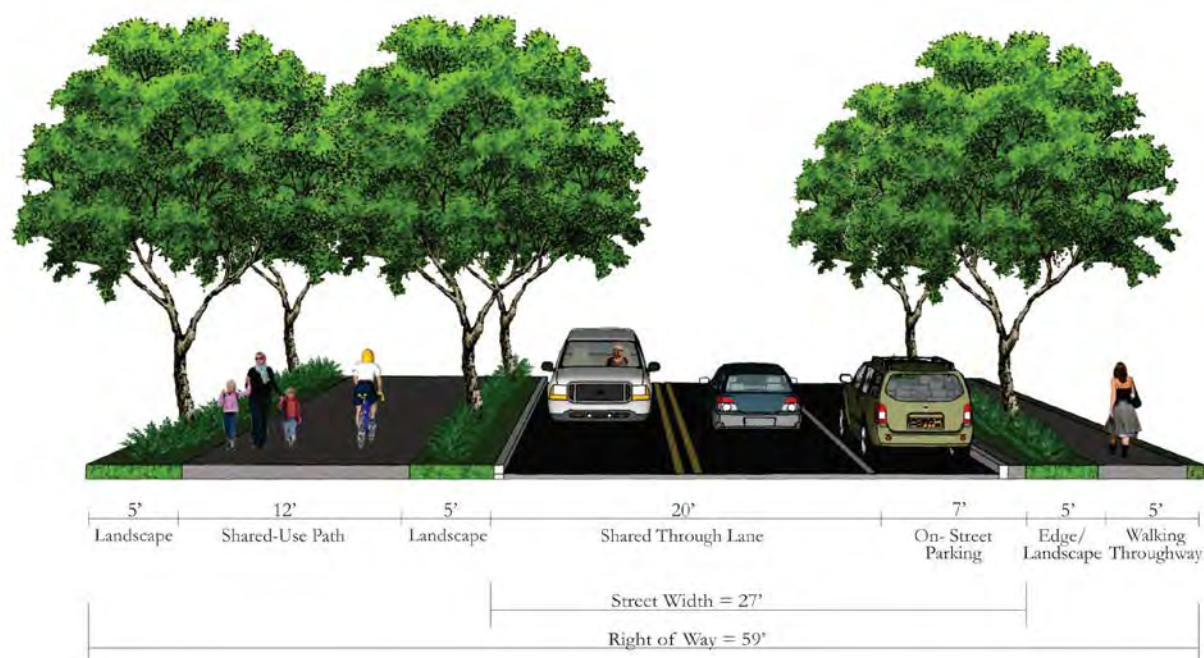


*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.



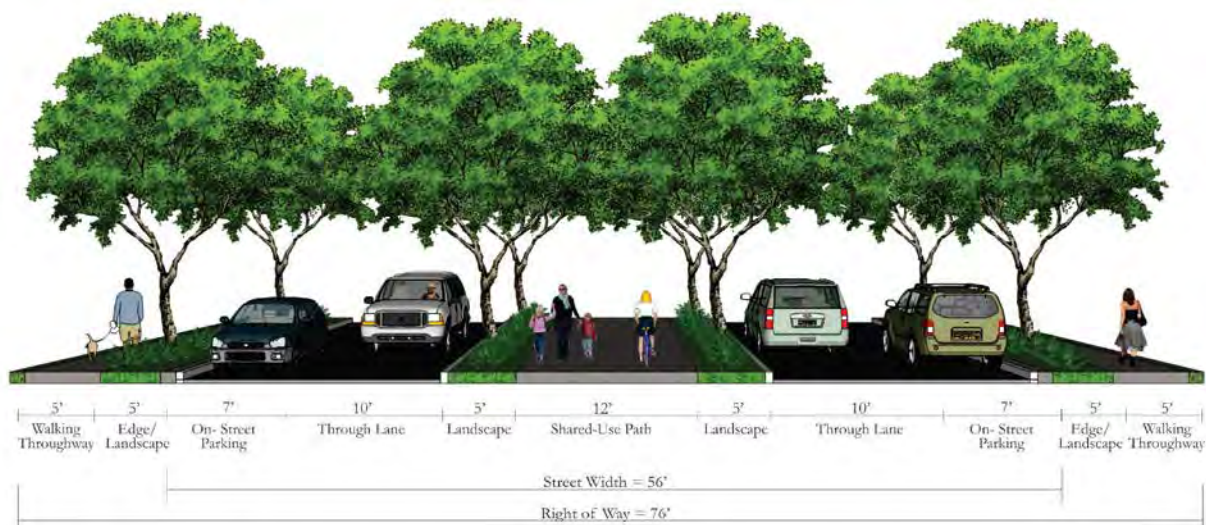
*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.
**Curbs may be excluded at the discretion of the city to match the rural character of the surrounding land use.

Figure 3f: Family Friendly Collector Street with roadside Shared-Use Path



*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.

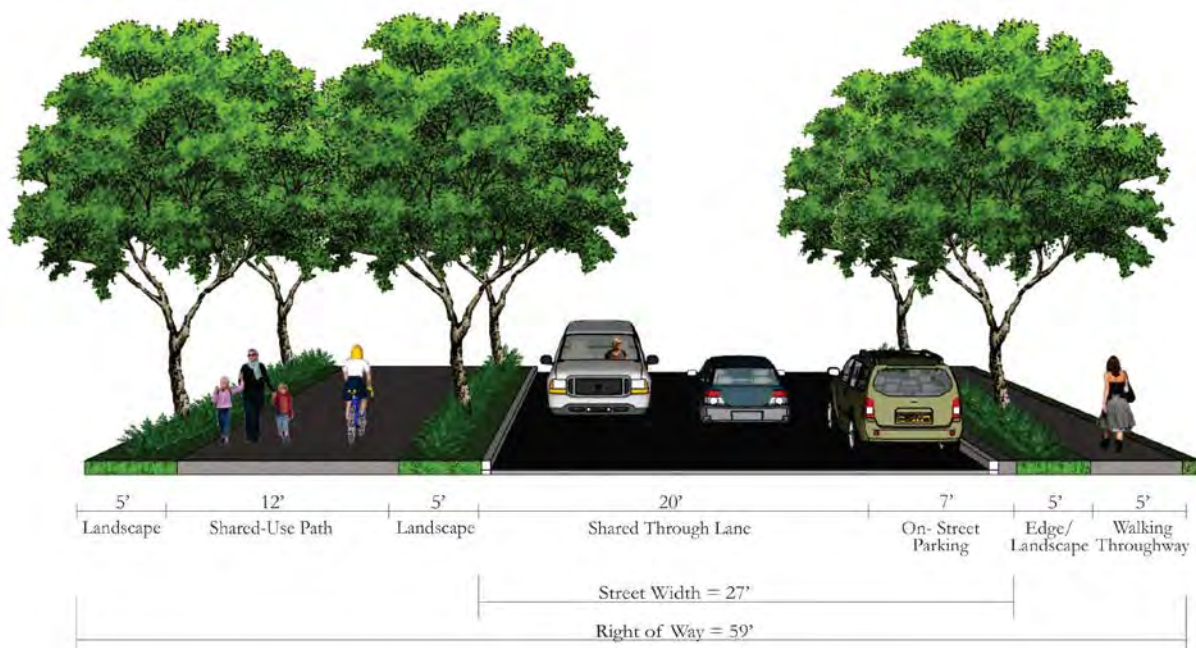
Figure 3g: Family Friendly Local Street with center island Shared-Use Path



*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.

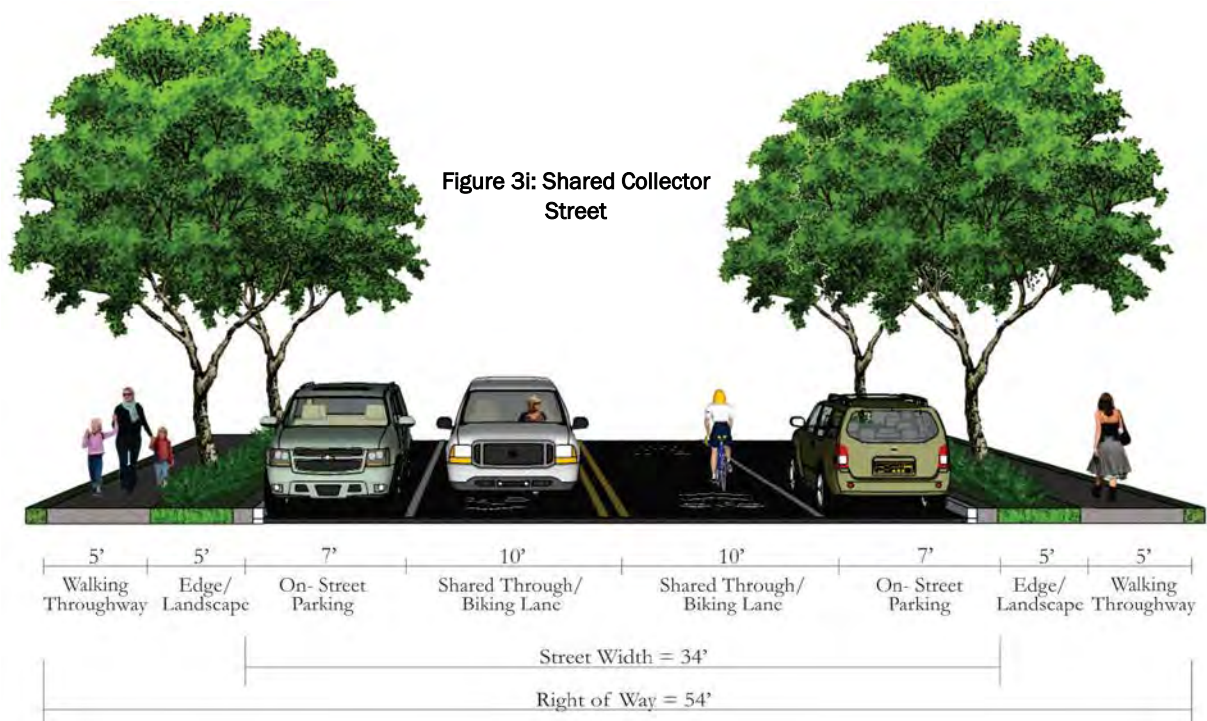
**Curbs may be excluded at the discretion of the city to match the rural character of the surrounding land use.

Figure 3h: Family Friendly Local Street with roadside Shared-Use Path

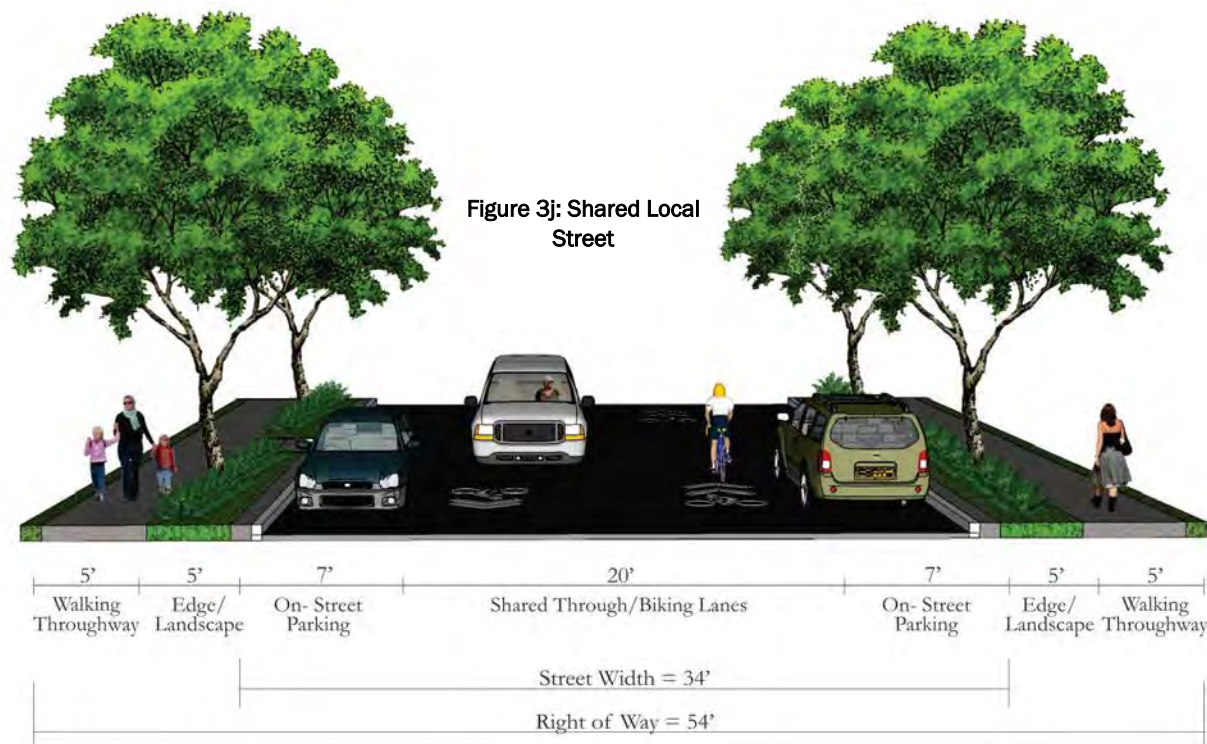


*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.

**Curbs may be excluded at the discretion of the city to match the rural character of the surrounding land use.

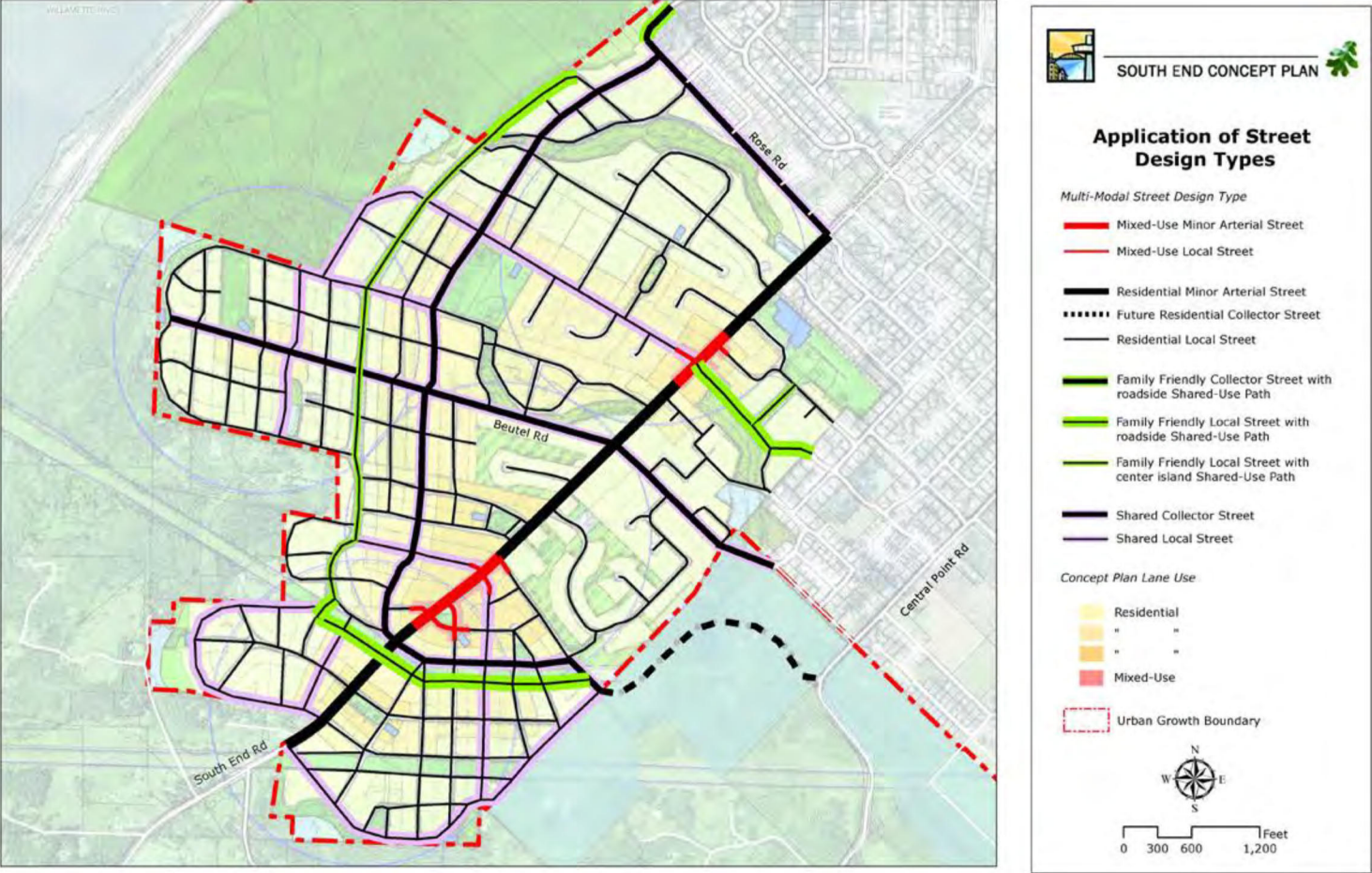


*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.



*On-street parking may be on both, one, or neither side of the street depending on adjacent land use.

Figure 4: Application of Street Design Types



Design Elements for Streets

To better represent and strengthen the rural character of the South End Concept Plan area, and to further enhance planned driving, walking and biking infrastructure, the following design elements should be implemented as appropriate:

- **Permeable Pavement:** Permeable pavements are paved surfaces that infiltrate, treat, and/or store rainwater where it falls. Permeable pavements may be constructed from pervious concrete, porous asphalt, permeable interlocking pavers, and several other materials.
- **Bioswales:** Bioswales are vegetated, mulched, or xeriscaped channels that provide treatment and retention as they move stormwater from one place to another. Vegetated swales slow, infiltrate, and filter stormwater flows. As linear features, vegetated swales are particularly suitable along streets and parking lots.
- **Stormwater Planter Boxes:** Planter boxes are urban rain gardens with vertical walls and open or closed bottoms that collect and absorb runoff from sidewalks, parking lots, and streets. Planter boxes are ideal for space-limited sites in dense urban areas and as a streetscaping element.
- **Green Parking:** Many of the green infrastructure elements described above can be seamlessly integrated into parking lot designs. Permeable pavements can be installed in sections of a lot and rain gardens and bioswales can be included in medians and along a parking lot perimeter. Benefits include urban heat island mitigation and a more walkable built environment.
- **Traffic Calming:** Traffic calming refers to street design techniques used to re-create safe, slow residential and mixed-use streets without significantly changing vehicle capacity and to mitigate the impacts of traffic on neighborhoods and business districts where a greater balance between safety and mobility is needed. Traffic calming seeks to influence driver behavior through physical and psychological means, resulting in lower vehicle speeds or through traffic volumes. Physical traffic calming techniques include:
 - Narrowing the street by providing curb extensions or bulbouts, or mid-block pedestrian refuge islands
 - Deflecting the vehicle path vertically by installing speed humps, speed tables, or raised intersections
 - Deflecting the vehicle path horizontally with chicanes, roundabouts, and mini-roundabouts
 - Narrowing travel lanes and providing visual cues such as placing buildings, street trees, on-



An example of permeable pavers



An example of a planter box adjacent to the sidewalk

street parking, and landscaping next to the street also create a sense of enclosure that prompts drivers to reduce vehicle speeds.

Transit

While transit service is not provided in the study area, it is provided in Oregon City by TriMet via seven fixed bus routes connecting Oregon City to the rest of the Portland Metropolitan area, and an Americans with Disabilities Act (ADA) paratransit service. In addition, seasonal transit service is provided to residents and tourists via the Oregon City Trolley, and regional service is provided via the Canby Area Transit system, South Clackamas Transportation District and Amtrak.

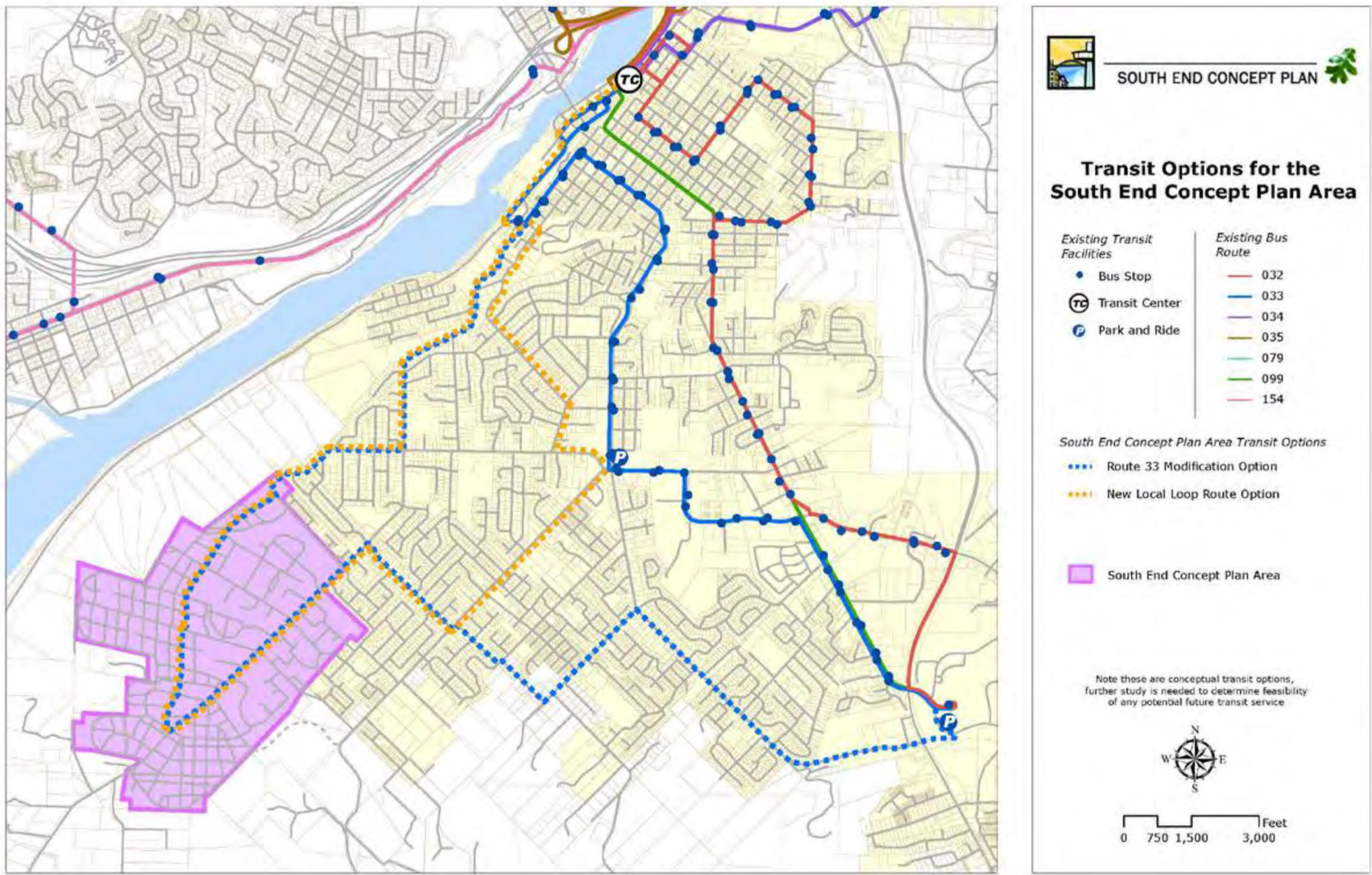
Transit users in the South End Concept Plan area are nearly two miles from the closest bus stop at the Warner Parrott Road-Warner Milne Road/Linn Avenue-Leland Road intersection (greater than the typical trip length for the average walking or biking trip). Park and ride facilities are provided for transit users at two locations in Oregon City, near the Linn Avenue/Williams Avenue intersection (just north of Warner Milne Road) and at Clackamas Community College.

The Concept Plan sets the stage for future transit, recognizing that the type and extent of service improvements will play out over time. Specifics of transit service will depend on the actual rate and type of development built, Tri-Met resources and policies, and, consideration of local options. The land use designations in the South End Concept Plan area make transit a viable option in the future. The City should work with Tri-Met and developers within the Concept Plan area to facilitate transit.

Two conceptual options have been identified (shown in Figure 5):

- A route modification to the existing bus service between the Oregon City Transit Center and Clackamas Community College (Route 33) that would extend the route from Clackamas Community College west down Meyers Road, then south down Leland Road, and west down McCord Road and Partlow Road to South End Road. At South End Road, the route would travel south to serve the South End Concept Plan area, before heading north again returning to the Oregon City Transit Center via the Deer Lane extension, Madrona Drive, Lawton Road and South End Road.
- New local loop route that connects to the Oregon City Transit Center and serves the South End Concept Plan area, and the residential areas along South End Road, Partlow Road, Central Point Road, Warner Parrott Road, Canemah Road, Telford Road, and Center Street not currently served by transit.
- A third option would be to work with another transit provider, such as Canby Area Transit. Canby Area Transit's Orange Line (99E) currently travels from the Canby Transit Center to the Oregon City Transit Center.

Figure 5: Transit Options for the South End Concept Plan Area



Walking and Biking

Residents of South End will be able to safely and efficiently travel between destinations via any number of active transportation modes, such as walking, biking, or skating. A system of Family Friendly Routes, on-street sidewalks and bikeways, and shared use paths will provide quality access to key destinations—improving the overall health and livability of the neighborhood.

Context Sensitive Walking and Biking Facilities

The proximity to the Canemah Bluffs Natural Area and the potential for the development of many smaller neighborhood and larger community parks, is a significant asset for the future of South End. To better serve the access needs of existing and future residents to these scenic natural and recreational areas, a high quality network of low-stress pedestrian and bicycle facilities is envisioned. Many proposed streets in the South End area will include large vegetated medians and/or buffers to help maintain a natural, rural feel to the street. In addition to serving a traffic calming function, these streets will also provide informal areas for social activity, recreation, and play. For pedestrians, this means that sidepaths or sidewalks will be provided on all proposed streets—completely separate from the motor vehicle travelway. For bicyclists, dedicated facilities will vary based on roadway classification. Local streets will include shared lane markings to demonstrate where bicyclists should operate on the roadway—outside the parking lane door zone—and alert motorists to expect bicyclists on the roadway. Arterial and Collector streets will have physically separated facilities, such as bike lanes or cycle tracks, or will have accommodations on adjacent routes. Wayfinding signage will also be developed to highlight key destinations, such as parks and community centers, and the best routes for pedestrians and bicyclists. These signs will improve destination and route finding for residents and visitors alike, encouraging exploration and activity.

Both the trail and on-street pedestrian and bicycle network are context sensitive, addressing the rural character of the South End neighborhood, while also meeting the expressed community desire to have increased opportunities for walking and biking. Moreover, these networks will be fully integrated with the existing trail and bikeway network and the planned active transportation projects in the Oregon City TSP. These measures help ensure that existing and future residents of South End can access goods and services, without the need for an automobile, within and outside of the South End area.

Trails

Figure 6 illustrates the potential active transportation network for the South End neighborhood. The emphasis of this network is on connecting residents to existing and future trails, as defined in the most recent Oregon City Transportation System Plan, as well as key destinations within and near to South End. Trail access to important viewsheds in the South End area will also be taken advantage of. For example, the BPA Power utility corridor, located at the southern edge of the plan area offers unobstructed views of rural farms and the Canemah Bluff. The types of trails that are provided will vary by context—anything from pervious paver walking paths to concrete shared use paths for pedestrians and bicyclists. On many streets, there is also the potential to designate a path through the wide landscaped median. User comfort on these trails will be maximized due to the physical distance and separation from motor vehicle traffic.

On-Street Facilities

For pedestrians, sidewalks are the predominant facility type, and these will be installed on both sides of the roadways with a Collector or Arterial classification (as shown in Figure 6). Local streets will be more flexible in their approach and could include pervious pavers or other surface types as a sidepath or sidewalk. The sidepaths will maintain physical separation, via a split rail fence and/or landscaped buffer, from motor vehicle traffic, but will help to retain the rural character of South End.

On Collector and Arterial streets—streets where traffic speeds and volumes are higher, bicyclists will be provided with physically separated facilities, such as a bike lane or cycle track. However, the majority of streets in the South End neighborhood will be Local streets, with lower traffic speeds and volumes. Some of these streets will accommodate pedestrians and bicyclists through their designation as Family Friendly Routes, as defined in the Oregon City TSP and summarized earlier in this document.

South End Road Cycle Track

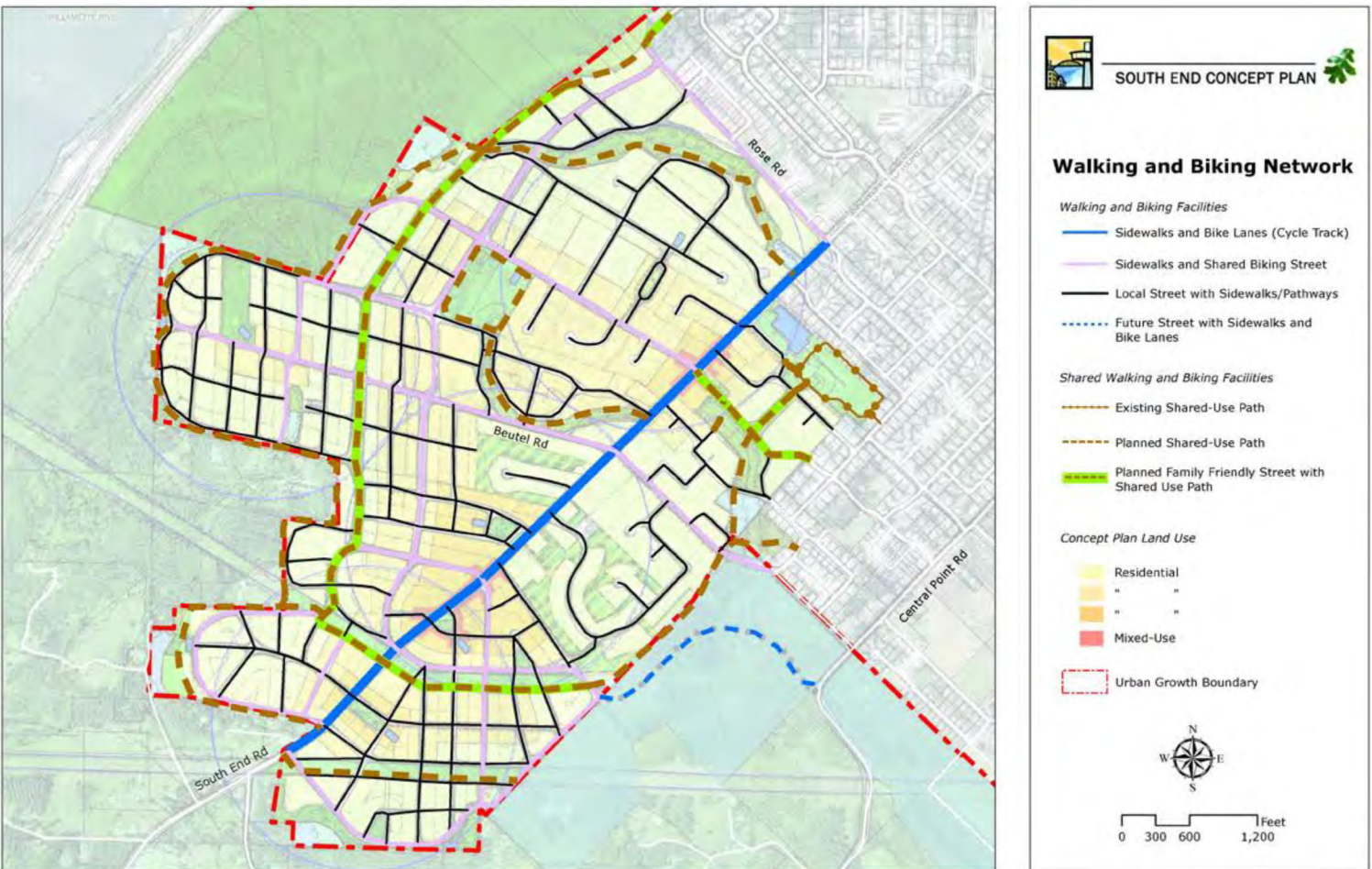
A one-way cycle track is planned along South End Road through the Concept Plan area. The cycle track will be an exclusive on-street bike facility that is physically separated from motor vehicle traffic with a parking lane and/or a buffer. Where on-street parking is allowed, the cycle track will be located to the curb-side of the parking (in contrast to bike lanes).

To improve visibility of the bicyclists, the cycle track should drop to a buffered bike lane and on-street parking should be prohibited 30 feet in advance of the cycle track termination when approaching intersections. The cycle track may either remain curb-tight or bend-in towards the roadway with curb-extensions to improve visibility of the bicyclists at the intersections.



Example of a cycle track bending in towards the roadway and parking restrictions when approaching an intersection

Figure 6: Walking and Biking Network





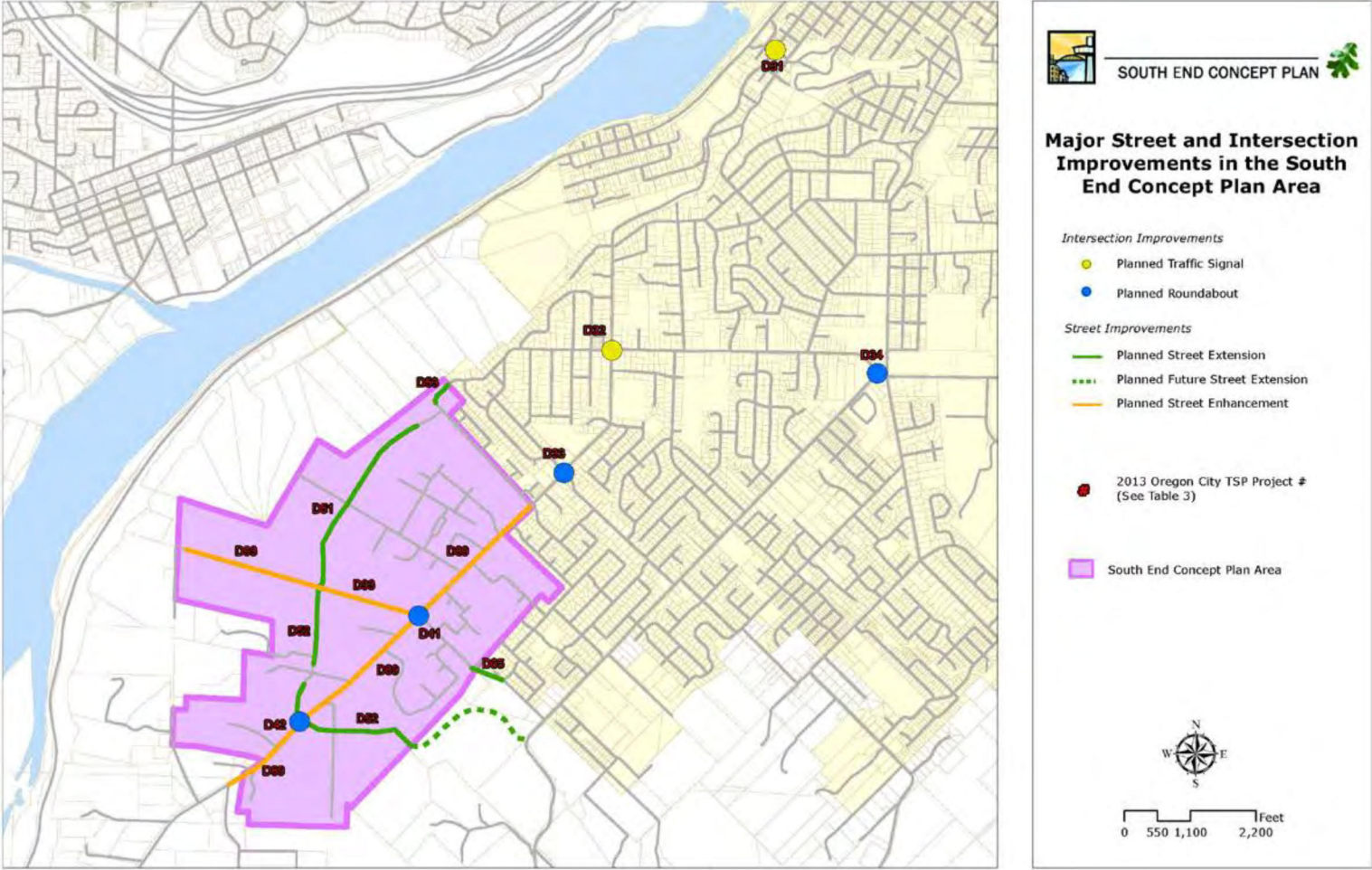
Updates to the 2013 Oregon City TSP

As shown in Table 4, most of the major street system improvements planned for the South End Concept Plan area were previously incorporated into the 2013 Oregon City TSP. Only the design types for the Madrona Drive extension and South End Road enhancement projects were slightly modified, increasing the project cost for intersections and the major street system in the South End Concept Plan area by about \$330,000.

Table 4: Major Street and Intersection Improvements in the South End Concept Plan Area

Project	Estimated Cost	Project Source
Install a traffic signal at the South End Road/ South 2 nd Street intersection	\$315,000	2013 Oregon City TSP Project D31
Install a traffic signal at the South End Road/ Warner Parrott Road intersection with dedicated left turn lanes for the South End Road approaches to Warner Parrott Road	\$345,000	2013 Oregon City TSP Project D32
Install a roundabout at the South End Road/ Lafayette Avenue-Partlow Road intersection	\$475,000	2013 Oregon City TSP Project D33
Install a roundabout at the South End Road/ Beutel Road-Parrish Road intersection	\$500,000	2013 Oregon City TSP Project D41
Install a roundabout at the South End Road/ Deer Lane extension intersection	\$505,000	2013 Oregon City TSP Project D42
Extend Deer Lane from Rose Road to Buetel Road as a Residential Collector	\$3,500,000	2013 Oregon City TSP Project D51
Extend Deer Lane east from Buetel Road to Central Point Road as a Residential Collector	\$7,335,000	2013 Oregon City TSP Project D52
Extend Madrona Drive to Deer Lane as a Family Friendly Collector	<i>\$565,000 (+\$90,000 from the TSP)</i>	Modified version of 2013 Oregon City TSP Project D53 (Change from Residential Collector to Family Friendly Collector)
Complete the gap between Parrish Road as a Residential Collector	\$1,870,000	2013 Oregon City TSP Project D65
Improve South End Road from Partlow Road to south of South End Court to a Residential Minor Arterial	<i>\$3,870,000 (+\$240,000 from the TSP)</i>	Modified version of 2013 Oregon City TSP Project D89 (Street type changes for two segments from Residential to Mixed-Use)
Improve South End Road from south of South End Court to north of Fandango Drive to a Mixed-Use Minor Arterial		
Improve South End Road from north of Fandango Drive to north of Navajo Way as a Residential Minor Arterial		
Improve South End Road from north of Navajo Way to north of the Deer Lane extension as a Mixed-Use Minor Arterial		
Improve South End Road from north of the Deer Lane extension south to the UGB as a Residential Minor Arterial	<i>\$3,870,000 (+\$240,000 from the TSP)</i>	Modified version of 2013 Oregon City TSP Project D89 (Street type changes for two segments from Residential to Mixed-Use)
Improve Beutel Road north of South End Road as a Residential Collector		
	\$955,000	2013 Oregon City TSP Project D93
Total	\$20,235,000	

Figure 7: South End Concept Plan area Improvements



Appendix D

Public Infrastructure Element

Water

The existing Oregon City water system is expanded to serve the entire South End Concept Plan area. Based on the 2002 UGB, stated and delineated within the *2012 City of Oregon City Water Distribution System Master Plan*, all existing and proposed water mains, lines and services are incorporated under the ownership of Oregon City. Ownership of the Clackamas River Water (CRW) system will eventually be incorporated into the City of Oregon City's water distribution system. CRW facilities may not be designed to handle urban levels of development and will need to be improved, expanded or replaced to continue to provide water service to corresponding customer areas. Further analysis of the existing CRW water system is recommended to determine need for replacement. The *Master Plan* forecasted sufficient water supply to accommodate build out in the South End Zone. However, the South End Concept Plan proposes development beyond what is shown in the Master Plan. Maximum Daily Demand (MDD), available pressure and available fire flow should be re-evaluated to account for the zoning densities shown on the current concept plan. As the annexation process occurs, the City will notify and work with CRW and its customers to assure transfer to the city water system transpires in a methodical way and rate payers are aware and informed of the process.

Distribution Improvements

The proposed water main system improvements are shown in Figure 1. Water main improvements consist of new water mains ranging from 8-inches to 12-inches, unless stated otherwise. Several connections are made to both the existing City of Oregon City water main and CRW main, located along South End Road. The most significant extension is the connection to the existing 12-inch main, located northwest of South End Road at the intersection of South Rose Road and South Deer Lane. A new 12-inch main runs southwest along the extents of the concept plan boundary. The 12-inch main connects back to South End Road within a street located southwest of the intersection of South Impala Lane and South End Road. Numerous 8-inch mains are constructed within the proposed street layout. The grid network created by this new system layout provides a looped distribution system, reducing the chances of pressure issues. All pipe size estimates are preliminary and should be revised with detailed flow modeling. The pipe sizes assume that the flow velocities are kept at or below 10 feet per second. As development occurs it is recommended site specific studies are performed to test and confirm available fire flows and minimum pressures can be achieved, as outlined in the *2012 Water Master Plan, table 4-1 City of Oregon City Planning and Design Criteria*.

Stormwater

The City Engineering Division is creating a new series of Low Impact Design (LID) standards. Therefore, a low impact stormwater approach is recommended for the planning area. Providing LID standards to the planning area limits the impact to existing and aging storm systems and reduces the infrastructure required to service the area. LID approaches mimic the natural hydrology of the catchment area. The approach manages stormwater within each basin, separating the basin into several smaller sub-basins. The stormwater within each basin can be managed utilizing the following categories: individual sites, streets and regional facilities. Figure 2 shows where each of these approaches could be used in the South End Concept Plan. Site specific LID designs need to take into account the topography

and soil conditions of the site. Specific site study analyze should be required to ensure appropriate LID design is implemented.

Individual sites include all residential areas (single family and multi-family), commercial and open spaces. Stormwater runoff is minimized by using less impervious surfaces wherever possible and integrating stormwater management facilities within the properties. Impervious areas are minimized by utilizing porous pavements (i.e. pervious concrete, and eco-roofs). Stormwater management facilities are incorporated into the landscape. For instance, a vegetated bio-swale can be used in a parking lot in a landscape isle, while a small rain garden can be incorporated into a residential yard.

Runoff from roads and streets is managed utilizing 'green streets', where possible. Green streets utilize landscape street-side planters or swales that capture and detain or infiltrate stormwater runoff. The soil and vegetation within the planter or swale filter pollution. They are designed to accommodate the traffic needs while providing a fully functional stormwater management system and landscaping. If the native soil does not allow for infiltration of the stormwater, a sub-surface detention system can decrease the size of a downstream stormwater facility. Green streets are also used to convey runoff rather than utilizing an underground conveyance system.

When soils or grading constrain the use of individual site management and green streets, a regional approach to stormwater management should be explored. Regional facilities should be located in low points within open spaces to manage large flows for both treatment and detention before releasing to a creek or river. Regional facilities are usually operated and maintained by the City. Potential locations of regional stormwater ponds have been shown in Figure 3, these areas have are noted conceptually in the low spots of the basin but can be relocated once site specific information is obtained. If a regional facility is proposed it is recommended that further studies be performed to confirm ultimate location, designs, size, soil conditions, and over all site conditions and constraints. In addition downstream analysis should be performed to analyze and mitigate the impacts downstream of the regional system. An alternate location for regional stormwater facilities would be within the Powerline easments, further studies and discussion with the Power Company are required.

Stormwater Conveyance

Two methods for stormwater conveyance both utilize gravity flow to either a creek or river or a regional stormwater facility. The first is surface conveyance consisting of street-side planter or swales and ditches. Surface conveyance contains ditch inlets and culverts. Some manholes may be required to link the systems together. Whenever possible, this should be the first approach to stormwater conveyance. A certain amount of treatment and retention occurs when stormwater is conveyed through a system that is vegetated.

The second is an underground system that includes many more catch basins and manholes than a surface conveyance system. Underground systems can be more expensive to construct since they are conventionally three feet or more below ground. On busier streets such as South End Road, an underground conveyance system is likely more practical.

Sanitary Sewer

The three drainage basins in the study area require pump stations and gravity sewer lines. Each pump station pumps discharge a short distance to gravity lines from each basin, and convey discharge to the intersection of South End Road and Beutel Road. A new pump station and force main will pump the effluence to the South End Road Interceptor, located at the intersection of South End Road and Glacier Court. An alternate discharge location was analyzed to pump the entire area to the Parrish pump station. This option would require the Parrish Pump Station to be upsized along with the associated pressure mains. This option was not preferred by the City.

Collection Improvements

Proposed sanitary sewer system improvements are shown in Figure 4. Due to the existing municipal system and topography of the future serviced area, the conveyance options for the discharge of basins E6, E7 and X1, as outlined in the Sewer Master Plan are quite limited. Basin E6 is illustrated to be pumped through a 4-inch forcemain, north to Beutel Road, where it will discharge to a proposed 12-inch gravity line, then will flow SE to the proposed pump station at the intersection of South End Road and South Parrish Road. Discharge from Basin E7 is illustrated to be pumped utilizing two pump stations located west of South Kelland Court and approximately 1300 feet south of the intersection of South End Road and South Kelland Court. Both pumps within basin E7 will utilize 4-inch forcemains, and discharge to a proposed 12-inch gravity line, located within South End Road, where the 2002 UGB intersects. The proposed 12-inch gravity line will flow northeast along South End Road to the proposed pump station at the intersection of South End Road and South Parrish Road. Future developments within Basin X1 could be routed to the proposed pump station at the intersection of South End Road and South Parrish Road, utilizing the proposed 12-inch gravity lines within Beutel Road and South End Road. The proposed pump station at the intersection of South End Road and South Parrish Road will pump the discharge from basins E6, E7 and X1 through a proposed 10-inch forcemain within South End Road, northeast to the existing 18-inch gravity line at the intersection of South End Road and South Glacier Court.

Routing basins E6, E7 and X1 to the existing Parrish Road Pump Station would require upsizing the existing 12-inch gravity line within South Parrish Road, and constructing a parallel force main along the existing 10-inch force main. The existing Parrish Road Pump Station has a capacity of 1.11 MGD. The future peak five-year inflow to Parrish Road pump station = 0.93 MGD. This leaves a spare capacity of 0.16 MGD. This is the equivalent of serving an additional 375 people. Anything additional would require upsizing the pump station or routing discharge directly to the South End Road Interceptor as previously stated. The buildout peak flow for basin E6, E7 and X1 are approximately 290 gpm, 611 gpm and 1010 gpm, respectively. Basin E7 will be serviced by 2 pump stations, due to the topography of the basin. The pump station to the north of South End Road, as described above, will have a peak flow of 264 gpm, and the pump station to the south of South End Road will have a peak flow of 347 gpm. The proposed pump station at the intersection of South End Road and South Parrish Road will accommodate the peak flow of all 3 basins. The total buildout peak flow will be 1,911 gpm. The pump station at this intersection will require a capacity of approximately 3.0 MGD.

Sizing of the proposed pump stations was based on the buildout peak flow for the average density for the UGB expansion area. The average between the high and low estimate is 2,106 homes, equaling 6.4 units per net acre. An average of 2.3 people per all residential zoning, and 80 gpcd was assumed. These assumptions are consistent with the Sewer Master Plan. The calculated buildout peak flow also assumes I/I values at 1000 gpd/net acre. The I/I value for the Sewer Master Plan is 3000 gpcd, and is likely conservative based on lacking data for the study area. Further flow monitoring is recommended to verify previous I/I assumptions for basins E6, E7 and X1.

The above are preliminary recommendations and it is recommended that the Sewer Master Plan be updated to analyze the South End Concept Plan Area. Locations of proposed pump stations and sewer lines are preliminary and can be relocated based on further studies and site specific information.

Figure 1. Water System Improvements

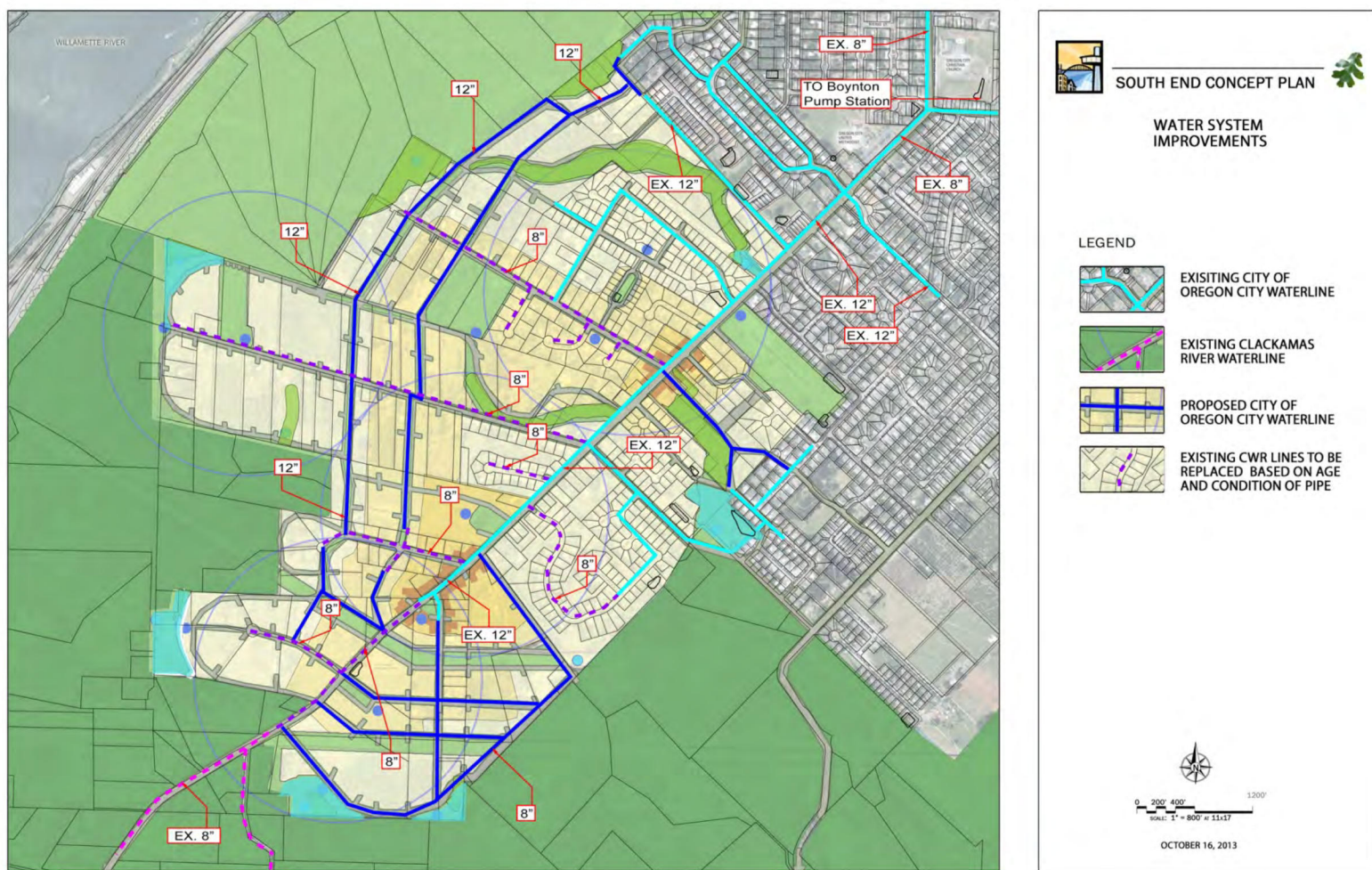


Figure 2. Stormwater System Improvements

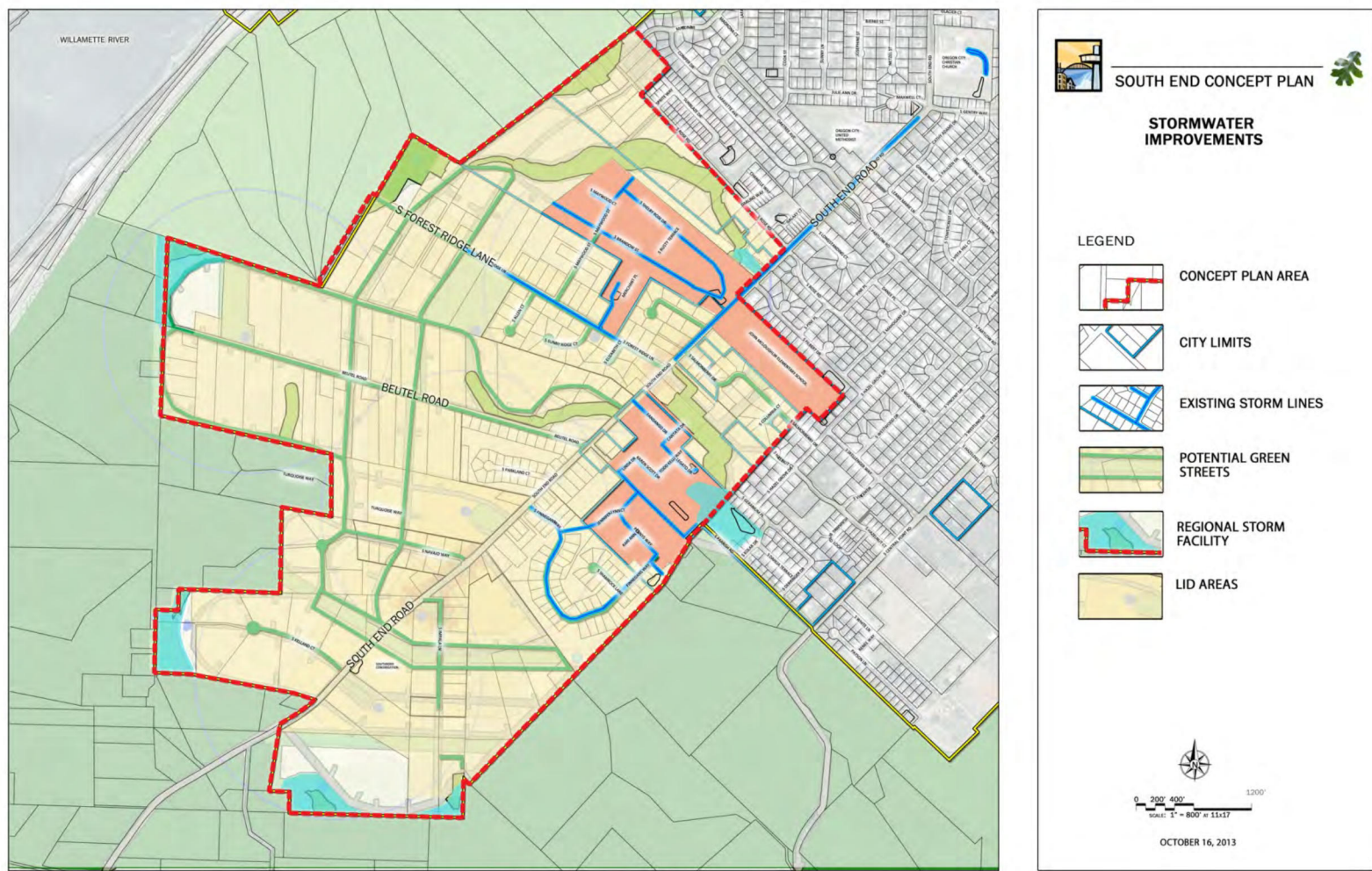


Figure 3. Regional Stormwater Facility Siting

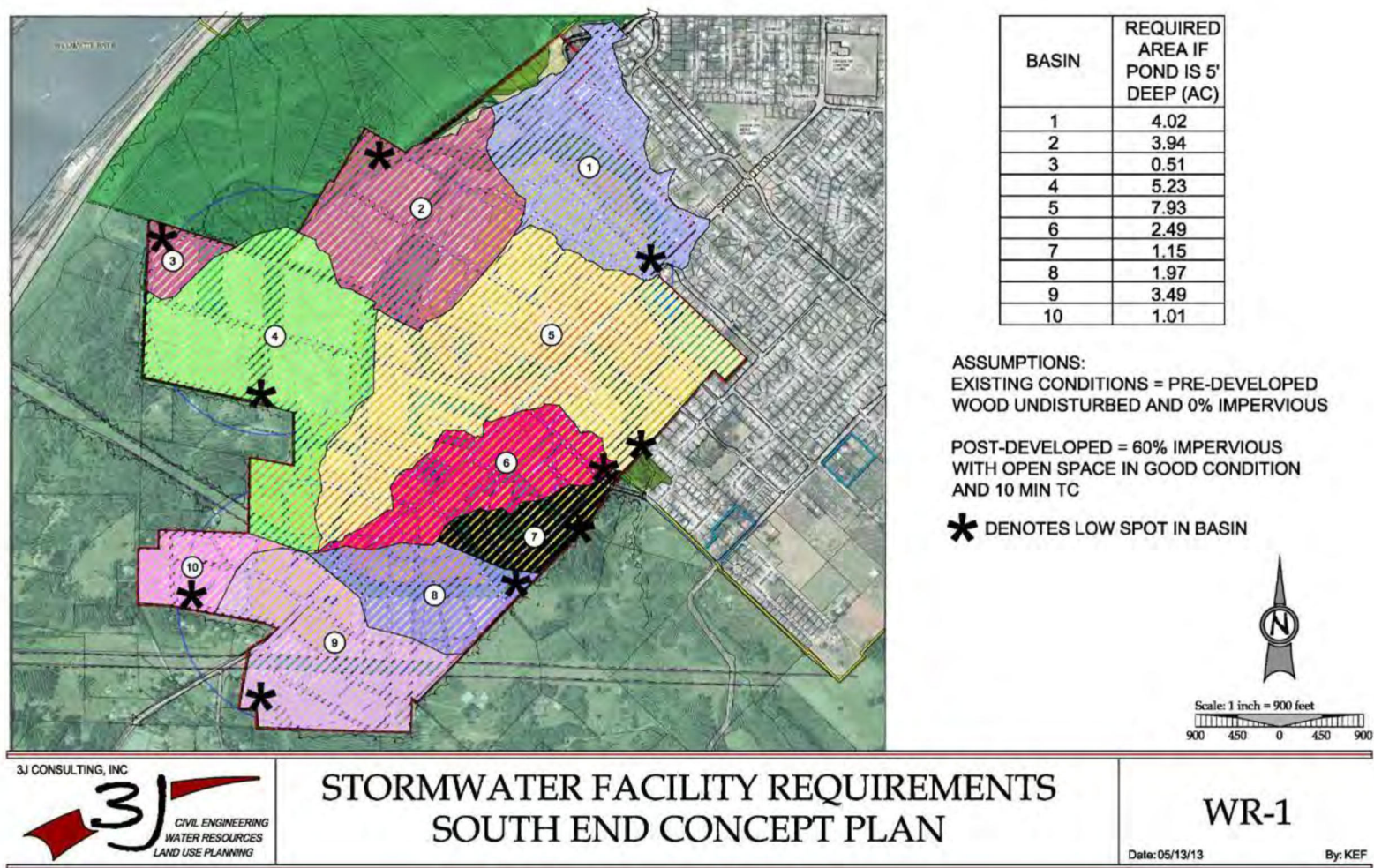
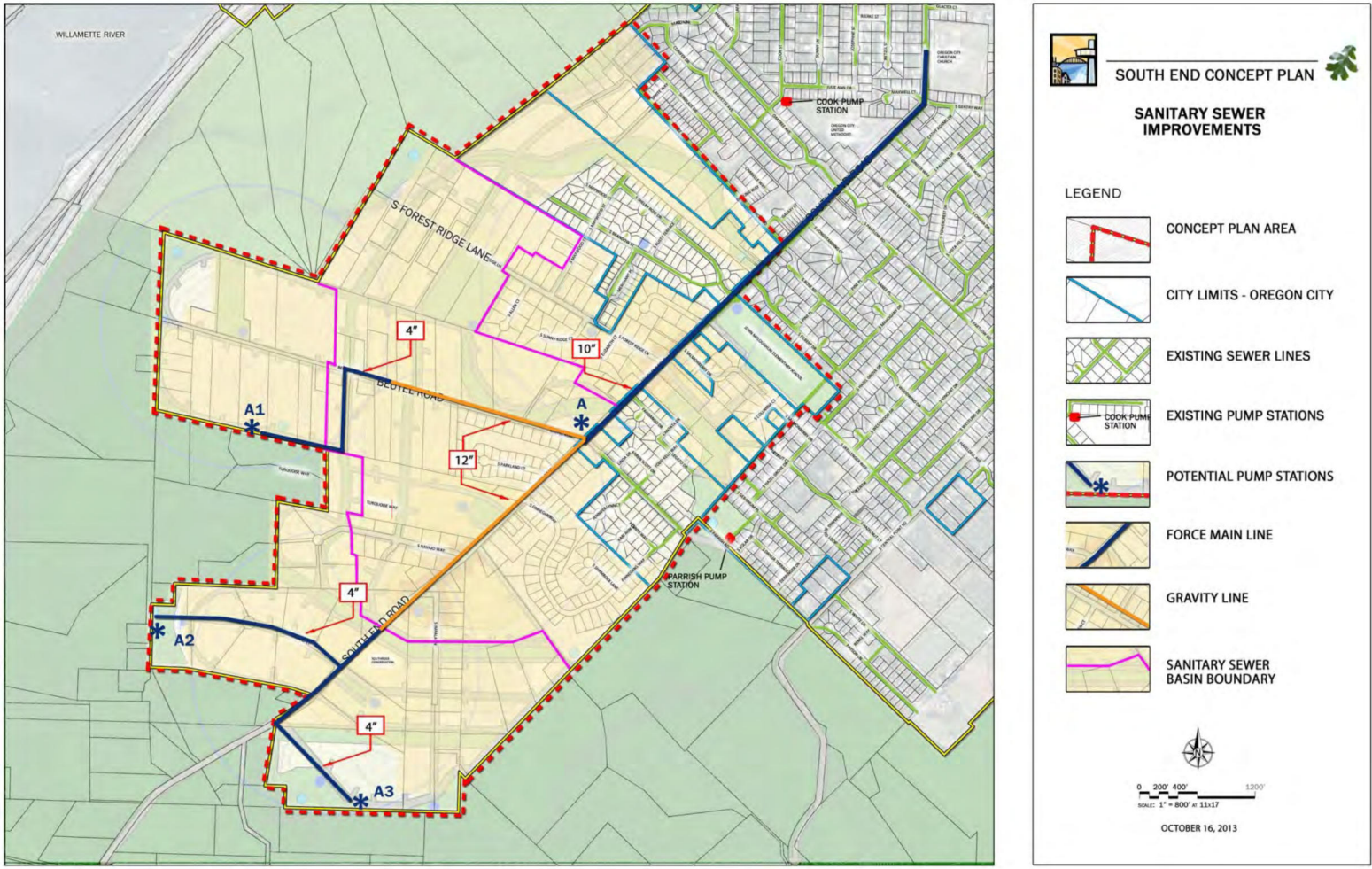


Figure 4. Sewer System Improvements



Memorandum

Date: August 20, 2013
To: Oregon City South End Concept Plan Project Management Team
From: Cathy Corliss
Re: Tasks 6.2: Development of Zoning Code Amendments – PMT REVIEW DRAFT

Introduction

As described in Task 6.2 of the Scope of Work, this memorandum provides a preliminary assessment of the existing code and recommended changes to implement the August 13, 2013 Draft Concept Plan, including sample code language for specific amendments as needed. The Key Elements below are from the Draft Concept Plan (pages 21 and 23). They are reiterated here to provide context for each topic of the code analysis. The titles of the municipal code evaluated below include: Title 10 (Chapter 10.32: Traffic Sight Obstructions), Title 12 (Streets, Sidewalks and Public Places) Title 13 (Public Services), Title 16 (Subdivisions) and Title 17 (Zoning)¹.

Natural Features

Key Elements of the Draft Concept Plan

- Preservation of contiguous natural spaces and wildlife corridors.
- Preservation of most wetland areas with several road connections across streams/wetlands at narrow points.
- Improved access to natural areas and views.

Code Analysis

The Natural Resource Overlay District (NROD) designation (Chapter 17.49) provides a framework for protection of Metro Titles 3 and 13 lands, and Statewide Planning Goal 5 resources within Oregon City. The Draft Concept Plan notes that there are two potentially jurisdictional wetlands and seven other waters of the State/United States within the Plan area. Preservation of the wetlands and other water features can be accomplished through this the application of this overlay. The NROD provisions apply only to properties within the NROD as shown on the NROD Map. Therefore, Section 17.49.020 should be amended to reference the South End Concept Plan and the NROD Map should be amended to include inventoried resources.

The Draft Concept Plan notes that there are no natural areas in South End as defined under Oregon Statewide Land Use Planning Goal 5; therefore, application of the NROD would not

¹ The version of the Municipal Code available on the City's website in August 2013 was used in this analysis.

provide for “preservation of contiguous natural spaces and wildlife corridors” unless they are otherwise associated with a water feature, wetland or its vegetated corridor. Figure 12 identifies two non-wetland open spaces areas (OS1 and OS2). If these extensions of Canemah Bluff are not otherwise unbuildable due to topography or public ownership, some measure of regulatory protection will be needed in order to ensure their preservation. Section 16.08.025.C requires that preliminary subdivision plat identify “All wildlife habitat or other natural features listed on any of the city's official inventories.” At minimum these open space resources could be identified on an official inventory or the Concept Plan adopted by reference as an official inventory. However, identification does not ensure preservation; therefore, additional measures may be needed to implement this key element.

If access to natural areas and views will be provided by trails that are within or adjacent to protected natural resources, the City should consider amending the Oregon City Parks, Open Space and Trails Master Plans to include those trails in order to take advantage of the exception to mitigation provided in 17.49.170.

Parks and Trails

Key Elements of the Draft Concept Plan

- Network of new parks, open spaces and gathering places.
- Larger park with sufficient for ball fields and other recreational opportunities.
- Trail connections to parks, neighborhood amenities and regional trails system.
- Use of utility corridors for new trails.
- Preservation of private open space for non-public uses.
- Civic uses in various parks and public spaces.

Code Analysis

The South End Concept Plan provides approximately 30 acres of parks (not including the power line greenways). In some cases, the Oregon City Park and Recreation Master Plan may have already identified the location and prioritized the acquisition. In other cases, it may be preferable to seek a dedication of the park at the time of development. However, this may be challenging given that developers will likely be paying a Parks SDC.

Chapter 13.20 establishes system development charges (SDC) to be assessed on development for a range of public facilities including parks. SDCs are intended to pay for the cost of constructing or providing capacity sufficient to accommodate new development. It appears as though the dedication of a “qualified public improvement” would qualify for an SDC credit and that that credit could be carried forward for up to five years. In order for the dedication of park land to be an SDC creditable action the park would have to be identified in a capital improvement plan or facility master plan adopted pursuant to ORS 223.309. Therefore, the City may wish to include all of the SECP parks in the Oregon City Park and Recreation Master Plan in order to allow them to qualify for SDC credits.

Currently, Section 16.08.025 (Preliminary subdivision plat—Required plans) doesn't require that the applicant show the location of future parks, open spaces and trails on their plat. An amendment to this section to add a requirement that applicants identify key Concept Plan features such as future parks, open spaces and trails might be helpful for implementation of the South End Concept Plan as well as other adopted Concept Plans. In addition, a reference to the Oregon City Parks, Open Space and Trails Master Plans would also be beneficial. The City could also establish a South End Overlay District or "Plan District" in Title 17 which could include maps identifying park and trail locations.

Finally, as noted above, if trails will be within or adjacent to protected natural resources, the City should consider amending the Oregon City Parks, Open Space and Trails Master Plans in order to take advantage of the exception to mitigation provided in 17.49.170 (Standards for trails).

Housing

Key Elements of the Draft Concept Plan

- Housing choice - a mix of single family, multi-family and mixed use designations.
- Higher density residential located in two neighborhood centers along South End Road.

Code Analysis

The predominant zones in the Draft Concept Plan are low density residential (R-10, R-8, and R-6). More limited areas will be zoned R-5, R-3.5 and R-2 zoning designations. Duplex and row houses are permitted in the R-3.5 zone and multi-family is permitted in the R-2 zone. By incorporating all of these zones, South End will provide for a range of housing types.

The Concept Plan notes that "many of the lots in the new neighborhoods will have rear service alleyways for accessing garages behind houses and shops." Currently, Section 12.04.255 (Street design—Alleys) requires that public alleys be provided only in the R-5, R-3.5, R-2, MUC-1, MUC-2 and NC zones. If the intent is to have alleys required in the low density residential zones in South End, then a code amendment may be needed. One potential solution is to create a South End Overlay District or "Plan District" which would include those standards unique to South End.

The Draft Concept Plan identifies potential locations for civic uses (e.g., libraries, park pavilions, post offices, schools, day-care centers, senior centers, fire stations, places of worship, community centers, etc.) within the residential zones. However, non-residential uses (except for parks) are limited in the residential zones and most civic uses would require a conditional use permit. This requirement may represent an unnecessary procedural barrier to a desired outcome. If the City were to create a South End Overlay District or "Plan District", maps identifying these locations could be included in the zoning ordinance and exceptions to the conditional use process could be provided for civic uses which are sited in accordance with the plan.

Retail

Key Elements of the Draft Concept Plan

- Limited neighborhood commercial uses along South End Road at Forest Ridge Lane and Navajo Way.

Code Analysis

The Draft Concept Plan notes that “areas of the plan which have been designated as neighborhood centers will be assigned the City’s Neighborhood Commercial zoning category”. The NC zoning district allows a relatively wide range of uses including office, commercial services and retail provided the maximum footprint does not exceed 10,000 sf (or 40,000 sf in the case of grocery stores). If the intent of Concept Plan is to further limit the uses in along South End Road at Forest Ridge Lane and Navajo Way, then a code amendment may be needed. As noted above, one potential solution is to create a South End Overlay District or “Plan District” which would include those standards unique to South End.

In addition, if the desire is to create active retail environment along South End Road within the NC zone, then the limits on outdoor sales in Section 17.24.020, the limits on sidewalk sales in Section 12.04.130, and the maximum setback of 5 feet in Section 17.24.040 should be evaluated for their potential to discourage the desired development form.

Transportation

Key Elements of the Draft Concept Plan

- Complete road network promotes connectivity and increases travel options.
- Opportunities for new sidewalks, pathways and bike lanes.
- South End Road as three-lane arterial.
- Two family-friendly roads parallel to South End Road; the eastern-most designated a collector.
- A slow, narrow road along the bluffs to provide public access and views.*
- Roundabouts to safely accommodate through-traffic at major intersections.
- Optimize number of new street connections to South End Road to preserve capacity.

Code Analysis

The Draft Concept Plan (Figure 13) identifies a complete multi-modal street system, including a grid of future local streets. Additional coordination will be needed in order to implement this plan as individual subdivisions are submitted. The local street grid also appears to require block lengths which are shorter than the 500 foot maximum permitted by Section 16.12.025.

Section 16.08.025.B (Traffic/Transportation Plan) requires that the applicant's traffic/transportation information shall include a “detailed site circulation plan showing proposed vehicular, bicycle, transit and pedestrian access points and connections to the

existing system, circulation patterns and connectivity to existing rights-of-way or adjacent tracts, parking and loading areas and any other transportation facilities in relation to the features illustrated on the site plan....” Including a reference in this section to street system plans identified in adopted concept plans could help ensure that the concept plans are implemented. Similarly, Section 16.12.095 could be amended to specify that the city's planned level of service on all public streets includes planned connections as identified in adopted concept plans. Additionally, if the City were to create a South End Overlay District or “Plan District”, maps showing local street connections could be included in the zoning ordinance.

There are a number of sections in Chapter 12.04 that provide specifications for sidewalks, street and accessway design which may potentially be in conflict with the Draft Concept Plan. For example, the Draft Concept Plan maps identify “Walking Throughway”. These are intended to allow local streets to use a crushed gravel sidepath or sidewalk. However, Section 12.04.020 requires that sidewalks on unimproved streets be constructed of concrete. In addition, Section 12.04.010 (Construction specifications—Improved streets) cites the Oregon City Transportation System Plan as the sources for sidewalk specifications; therefore, the definition of a “Walking Throughway” should be included in the TSP. Overall, some clarification appears to be needed to establish a hierarchy between the design standards in Title 12 and those outlined the Concept Plan. If the City were to create a South End Overlay District or “Plan District” as suggested above and street standards specific to South End were included in it, then new language should be added to Title 12 stating that where a conflict exists the standards in the plan district take precedence.

The Draft Concept Plan identifies a South End Road Cycle Track and specifies that to improve visibility of the bicyclists, the cycle track should drop to a buffered bike lane and on-street parking should be prohibited 30 feet in advance of the cycle track termination when approaching intersections. Chapter 10.32 establishes clear vision areas and Section 10.32.060 prohibits parked motor vehicle within the clear vision area. The suggested intersection sight distances are those prescribed in the 1976 Edition of Transportation and Traffic Engineering Handbook published by the Institute of Traffic Engineers. These standards may need to be updated or an amendment providing further flexibility from these standards will likely be needed to allow the proposed design.

The relationship of the trails and walking throughways identified in the Draft Concept Plan to the City’s current requirements for “accessways” or “pedestrian/bicycle accessway” should be clarified as well. Accessways include any off-street path or way that is intended for the primary use of pedestrians and bicyclists and that provides direct routes between residential areas, retail and office areas, institutional facilities, industrial parks, transit streets, neighborhood activity centers, and transit-orientated developments where such routes are not otherwise provided by the street system. Off-street bicycle paths in excess of four hundred feet in length are not considered accessways. If the standards applicable to accessways are not be appropriate within South End then code should clearly state that the trails and walking throughways are not “accessways”.

Infrastructure

Key Elements of the Draft Concept Plan

- New water and sewer infrastructure constructed with roads to meet community needs.
- Stormwater retention ponds and swales along natural features at edges of plan area.

Code Analysis

Title 13 of the Municipal Code includes the Title 13 City's standards for public services including water, sewer, stormwater, and telecommunications. The fees and SDCs associated with these services are also addressed.

As noted in the Draft Concept Plan, "maximum Daily Demand (MDD) and available fire flow should be re-evaluated to account for the zoning densities shown on the current concept plan." This will likely necessitate an amendment to the 2012 City of Oregon City Water Distribution System Master Plan.

The Draft Concept Plan identifies the need for sanitary sewer improvements and notes that the majority of the homes that are located within the planning area and outside city limits are on private septic systems. Section 13.08.010 requires connection to the public sewer for all houses located within the boundaries of any sewer district. However, Section 13.08.210 does allow the use of a septic tank effluent pump system ("STEP system") as an alternative to the standard sewer used in the city provided that the system is owned, operated, and maintained by the city.

As noted in the Draft Concept Plan the City Engineering Division is currently working to create and adopt a new series of Low Impact Design (LID) standards; therefore, it is recommended that a low impact stormwater approach be developed for the planning area. Presumably the new LID standards will result in amendments to the Public Works Stormwater and Grading Design Standards and may necessitate amendments to Title 13.12 as well.

Appendix F



LAURENCE QAMAR
ARCHITECTURE & TOWN PLANNING CORP.

Memorandum

Date: August 20, 2013

To: Oregon City South End Concept Plan Management Team

From: Laurence Qamar

Re: Task 6.4 – Standards for Building and Site Design

Introduction:

As described in Task 6.4, this memorandum is intended to give direction for the creation of standards for building and site design for South End Concept Plan. This includes

- Review of Code and Subdivision ordinance from a neighborhood design perspective.
- Identification, in this memo form, of additional elements or changes to existing standards. This will include residential, commercial, landscape and street elements.

Subdivisions:

Objective:

- Much of the local street network proposed in the Concept Plan will need to be implemented gradually through incremental land subdivisions.
- The historic parcelization of land on several streets west of South End Road offers unique opportunities to create and interconnect local street network through incremental subdivision of these parcels.

Analysis:

As each parcel is subdivided, the City and the applicant should review the Concept Plan street network, and endeavor to create the street connectivity shown there. Cul de sacs or other types of dead-end streets should be avoided at all costs. As such, new streets should be “stubbed” to adjacent parcels with the goal of being connected through by future neighboring developments.

Streets have been generally located on the Concept Plan in locations that are either in the midline of long parcels (such as off of Beuttel Road) or straddling property lines. The prior condition is preferable since it enables one land developer to place a street down the centerline of the parcel and match the design quality of both sides of that street.

It's also critical for the overall build-out of the street network that a “T” street be created at the back end of each of these long parcels so that a new east/west street network can be established.

A Pocket Neighborhood Ordinance should be considered for the City. In general, this would enable small clusters of about a dozen smaller cottages to orient onto a central common greenway with their vehicle access and parking provided through rear alleys or a common parking court. Without the need for a condominium, these lots are accessible from a street only through a pathway system. Thus the following code provision would be eliminated. **“16.08.045 Building site—**Frontage width requirement. Each lot in a subdivision shall abut upon a cul-de-sac or street other than an alley for a width of at least twenty feet.”

Instead of using a block length standard to determine maximum spacing of streets, lanes, alleys and pedestrian paths, it is helpful to establish maximum block perimeters. While maximum block perimeters for full streets can be between 1,600 to 2,000 feet, it's important to break down that relatively large block into smaller increments. A block perimeter could be set at 800 to 1,000 feet with the use of narrow alleys, lanes, or multiuse paths. (The intent of this is not to enable cul de sacs that would be extended with only pedestrian paths. That approach may be suitable as a retrofit to an existing cul de sac.

Residential:

Objective:

- An overriding neighborhood design standard principle that is employed in the South End Concept is called the Urban to Rural Transect.
- From a building placement and design standpoint, housing of all types is designed to enhance the quality of the streetscape experience (public realm).
- Private outdoor space on each lot is encouraged, primarily in the rear or side of the houses.
- Houses are placed relatively close to the street to provide “eyes on the street”, which encourages both neighborly interaction and general local surveillance of the streets.

Analysis:

Urban to Rural Transect is a general principle by which more “urban” conditions are located closer to the center of a village, town or neighborhood, while more rural conditions are located around the more natural edges of the neighborhood. Logically, higher density housing types, tighter setbacks, greater mix of uses, and more compact urban spaces are found near a main street neighborhood center. Lower density, larger lots, more consistent residential uses, and broader open spaces are found around neighborhood edges and natural open spaces. This concept can help to make decisions about everything from building materials, scale and composition to street design and landscape.

Applied in a code, Transect based standards are allocated to specific zones shown on a neighborhood map.

Another broadly general principle consistent to all housing is that buildings are generally placed closer to the street with parking located behind the front facades. On-site parking is generally tucked back behind building fronts, thus making house fronts lively and engaging to the street. This is accomplished in two ways:

- Rear alleyways - The purpose of requiring rear service alleys for housing is to provide alternatives to on-site parking in the front yards of houses, town houses, or apartments.
- Front-Loaded garage setbacks - There are alternatives to rear alleyways to achieve goal of a lively street front. Lots that are wider than 60' can avoid the need for a rear alley. At this width, a two-car wide garage can be accessed from the street frontage as long as it is setback minimum 20' from the house front. If a garage is about 20-22' wide, side setbacks are minimum 5' each side, and the lot is 60' wide, the resulting house would be maximum 28' wide. The ratio of house to garage width in this scenario would present the house as a dominant feature to the street.

By eliminating large garage doors and driveways from the house fronts, the front yard setbacks can be reduced. House front setbacks can be as little as 4' from the front property line. This allows greater rear yard depth to enhance private space.

The closer the house is to the sidewalk, the higher the entry floor level should be raised. Entry floors should be about 18"-24" above the sidewalk if the house is closer to the street.

To further encourage lively building frontages to the street, we encourage architectural elements to be added to house fronts. A Frontage Zone provides an area between the sidewalk and the Primary Building Facade. The Frontage Zone can accommodate elements such as porches, balconies, bay windows, patios, forecourts, dooryards or front stoops. These elements enliven the public realm of the fronting streets by turning the orientation of the house to the street, and relegating the rear alleys to the more service oriented role of parking. Thus, a Primary Building Façade line can be setback 12' from the right-of-way (ROW), with a Frontage Zone at only 4' from the ROW, thus allowing an 8' Frontage Zone for a porch and or a stoop.

While side setbacks can adhere to standard fire safety limits, rear setbacks play a unique role. Assuming a rear alley condition, the garage should be setback no more than 6-8' from the alley ROW. Additional parking outside of the garage should only be located beside the garage, not in front of the garage doors. For this reason, the garage should not be pushed any deeper into the lot than 6-8'. This setback in addition to a 20' alley ROW width will give 26'-28' of backup space for vehicle maneuvering into garages.

Garages that are detached from the back of the houses should be encouraged. Detached garages offer several benefits. They can accommodate an extra bedroom or Accessory Dwelling Unit (ADU) above. Very nice, private rear yards can be created between detached garages and the main house.

Commercial:

Objective:

- The Urban to Rural Transect principle applies to the retail main street.
- Retail buildings of all types are designed to enhance the quality of the streetscape experience (public realm).
- Retail shops are placed right up to the main street sidewalks to .
- On-street parking (with additional overflow parking in the rear) provides easy and convenient access and visibility to shop front (without the use of upfront parking lots).

Analysis:

The Neighborhood Retail centers are designed to function as a Main Street to the neighborhoods. The design of the street and placement of buildings close up to the street is essential to it function as a successful pedestrian oriented retail street.

The street needs to be narrow enough for pedestrians to cross-shop, which is to see shops across the street and comfortably walk across at frequent crosswalks. Maximizing parallel or diagonal on-street parking will offer customers easy access to shops, without reverting to upfront parking lots that are indicative of commercial strips. While on-street parking may not accommodate all the shoppers at a peak time, alleyways access rear parking lots behind buildings in the mid-block. Rear alley parking is well signed and lighted, and has pedestrian passages to the main street frontages.

Design standards should encourage buildings that have a more distinct storefront retail character. This can include parameter flat or pitched roofs. However, sometimes a more residential looking store with pitched roofs can mingle with the parapets. Live/work establishments can be encouraged as a way to mix retail and residential vertically or horizontally. Workshops and office can also be encouraged above or behind retail storefronts.

In order to encourage a variety of elements on the fronts of stores, a Frontage Zone should be used in regulating retail buildings. Storefront elements can include awnings, bay windows, upper balconies, and café seating. Either these elements can be allowed to encroach into the public realm of the sidewalk, or a setback zone on the retail lot can be paved as a sidewalk, and these elements can reside on that private setback.

Landscape:

Objective:

- The Urban to Rural Transect affects the design of landscape throughout the neighborhood.
- More urban and hardscape elements are located closer to the neighborhood center, while more rural and organic characteristics occur in the residential and outer edge zones.

Analysis:

Landscape edges to the private lots can offer a great deal of variety in the neighborhood while maintaining a lot of the rural, and agrarian qualities of the existing community.

Edges to private lots are primarily fences, hedges and walls. Mainly hedges and fences are found in the South End neighborhoods today. These Edge Types can be delineated into more urban and more rural categories. Standards can be established by which a list of more or less urban/rural Edge Types are encouraged to be placed around residential lots. Hedges that are low and highly manicured tend to be more urban, while larger overgrown hedges are more rural. Painted picket fences with a little ornament tend to be more urban, while horizontal board and split rail fences are more rural. There are some existing old wire fences along some of the rural lanes that can be included in this rural category. However, standard chain linked fences should be avoided.

Fences along public rights of way should generally be 36" maximum height. While we encourage this 36' height to be adhered to also on the sides and rears of lots too, we acknowledge that some residents may desire taller fences in those locations.

Street Elements:

Objective:

- The Urban to Rural Transect affects the design of streets throughout the neighborhood.
- More urban and hardscape elements are located closer to the neighborhood center, while more rural and organic characteristics occur in the residential and outer edge zones.
- Streets are first and foremost public places for pedestrians and the residential and retail properties that abut them. Streets only secondarily provide a function of transportation. If motor vehicle mobility is allowed to override the comfort and convenience of pedestrians, the function of the street is broken.

Analysis:

We encourage travel speeds are reduced in general compared to conventional standards for arterials, collectors and local streets. Reducing speeds increases safety for pedestrians, cyclists and drivers. Narrowing street widths is the best means to reduce travel speeds.

The Urban to Rural Transect is applied to streets in several ways. Curbs and gutters can be used in urban places, while curbless streets and open rain garden swales can occur along more rural streets. On the most rural streets such as along the edges of the bluffs, the parking lanes can be left as compacted gravel to reduce impervious surfaces, and offer a more rural country-road affect.

Rear alleyways and lanes tat cut through long blocks can also have that more rural character by paving only about 12' of the 20' ROW, leaving two 4' compacted gravel shoulders. In the more urban main street areas, the whole 20' ROW of the alleys should be paved, due to greater traffic, wear and tear.

We do not encourage the use of bulb-outs, rain gardens, special pavers and storm water curb cutouts in the parking lanes. Rain gardens should occur only in the planting strips. Bulb-outs for shortened pedestrian crossing should only be placed occasionally on the main street. These elements tend to clutter the visual simplicity of traditional streetscapes found in historic Oregon City. They can be designed functionally without being as aesthetically bold as typically designed.

Appendix G

Oregon City South End TABULATION OF QUANTITIES

Client: **City of Oregon City**
Estimator: **C. Fergeson, 3J Consulting, Inc.**

Date: **10/17/2013**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
System Improvements (SI)					
Water System Improvements					
SI-1	12" DI	12,500	LF	\$115.00	\$1,437,500
SI-2	8" DI (Replace existing CRW water lines with new 8" City-owned water lines)	15,045	LF	\$90.00	\$1,354,050
SI-3	8" DI	10,500	LF	\$90.00	\$945,000
Water System Improvements Subtotal					\$3,736,550
Design Costs (20% of Construction Cost)		20 % of	Construction Total		\$747,400
Construction + Design Cost					\$4,483,950
Contingency (15%)		15 % of	Construction + Design Cost		\$672,600
TOTAL CONSTRUCTION ESTIMATE					\$5,156,600

General Notes:

- Quantities are based on electronic GIS design files dated 08/28/2013 by 3J Consulting (Available Upon Request)
- Contractor to furnish all materials, labor, and equipment to complete the above construction schedule items
- All unit costs assume in-place construction including all ancillary items required (ie. Backfill, fittings, shoring, etc)
- LF cost include hydrants, valves, valve boxes, pipe, fittings, and connections to existing system
- Unit Costs in 2013 currency



Oregon City South End TABULATION OF QUANTITIES

Client: **City of Oregon City**
Estimator: **C. Fergeson, 3J Consulting, Inc.**

Date: **10/17/2013**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
System Improvements (SI)					

Sanitary Sewer System Improvements

SI-5	12" PVC-SDR35 (Includes pipe and fittings)	4,600	LF	\$100.00	\$460,000
SI-7	Manhole (48")	12	EA	\$4,000.00	\$46,000
SI-8	Basin E6 Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$300,000.00	\$300,000
SI-9	Basin E7 (north) Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$300,000.00	\$300,000
SI-10	Basin E7 (south) Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$300,000.00	\$300,000
SI-11	Basin E6, E7 & X1 (combined) Sewer lift station (Per Oregon D.E.Q Standards)	1	EA	\$800,000.00	\$800,000
SI-12	Sewer force main (4" min. diameter)	5,400	LF	\$60.00	\$324,000
SI-13	Sewer force main (10" min. diameter)	5,120	LF	\$80.00	\$409,600

<i>Sanitary Sewer System Improvements</i>	\$2,939,600
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Design Costs (20% of Construction Cost)	20 % of	Construction Total	\$588,000
Construction + Design Cost			\$3,527,600
Contingency (15%)	15 % of	Construction + Design Cost	\$529,200

TOTAL CONSTRUCTION ESTIMATE

\$4,056,800

General Notes:

- a. Quantities are based on electronic GIS design files dated 08/28/2013 by 3J Consulting (Available Upon Request)
- b. Contractor to furnish all materials, labor, and equipment to complete the above construction schedule items
- c. All unit costs assume in-place construction including all ancillary items required (ie. Backfill, fittings, shoring, etc)
- d. Force main LF cost include pipe, fittings, and connections to existing system
- e. Unit Costs in 2013 currency
- g. Land Purchase and Right-of-Way acquisition not a part of calculations



Oregon City South End TABULATION OF QUANTITIES

Client: **City of Oregon City**
Estimator: **C. Fergeson, 3J Consulting, Inc.**

Date: **8/28/2013**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL
System Improvements (SI)					

Stormwater System Improvements

SI-11	12" HDPE (w/ Rock Backfill)	20,900	LF	\$100.00	\$2,090,000
SI-12	Manhole (48")	50	EA	\$3,500.00	\$175,000
SI-13	Green Streets (Includes grading, liner(s), planting media, outlet structure, and piping)	34,640	LF	\$250.00	\$8,660,000
SI-13	Regional Pond Construction (Includes grading, flow control structures, plantings, and safety fencing)	21	AC	\$228,000.00	\$4,851,751

Stormwater System Improvements
\$15,776,751

Design Costs (20% of Construction Cost)	20 % of	Construction Total	\$3,155,400
Construction + Design Cost			\$18,932,151
Contingency (15%)	15 % of	Construction + Design Cost	\$2,839,900

TOTAL CONSTRUCTION ESTIMATE	\$21,772,100
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General Notes:

- a. Quantities are based on electronic GIS design files dated 08/28/2013 by 3J Consulting (Available Upon Request)
- b. Contractor to furnish all materials, labor, and equipment to complete the above construction schedule items.
- c. All unit costs assume in-place construction including all ancillary items required (ie. Backfill, fittings, shoring, etc)
- d. Unit Costs in 2013 currency



Appendix H

Facility Type	Qty	Unit	High Cost/ Unit	Comment	Low Cost/ Unit	Total for Lower Cost Options
Shared-Use Paths:	25,725	LF	\$450	higher costs in wetland areas	\$235	\$6,045,375
Family-Friendly Street (local streets) with center island Shared-use path:	5,022	LF			\$220	\$1,104,840
Family-Friendly Street (local streets) with roadside Shared-use path:	5,065	LF			\$215	\$1,088,975
Large Community Park with Community Center:	10	Acre	\$950,000	costs vary depending on design details	\$750,000	\$7,500,000
Village Center:	1	Acre	\$6,000,000	costs vary depending on design details	\$1,450,000	\$1,450,000
Neighborhood Park:	1.7	Acre			\$450,000	\$765,000
PGE/BPA Corridor Greenway (trail portions of costs included in shared-use path quantities above):	12	Acre	\$195,000	less cost for simple hydroseeded areas adjacent to trail	\$115,000	\$1,380,000
						\$19,334,190



Community Engagement Summary February 27, 2013

As an integral part of the South End Concept Plan process, the City of Oregon City has conducted extensive outreach to the South End and greater Oregon City community. The purpose of this outreach is to help establish a preliminary community vision and values to guide the Concept Plan process. The values also will be used to develop evaluation criteria for the draft and final Plan. With assistance from the Community Advisory Team (CAT), a number of outreach methods were used. The first phase of outreach included stakeholder interviews, an online survey and Community Conversations. Phase 2 invited community participation through a video hosted on the project website (www.southendconceptplan.org) to participate in a Community Open House and interactive online forum. The following is a summary report of community engagement efforts to date. A detailed compilation of comments also will be available for CAT members and public review.

Community Engagement Phase 1 Results

From October 2012 through February 27, 2013, Oregon City staff, the consultant team and CAT members heard from several hundred South End and Oregon City residents through eight interviews, 40 online survey responses and eighteen conversations with community and civic organizations. The following is a summary of responses to two basic questions asked in each engagement:

1. How would you describe South End? What do you like best about South End?
2. Is there anything you would change about South End to make it better?

The Phase 1 results also include responses to the same two questions from 23 comment cards collected at the Community Open House described in the Phase 2 section. Responses are listed in descending order of number of times mentioned, with the number of responses shown in parenthesis.

How would you describe South End? What do you like best about South End?

- Rural character (45)
- Attractive, livable, good neighborhoods and sense of community (25)
- Open/green spaces, trees, wildlife (24)
- Quiet, peaceful (17)
- Large lots, low density (16)
- Road to Highway 99E and Canby (16)
- Proximity to city (10)
- No commercial activity (10)
- Safe (9)
- Free of traffic and congestion (8)
- Views and scenery (7)
- McLoughlin Elementary, good schools (7)
- Not a part of Oregon City (4)

Is there anything you would change about South End to make it better?

- Add small (no big box) commercial/retail services, such as a grocery store or coffee shop (28)
- Make South End more safe and walkable, especially near McLoughlin Elementary (26)
- Improve infrastructure including roads and sewer; new infrastructure underground (25)



- Provide community gathering places such as parks, plazas and sports fields (19)
- Provide public transportation (17)
- Preserve open space and natural, historic and cultural resources (15)
- Add bike paths (14)
- Provide trails and other connections to the city, McLoughlin Elementary and other amenities (14)
- Maintain large lots; no new housing (11)
- Provide a wider variety of housing options: multi-family, senior and low income housing (11)
- Add street trees (7)
- No commercial development (6)
- Provide jobs (5)
- Highlight McLoughlin Elementary as the center of the community (3)
- New development fits existing character; buffer new development (3)

Community Engagement Phase 2

The City of Oregon City, with assistance from the CAT, conducted a Community Open House on December 13, 2012. Approximately 100 community members participated in this event. The purpose was to verify that preliminary values identified through interviews, the online survey and Community Conversations mirror those of the broader community. The open house also was used to identify opportunities for future enhancements that will preserve South End's key attributes and make it an even better community for current and future residents.

The open house provided several opportunities for comment. Participants were asked to identify which preliminary values they consider most important. Participants also commented on maps showing existing parks and natural systems and elements of the built environment. In addition, participants submitted 23 comment forms with responses to similar questions.

An interactive online forum or "virtual open house" was launched in conjunction with the December 13th Community Open House and allowed participants to answer the same questions asked at that event. In all, 210 people participated in the forum. Participants were asked to prioritize the list of preliminary values and add values they felt were missing from the list. They also were encouraged to place icons representing parks and natural features and elements of the built environment on a map of South End. When placing the icons, they had the opportunity to provide comments describing what future improvements they desire or identifying important community assets that should be recognized, enhanced or preserved.

Values

Open House Station

Participants identified the following preliminary values as most important. Values are listed in order of most responses, with the number of responses shown in parenthesis.

Preliminary Values:

- Rural character, quality of life (78)
- More large lots/limited high density housing (50)
- No commercial development (47) [Note: some thought this may pertain more to perceptions about "big box" development.]
- Nature (26)
- Safe streets (24)



South End Concept Plan



- Transportation choice: transit, bike, walk, auto (24)
- Education and schools (19)
- Access to parks and recreation opportunities (14)
- Access to shopping (14)
- Family-friendly (14)
- Senior living facility (14)
- Connections: streets, trails (13)
- Bike/walking lane throughout main streets (12)
- Sense of community (11)
- New gathering places/community center (7)
- No requirement for street trees (7)
- Access Beutel to 99 (5)
- Access to trails (4)
- Keep private well/septic (4)
- No city police (2)

Comment Forms

Nine open house participants ranked the following list of values on their comment forms. Responses are listed in order from 1 to 10 or highest rank to lowest.

Values	# of Responses	Highest Rank	Lowest Rank	Average Rank
Safe streets	8	1	8	2.50
Rural character, quality of life	9	1	9	4.00
Family-friendly	7	2	10	4.14
Education and schools	7	1	9	4.43
Transportation choice (transit, bike, walk, auto)	6	2	8	5.00
Nature	7	1	10	5.14
Access to parks and recreation opportunities	6	3	7	5.33
Access to shopping	5	2	10	6.00
Access to trails	7	2	10	6.14
Connections (streets, trails)	7	2	9	6.14

Interactive Online Forum

Thirty six participants in the virtual open house ranked the following list of preliminary values. Responses are listed in order from 1 to 10 or highest rank to lowest.

Concept Plan Element	# of Responses	Average Rank
Rural Character/Quality of Life	115	2.45
Schools	83	2.71
Family Friendly	123	2.85
Access to Nature	100	2.93
Trails, Parks and Recreation	116	3.05
Access to Shopping	57	3.07
Safe Streets	106	3.19
Transportation Options	70	3.29



South End Concept Plan



Connections (Streets/Trails)	85	3.73
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Parks and Natural System

Open House Station

The following comments were recorded on the map and flip chart:

- There is an historic building that was built in the late 1890s or early 1900s and three heritage trees at 19868 South End Road
- Concern about private common areas being converted to any public use – please keep them private
- Connection through trails
- Interpretive trail markers
- Provide additional natural open space with additional development; minimize ball fields
- Provide a mixed open space to serve the South End Area
- Concern about crime when using utility corridor for trail or other public use
- Include some working landscape (farms, forests, community gardens) to promote wildlife diversity and to serve local foods needs
- Consider seismic conditions
- Need to address sewer backups with any additional growth
- Pervious surface with flash storm events
- Need to make sure new parks and green space are maintained and staffed which is not the case in green space just outside the study area
- Would like to be able to access Metro natural area from the north, i.e. Forest Ridge Road
- To preserve the green space for community gardens and farming, do not connect Parrish Road

Comment Forms

What else should we consider about parks and natural systems?

- Keep private green areas private (3)
- Consider how many kids will come out and vandalize the parks and trails
- Keep the farmland zoned for farming only; no commercial development or strip malls
- How would more trails and parks be financed and kept up?
- Trail for the BPA Power line right-of-way would be great
- Connect walking and hiking paths
- Good lighting, parking space, rest rooms and safe for users of the areas
- Leave as is; seniors and retired people cannot afford the price of sewer, the price of sidewalks or anything else for improvement or money especially if it has to be put onto property taxes



South End Concept Plan



Interactive Online Forum

Participants in the virtual open house identified the following parks and natural systems improvements they would like to see made in the future, and assets they want enhanced or preserved. Go to the following web address to see the location of suggested parks and natural systems improvements and assets: <http://bit.ly/13Yzg23>.

Concept Plan Element	# of Responses	Type
Preservation	102	Open Space (40) Trees (38) Views (5) Historic Structure (2)
Natural Systems	82	Wildlife Habitat (41) Trees (13) Streams (6) Wetlands (3)
Parks/Recreation	65	Neighborhood Park (27) Regional Park (8) Greenway (6) Ball Field (6) Pocket Park (2)
Trails	33	

Comments

- It would be nice to have some boating access in the area
- The South End Creek could be so much more with limited access and preservation
- A greenway which includes a multipurpose path from the Parrish area to John McLoughlin School is a must have
- Utilize the existing private ball field
- Work with the school district to make for more park space on the existing site
- I'm not exactly sure where the Metro-owned park land lies in relation to this map, but I would love to see access to the land from the top of the hill
- Preservation of the natural land and farmland on the bluff

Built Environment

Open House Station

The following comments were recorded on the map and flip chart:

- Lack of sidewalks near John McLoughlin Elementary is a hazard for kids
- Pedestrian access to Metro open space is needed; walking/hiking occurs north of Forest Ridge Road

Comment Forms

What else should we consider about housing, infrastructure and services?

- No high density housing (i.e., row homes); keep large lots (6)
- Consider using cluster housing with open spaces as a way of preserving open space
- Until the housing market has unoccupied homes sold- no new homes; take the housing out towards the high school
- Increased housing and more people will stress transportation system; area has limited ways in and out



South End Concept Plan



- We do not want to be part of the City
- Don't change Beutel road and it's good there is no transit service
- Preserve historical buildings on old Kelland property at 19868 S. South End Road; keep trees when developing as much as possible
- Keep the rural feeling
- I would like all housing development outside city limits pulled into city do to needing sewers, do to septic failure due to corrosive soil; I would love to be able to develop my property
- I am older and wonder about senior housing such as the Canby's "Hope Village" in a natural area
- Yes to an extension of Parrish road to connect South End Road and Central Point Road

Interactive Online Forum

Participants in the virtual open house identified the following improvements they would like to see made to the built environment. Go to the following web address to see the location of suggested improvements to the built environment: <http://bit.ly/13Yzg23>.

Concept Plan Element	# of Responses	Type
Residential	99	Single Family (63) Townhomes (8) Mixed Use (7) Apartments (6) Cottage Housing (4) Senior Housing (2)
Sidewalks	81	
Shops	68	Coffee Shop (21) Small Grocery Store (16) Café (15) Large Grocery Store (8) Pub (6) Convenience Store (2) Dry Cleaner (1)
Bike Lanes	49	
Transit	49	
Gathering Places	45	Plaza (7) Library (5)
Safety	25	Traffic Calming (10) Crosswalk (5)
Streets	21	

Comments

- Add a bus line on South End Road (5)
- Add southbound left turn lane, and prohibit left turns coming out of school driveway to end morning gridlock
- Increase speed limit from city limits to 99E to 50mph
- Would love to walk to coffee
- Consider look at more community streets without curbs and sidewalks but also designed with little to no cut through traffic; community walkways which are more of a resort style walkway system
- How about mixing senior living with a day care facility or a community farm



South End Concept Plan



- How about a Community general store; a post office business, maybe a diner counter, small hardware
- Haircuts, gift shop, bistro
- Lots of the cottage housing options with the resort trails of connectivity vs standard street sections
- Sidewalk in front of McLoughlin School where deep ditch currently is
- A standard bike lane all along South End road would encourage cycling tourism in our area, and be safer for our residents who cycle
- Dangerous riding a bike out past Parrish
- We need to extend Beutel Road down to Highway 99 below; without this extension this concept plan area is basically land-locked and not capable of expanded housing or virtually any type of development
- There should be sidewalks for students/families to walk all the way to the elementary school
- For walking biking into school, parks, subdivision neighborhoods; many people already do, but it is dangerous
- New housing developments should not be allowed to take out old growth/100 year old trees; street noise, fast cars and displacement of wildlife are unacceptable

Next Steps

The information gathered through community engagement efforts was used to draft the South End Community Vision and Values. The Values will guide development of the South End Concept Plan and be used to evaluate the final plan.



Forum on the Future of South End **Part 1: Comment Form Results** May 7, 2013

Introduction

Approximately 100 community members participated in Part 1 of the *Forum on the Future of South End*. The Forum was led by City of Oregon City staff, with assistance from consultant staff and members of the Community Advisory Team (CAT) on April 13, 2013 from 1 to 4pm at John McLoughlin Elementary School. Approximately 100 people participated in the Forum. An online platform was launched April 15th to compliment the Forum. Participants were able to answer the same questions asked at the April 13th event. As of May 7th, 48 people completed the online survey.

The purpose of the Forum was for community members to review and comment on three future community design concepts for the future of South End. The alternative concepts were derived from 18 community-created design maps, but also considered the South End Vision and Values, evaluation criteria, existing built and natural conditions in the area and regulatory requirements. Community comments will be used to create a preferred community design concept that incorporates the most favored elements of the three alternatives.

Themes

Several themes emerged from the community comments and will guide the draft concept plan map.

- No one concept is preferred over another. All three concepts received moderate support.
- Scale back the intensity of development, both in terms of residential densities and the number of mixed-use/neighborhood commercial areas. Include two commercial areas; one to the north and one to the south.
- People support the system of parks, trails and natural areas and want to see the large park incorporated into the concept.
- There is support for the road parallel to South End Road, loop road along the bluff and round-a-bouts.
- There is concern about the ability of South End Road to handle increased traffic.
- Include a civic use, such as a post office or library.
- A café or coffee shop is the most desired use for a commercial area, followed by grocery store, live/work space, community services (e.g. child care) and services (e.g. dry cleaner).
- Medium and large lot single family homes are the most desired housing choice for the area. Live work space and senior housing also received numerous votes.
- The most desired parks elements include walking and biking trails, a nature center, playground equipment and dog park.



South End Concept Plan



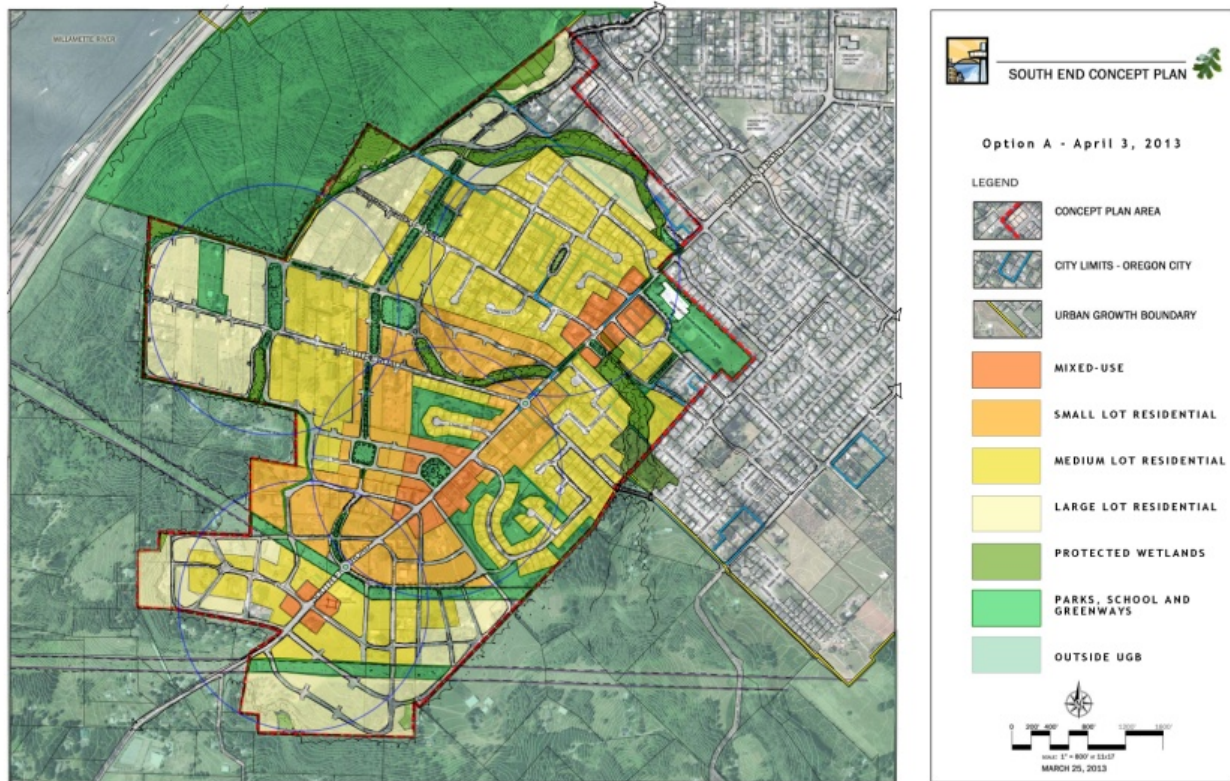
- People feel increased traffic on South End Road should be accommodated through new sidewalks and pathways, creating one or two parallel roads and adding a center lane to South End Road.

The following is a combined summary of comments received at the Forum and online.



Community Design Concepts

Concept A



1) What characteristics of Concept A do you like best? Least?

- Best
 - Distributed mixed-use clusters. (6)
 - Parallel road. (3)
 - Small and numerous parks. (2)
 - Maintaining rural feel within core areas of small lot residential that can't access services.
 - Organization of R6 to R10 development.
 - Roads at the edge of the boundary/along the bluff.
 - Round-a-bouts.
 - Southern portion of the area.
- Least
 - Too many commercial/retail/mixed-use areas. (4)
 - Parks are too small.
 - Small, strip-mall type mixed-use because it is spread out.
 - Not enough open space to small lots.



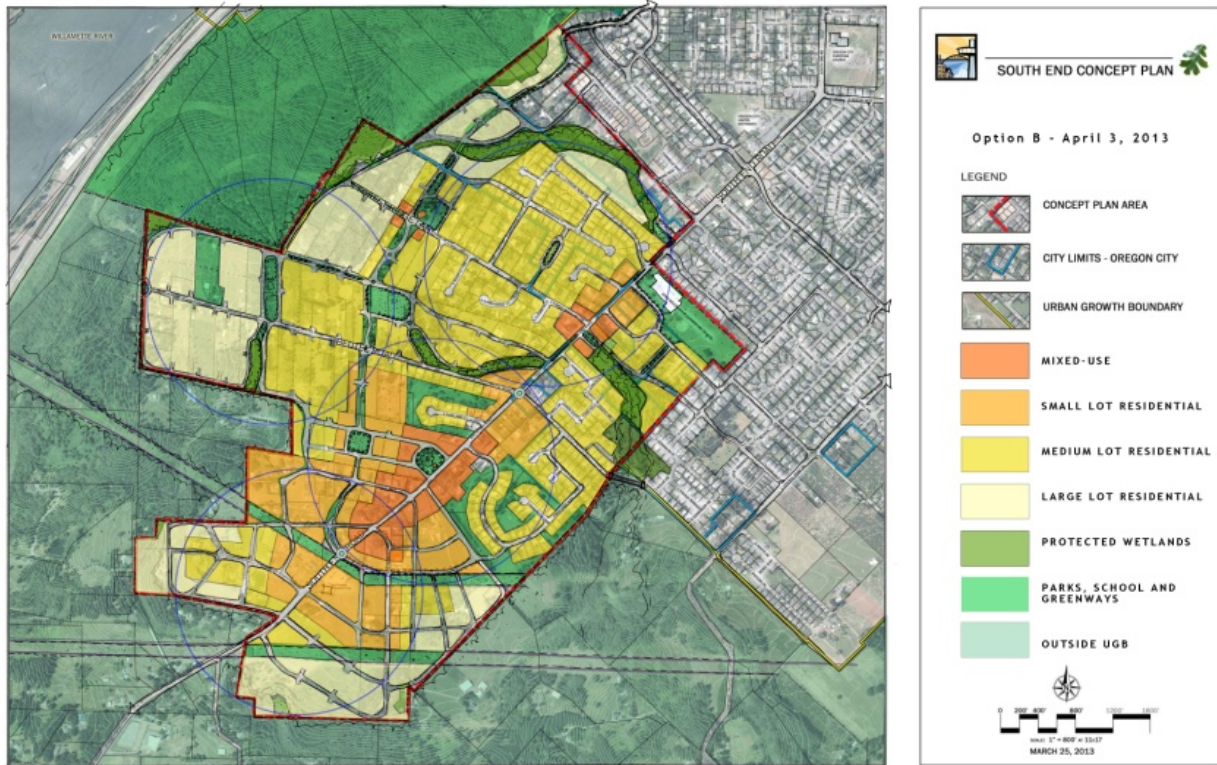
- Road along the bluff.
- Round-a-bouts.
- Traffic impacts.
- Keep environmental issues very important.
- Need an east-west access route over the wetland.
- We live in Finnegan's Way, we are for annexation, and we would like to be able to divide our property.
- No need at all for commercial anywhere in this area. Why ruin the area?
- All of these concepts show roads going right through the new house I am building on Forest Ridge Road, so you might want to update your plans to take that in to account.
- This is the least bad option. All of these options are filled with "planner-speak," and Metro is guiding us into something that most of the residents out here do not want. Metro, just leave us alone.
- Commercial use areas would lower our standard of living and increase the crime rate. It should stay residential only.
- I would prefer the highest density housing to be located at the commercial area right at the southern most power line crossing. I dislike the conflict area between Finnegan's Lane and South End; move that closer to the commercial area.
- No sidewalks away from South End.
- Parrish road connection crossing wetland – sewer – is a major obstacle.
- In the morning, South End north currently backs up the hill. The right turn on Tumwater was closed? The more dangerous left hand from 99 to Tumwater left open. Adding another 1000+ homes will increase the morning traffic jam.
- Lots should be big enough to have a good yard and place to play.

2) One a scale of 1 to 5, with 1 being “least support” and 5 being “most support,” how do you rate Concept A?

Rate 1	Rate 2	Rate 3	Rate 4	Rate 5	Average
16	2	9	13	8	2.90



Concept B



3) What characteristics of Concept B do you like best? Least?

- Best:
 - Single mixed-use concentration near the south end of area. (4)
 - Civic building or center.
 - Dense housing close to South End Road where transit would be accessible.
 - Parallel road.
 - Parks.
 - Preserve access to bluffs.
 - Retail.
 - Roads to ease traffic on South End Road.
 - Round-a-bouts.
 - Small, mixed use area along Forest Ridge Lane for interpretation center and park facility.
 - Small to large transitions.
- Least:
 - Do not need commercial uses/mixed-use areas are too clustered. (3)
 - Concentration of destinations.
 - Too many small lots to maintain country feel.
- Who will pay for parks? No new taxes.



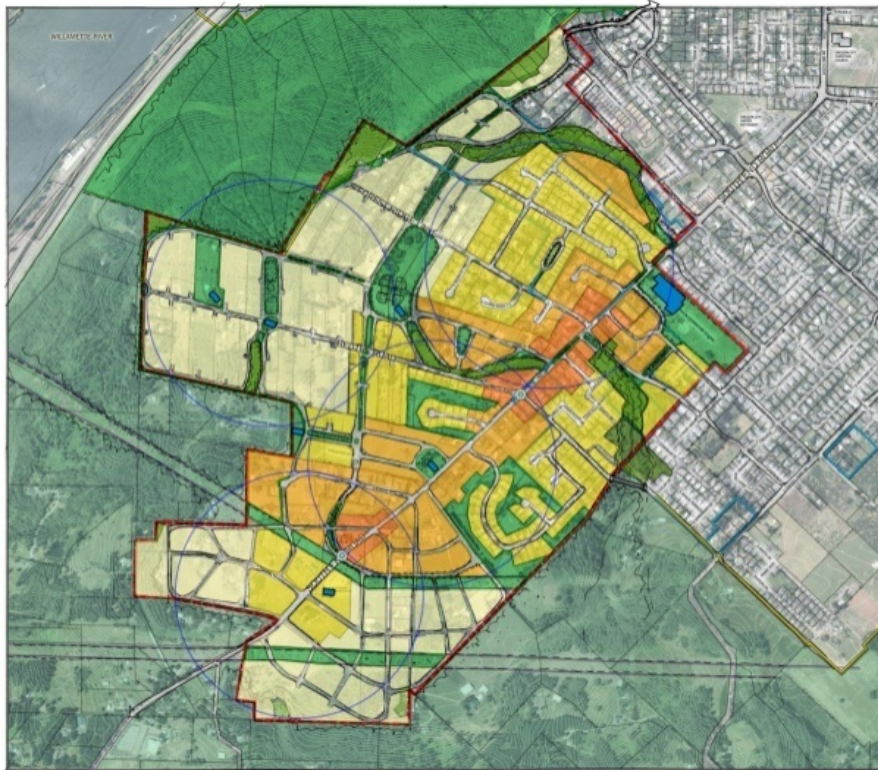
- I like having a bigger commercial area concentrated in one area rather than several smaller commercial strips. I think both businesses and customers will be attracted to a single cluster of commercial development because it forms a critical mass. Image the attraction of several of the following: bakery, coffee house, pub, boutique grocery, fruit/veggie stand, restaurant, ice cream store, dance studio, pizza parlor, art gallery, boutique clothing shop, antique dealer, florist, bike shop -fronting or nearby a lovely park for walking or taking kids to play. That's a place people will enjoy hanging out – and will make a destination. Much better than a few 7-Elevens and gas stations in pockets here and there with no neighborhood feel or drawing power other than quick-stop convenience. A commercial magnet will be good for economy and will reduce traffic congestion on outgoing arteries because people will stay in South End area rather than driving elsewhere to shop, dine, get a bite to eat or meet friends.
- Better distribution of high density housing but still right on South End Road. It would be better moved to the east.
- The commercial area isn't clear, but it should be much closer to the power lines on the south edge of the plan – this would take into account a future expansion of the urban growth boundary, but most of all encourage east/west roads near that area to improve cross town traffic and reduce the north bound load and the Warner Parrot/South End intersection.
- Keep Beutel slow.
- Housing at a variety of prices and rents.
- Sidewalks on South End.
- Community gardens.
- Pedestrian / bicycle links to middle and lower districts of the City.
- Need another access to 99E from South End.
- No commercial use or apartments.
- No townhouses.
- No small lots.
- Walkable communities.
- Compact urban form / transit oriented development.
- Like commercial area concentrated in one area and the south location on Concept B will draw coffee shops, bakeries, brew pubs and have park in the area – nice place to visit nearby w/o driving into Oregon City downtown. Keep traffic in the area.

4) One a scale of 1 to 5, with 1 being “least support” and 5 being “most support,” how do you rate Concept B?

Rate 1	Rate 2	Rate 3	Rate 4	Rate 5	Average
15	7	8	6	8	2.66



Concept C



5) What characteristics of Concept B do you like best? Least?

- Best
 - Parks/large park. (8)
 - A lot of large lot residential/rural character. (4)
 - Retail/mixed-use area. (3)
 - Civic use/post office. (2)
 - Environment is the focus. (2)
 - Round-a-bouts. (2)
 - Main street.
 - Most dense housing closest to South End Road (transit).
 - No concentration of mixed use.
 - Parallel road.
 - Shops.
- Least
 - Concentration of mixed use near school. (2)
 - High density housing on South End road.
 - No commercial needed.
 - Parallel road.
 - Too many civic buildings.



South End Concept Plan



- Traffic impacts.
- Bark dust trail system. (2)
- With concentration of mixed use near school, more homes will have to be removed and converted.
- Is a sport complex a stadium like at Jackson?
- You are creating new choke points; there will still be only one north-south road.
- There are better concentrations of transitions elsewhere.
- What is meant by "a slow narrow road along the bluffs to provide public access and views"? Is this a car road or walking road? Where will people park to do this activity? I live along the bluff and this will destroy the wildlife habitat as well as my own personal habitat.
- No transportation in any of the Plans.
- I like this concept best however I'm not fond of splitting up the mixed use neighborhood commercial on either side of South End Road. I like the area that kind of looks like a couplet just south of Finnegans Way but on the west side of South End.
- This has too many "community buildings" too hard to maintain and keep "nice." Too much high density housing right on South End Road would be better moved to the east and south a bit.
- Consider landslides when planning, especially along bluffs and South End Road
- Connecting loop for recreation.
- Want medium residential at 11140 Forest Ridge, just past Allen Ct. No park area.
- Open up end of Forest Ridge to Metro Park, then park on Forest Ridge not needed.
- Bicycles and sidewalks on South End.
- No commercial.
- No apartments.
- Community gardens.
- No small lot houses.

6) One a scale of 1 to 5, with 1 being "least support" and 5 being "most support," how do you rate Concept C?

Rate 1	Rate 2	Rate 3	Rate 4	Rate 5	Average
12	3	10	8	9	2.98



Questions

7) What would you like to see in South End that is not included in any of the three concepts?

- Art.
- Consider pedestrian/bike access into this area from other parts of Oregon City – currently isolated, high traffic roads.
- Really like emphasizing access for everyone to the views and beauty of the area.
- A small playground or park for children.
- No expansion of Oregon City Limit.
- Transportation, education and care for transition.
- Great work.
- More curved streets, no cul-de-sacs.
- Keep lights under observatory standards, so we can still see the stars at observatory.
- Library and community center including gym.
- Boulevard of 4-lanes in concept area with center planting to define neighborhood.
- Everything needed is already shown where/or is included already.
- We need more trees, open spaces, parks and trails in existing neighborhoods. No commercial zoning next to existing residential family homes and existing home owners association designated areas.
- No-significant new development, just low impact large lot residential or senior housing with limited transportation impacts.
- Buses, no commercial.
- Rural anything transit; Metro adds development and subtracts transit.
- Smaller lots with common areas so less yard work for those who want rural character without having to maintain outdoor spaces, i.e. senior living possibly.
- More medium and large sized single family house lots. Too many high density lots.
- More rural lands, less small lots for residential.
- I would like to see sidewalks along South End Rd and an indoor community center for youth activities (no pool) such as volleyball and basketball courts, lacrosse, indoor soccer, etc. Right now we have to utilize our schools and they're not always available not to mention that two closed last year.
- Oregon City does not have the road system to support more growth.
- I still would like to see a concept that includes a road connection through the Metro bluff property to 99E along with an appropriate connection front from South End to the edge of the bluff. While this may be expensive, and contrary to Metro's natural resource group the kind of dense land uses being proposed either needs to be significantly changed or we need better connectivity.
- Two or more higher volume traffic ways toward hwy 213. I know the bluff is a problem but some relief toward Hwy 99E would be good.
- You selected swimming pool, I would want to suggest spray parks. They're a much cheaper alternative.



8) What elements should be included in limited South End mixed-use/neighborhood commercial areas?

Commercial elements	Number or respondents
Café / Coffee Shop	33
Grocery store	17
Live / work	16
Community Service (e.g., child care)	15
Service (e.g., dry cleaner)	14
Bar / Restaurant	10
Multi-family housing	10
Office space	10
Convenience store	9

Other:

- Does not support retail of consequence. Freight/heavy trucks cannot gain reasonable access.
- Library would be very good.
- Keep it neighbor-friendly – English village concept.
- Walking paths, biking.
- Senior options.
- No bar or restaurant.
- Absolutely none (Maybe live/work space).
- Absolutely not a bar, but small family style restaurants would be fine. It needs to be family friendly...we have a downtown littered with bars.
- This area is residential and people have bought homes in this area for that reason. Commercial zoning should not take place near homes that are in areas that are currently residential.
- This area is residential. I have bought a home in the South End area because I did not want to live in a commercial zone. Two of your three concept plans surround my home on three sides with commercial business zones. Commercial zoning should be planned in places where there are no current family and residential homes.
- A small boutique or family-friendly restaurant (e.g. Bugatti's). No bars, no convenience stores, nothing open 24 hours.
- We are only a 5 minute drive from the Hilltop area.
- Library.
- Fitness center.
- Grocery store would be the best fit if it were design more as a general store.
- This should also be as far south as possible on the south edge of the planning area between the power lines.



- Reserve most of the area for open space, natural areas and parks. Density the remaining areas and create a 15-minute community that emphasizes active transportation.

9) What housing choices would you most like to see in South End for the future?

Housing type	Number or respondents
Medium lot single family	29
Large lot single family	28
Live / work space	15
Senior housing	15
Accessory Dwelling Units	10
Attached / townhomes	9
Small lot single family	6
Condominiums	3
Apartments	1

Other:

- Large lot farm, horse riding trails, Christmas trees.
- No condominiums.
- More concentrated housing allows for more green space, think English village.
- Does not support growth.
- Mixture, as planned.
- Allow Accessory Dwelling Units could/should eliminate or substitute for high density housing.
- The buildings should blend with the current character. Small lots are not part of the character of South End.
- I support well planned unit development. The kind of development that mixes housing types in a more natural less traditional way. For instance a small senior housing facility which includes some SFR, some townhomes, a rec center, possibly some neighboring small farm use.
- Reserve most of the area for open space, natural areas and parks. Density the remaining areas and create a 15-minute community that emphasizes active transportation.



10) What types of park facilities area wanted/needed in South End?

Type	Number of respondents
Walking trails	41
Biking trails	33
Nature trails / center	31
Playground equipment	27
Dog park	21
Group picnic areas	16
Ball fields	13
Running track	12
Swimming pool	12
Botanical garden	11
Outdoor amphitheater	9
Skateboard park	8

Other:

- Community gardens.
- Restrooms, horse shoes, chess, maze.
- Fishing area, playgrounds, picnic area, pool, gym, skateboard park, dog park, hiking trails and natural area for wild animals.

11) How should traffic in South End be accommodated?

Proposed Action	Number of respondents
Develop new sidewalks, trails and bike facilities to facilitate non-motorized circulation	33
Create one or two new streets west of South End Road	16
Add a center lane to South End Road	13
Create new street connections across wetlands on the eastern edge of the study area	8
Create a network of local streets west of South End Road	7

Other:

- Must have new connection to Highway 99E.
- Have mass transit.
- Unpaved walking trails.
- Stop building.
- I like the round-a-bout ideas.
- Also provide trail/bike access into the area.
- All of the above as needed and money become available.



12) As we begin developing implementation strategies, how do you think improvements should be funded (developers, City general fund, system development charges, etc.)?

- Developers/system development charges (SDCs). (12)
- Don't know. (3)
- All. (2)
- City general fund. (2)
- Not the public. No taxes. (2)
- Urban Renewal Area. (2)
- Grants. (1)
- Local improvement district/economic improvement district. (1)
- Builders do not live here. Developers need to pay for infrastructure. It cannot be all about them making money and leaving the residents with the consequences.

Other comments

- None of these are workable as far as handling the number of trucks and cars. An alternate route to 99E is needed first.
- Nice work.
- No large commercial core like in Concept B. Prefer to have the southern portion of Concept A and northern portion of Concept C.
- If you are planning to widen South End Road, you need to allow larger setbacks now.
- What is meant by "a slow narrow road along the bluffs to provide public access and views"? Is this intended for people trails or for cars? Where will they park? I can tell you such a road will destroy the animal habitat as well as my own. I live along the bluff.
- How does this plan interface with the Oregon City Transportation Plan...what happens first...Build then implement the transportation issues...and lastly..Who pays for the suggested transportation upgrades?
- Thanks for letting us have input. Keep up the good work. What is the timeline for implementation?
- Commercial zoning should not be designated or take place directly next to existing residences/houses.
- We own two homes in the area. One on South End Court and one on Shelby Rose Drive, therefore; all decisions directly impact us. We enjoy the country feel and the quiet, low-crime neighborhoods. Have you thought of approaching any of the neighborhood associations to meet with them directly rather than only conducting the forums? I am afraid most people either cannot attend or are unaware of any of this planning, as I have spoken with a couple of neighbors. My fear is that this is this Concept Plan is going to be put into place a lot faster and without a majority input. I urge you to market the forums and this plan a lot more to make everyone aware, really put it in their faces. People tend to not get involved unless they are negatively impacted.



South End Concept Plan



- All 3 plans have roads or parks running through my property. We begin building our new house next week on Forest Ridge that will necessitate a change to your concept plans. If you would like more info, please contact me.
- No roads should ever be put in the wetlands.
- Owner of home since Jan 1976 located on Finnegans Way who does not want to see commercial properties adjacent to our greenspace.
- Thank you for all the hard work that everyone is doing to keep us all in the loop and asking for our input.
- Thank you for the great work on this. Press Metro for a roadway connection from South End to 99E. I believe it's a critical need and may be a fatal flaw if this provision is missed.
- I think the plan should encourage housing for retirees - more single floor housing on small lots close to parks and commercial will encourage longer ownership and more stable living situations.
- Were we asked for input on expansion of the UGB? Why are inner pre-2002 areas that have roads and public transit in place not subject to the minimum density requirement?
- I think my ideas were pretty uninformed. No offense, but I wouldn't believe myself. I don't know anything about city planning.
- We live at 10790 S. Navajo Way. Are we in the South End concept plan?
- I like what you have done with my property on 11140 Forest Ridge, next to Allen Ct.
- Too much small lot residential to maintain country feel.
- Need another access point to 99E from South End Road.
- Community gardens
- Walkable community / transit-oriented development
- Natural open space.
- Connection from South End Road to 99E.
- How can we regulate for coffee shop, dentist, limited medical (design standards)?
- McDonald's or sex shops unwanted.
- Seems like a lot of commercial.
- Sidewalks on South End.
- Show us different walkways and sidewalks.
- Noise from South End.
- Congestion at north end of South End Road must be addressed with this plan.
- Too much orange.
- Physically separated bikeway with paved, chip, gravel for less maintenance.
- What about public access on areas marked as green?
- Transit alternatives? E.g., trolley.
- Like the idea of driveway entrance to the school off Salmonberry – relieve congestion at start and end of school day
- South End to 99E capacity must be expanded to take this new traffic.



Forum on the Future of South End **Part 2: Summary Results** July 10, 2013

Introduction

Approximately 100 community members participated in Part 2 of the *Forum on the Future of South End*. The Forum was led by City of Oregon City staff, with assistance from consultant staff and members of the Community Advisory Team (CAT) on June 1, 2013 from 10am to 2pm at John McLoughlin Elementary School. Participants were invited to comment on the draft Concept Plan map and community design elements via recorded dialogue, submitted comment forms and visual preference dot exercises. An online platform was launched June 3rd to compliment the Forum. Participants were able to answer the same questions asked at the event. Twenty-seven surveys were completed.

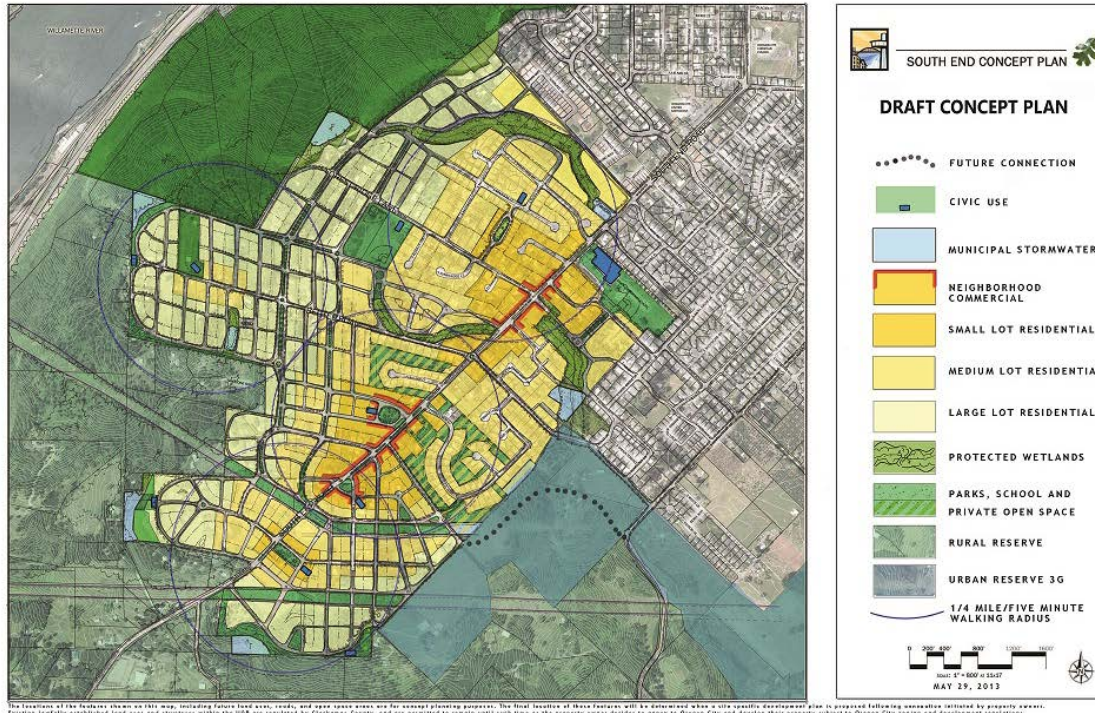
Themes

Several themes emerged from the community comments and will guide final changes to the draft concept plan map.

- New and improved roads should help relieve congestion at McLoughlin Elementary and reduce impacts for adjacent neighbors.
- Concern about the proposed road connecting at south end of Finnegan's Way.
- Less commercial property is needed and southern node should be moved south and/or west to reduce impact on existing residences. Consider utilizing new collector road for some commercial development.
- General concern about increased densities throughout the study area.
- Maintain large lot residential designations along Beutel Road west of South End Road.
- Many questions about property values and the cost and phasing of infrastructure, including roads, sidewalks, sewer and parks.
- Concern about overregulation of design on private property for features such as fences.
- Preference for rural feel of stone and split rail fences and unpaved pathways and off-street bike paths.



Draft Concept Plan Map



Transportation

- Traffic backing up at school, provide options.
- Not happy with idea of connecting street into south corner of Finnegan's Way. Concerned about safety.
- Concerned about traffic at South End and Warner Parrot.
 - Salmonberry already gets lots of traffic
 - Competition with existing businesses
- Partlow Road left turn: adjust stop lights – it's dangerous.
- When will the jurisdiction of South End Road change and improvements be made?
- Visibility improvements at intersections.
- 50 – 100 walkers per day at Forest Ridge Road, but can't get access to park at the end.
- Keep traffic low, slow – green street design.
- Closely look at the efficacy of on-street parking on a major arterial such as South End Road.
- Tree locations on arterials are a concern for maintenance and growing space.
- What happens if congestion creates an emergency on the incident route for 99E?
- How do we improve the gaps between sidewalks until development happens – between developed and undeveloped properties?
- Need financing tool to build collector road before development happens.
- Easements on Finnegan's Terrace HOA property are for property owner access and PGE access. Steep bank below PGE is outside the study area.
- Regarding the road south of and adjacent to school – keep just as access road, no parking and no waiting (fumes, noise to neighbors).



South End Concept Plan



- Streets 10 feet from homes and chain link fence not enough of a buffer (rural character and feel, children, safety).
- Speed bump on Beutel Road near Linda.
- Is it Forest Ridge Lane or Road?
- Speeding on South End Road near schools.
- Consider traffic signal on South End Road to help people enter driveways on South End Road.
- Look at access to McLoughlin and traffic impacts.
- Explore new access south and west from Turquoise Lane to Hwy 99.
- We need a connection from South End Road to 99E.
- Concerned about an increase in traffic down road.
- Roundabout needed at Partlow and South End- why wasn't one done with the new houses there?
- Some could not open concept plan view on online survey.

Neighborhood Commercial

- Less retail on Finnegan's Way.
- Push commercial to newly developable land in south.
- Shift southern node south and/or west using open fields.
 - More traffic off South End Road
 - Better use of collector
- Shift commercial node to the south and more dense development.
- No commercial improvement, no more business needed on South End Road.
- Move southern commercial zone further south or further west into current open fields. Commercial zone should not be in Finnegan's property area. Commercial zone should not be near current residential homes. Moving the commercial off South End Road would make better use of the collector roads. It would also alleviate traffic on South End Road.
- Move commercial zone off Finnegan's property area and move to the open field on the west. Put parking on the western end. Keep the middle green park where it is so that it is aesthetically pleasing to the current residents that live on the east side of South End Road across from the commercial zone.
- Move commercial zone off Finnegan's property area and move to the open area to the southern open fields at the southern concept zone area.
- Use the new western collector road for commercial development.
- Is there enough room to have a three-lane arterial on South End? The residential commercial area near McLoughlin School would be terrible.

Housing

- Beutel Road changed to higher density from previous concepts – why?
- Don't see how large lots with big houses will ever develop or want to redevelop like Oregon City.
- No medium residential along Beutel Road.
- Not in favor of high density housing.



South End Concept Plan



- Large concern about density (housing and transportation) in neighborhoods and commercial areas.

Infrastructure

- Concern for water and sewer rate increases.
- How would this be phased in over time? By sewer expansion? By individual owner initiative?
- How are sewer assessments calculated? By total property value or by frontage only?
 - By City (less likely)
 - By Developer
- What level of fiscal analysis is applied to the concepts to determine whether the level of development is sustainable?
- Annexation and sewer hookups are my main concerns.
- If a sewer goes to or is extended near property, do residents need to hook up to it? If septic tank is not failing?
- What will the price of sewer per unit be?
- Proposal of a structure to be built to provide meeting space for civic, community, and private events much like Pioneer Center in the downtown district; somewhere in the neighborhood that can be identified as a meeting place.

Parks and Open Space

- Private open space in Finnegan's Way is mostly an insurance issue in letting other people onto property.
- Designated parkland – possibly to show as residential so that developers or city would pay residential market value for it. (No objection to the park per se, property value is the concern).
- Finnegan's Terrace to keep greenway.
- Keep the green park on South End Road, near Finnegan's Terrace, to create a buffer between commercial and residential.
- Make sure there are connections between green space areas.
- Move park located on Forest Ridge Lane since this is where future resident's current house is being built.

Other

- What are blue civic uses?
- How does designating my property as a park affect the value of my land? (i.e., residential vs. park).
- Boys / Girls Club in community center areas – somewhere for kids to go.
- No annexation – to keep county rights, keep costs down.
- This looks good. I appreciate the parks, mixed-use placement and open space.
- Concerned about my property value being made into a park and how it will impact the future value. If I sold it to a developer how would that compare against what it would be worth as a park?
- Concerned about plans to eliminate current resident's homes.



- Really like plan: resident is glad that there is a plan to mix both residential (small, medium, and large lots) with some commercial and green areas.
- Concern about size of streets.

Design Elements

Participants were asked to signify the types of design elements they think would best fit into the future of South End. Some opted to add additional comments.

Fences

- All look nice, but do not tell people what to do.
- No regulation.



22 votes



25 votes



13 votes



12 votes



7 votes



5 votes



8 votes



1 vote

Sidewalks and Pathways

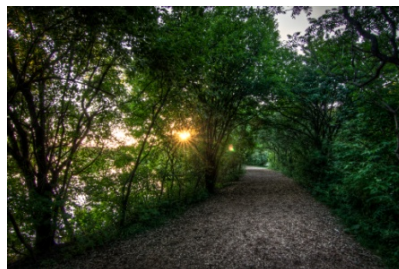
- Would love walking and biking trails extending to large main ones



37 votes



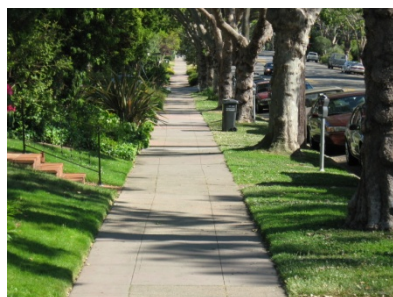
19 votes



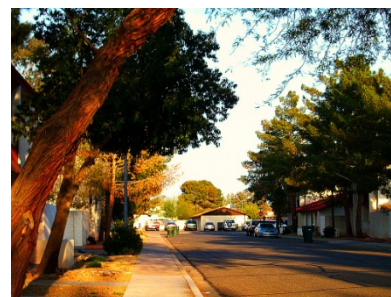
17 votes



11 votes



6 votes



9 votes



Bike Lanes

- Minimum impact to existing houses



26 votes



5 votes



2 votes



12 votes







4 votes






10 votes



Streets

 <p>COMMERCIAL ARTERIAL</p> <p>52' Curb-to-Curb 72' Right-of-Way</p>	<ul style="list-style-type: none"> This is my favorite.
 <p>RESIDENTIAL ARTERIAL</p> <p>50' Curb-to-Curb 74' Right-of-Way</p>	<ul style="list-style-type: none"> Voted for this because of marking, but would like to keep it 2 lanes and not 4 lanes. Well designed for vehicular access and safe bike/pedestrian areas.
 <p>COLLECTOR I</p> <p>48' Curb-to-Curb 72' Right-of-Way</p>	<ul style="list-style-type: none"> Concerned that this design is too big and will make the area less "liveable." All designs seem too wide. Looking at the Oregon City Transportation Plan I do not see how a round-a-bout can be placed at South End Road and Parrish Rd and Parrish Rd be made a Collector Road through to Central Rd as Parrish Rd does not meet the width requirements of a Collector Road.
 <p>COLLECTOR II</p> <p>36' Curb-to-Curb 60' Right-of-Way</p>	<ul style="list-style-type: none"> This one is preferred Likes this one but with parking only on one side, like Warner- Parrott



<p>LOCAL I Shared Lane Markings and No Parking Lanes</p>  <p>20' Curb-to-Curb 44' Right-of-Way</p>	<ul style="list-style-type: none"> • The design without parking will only work when cars are outlawed. Would rather see parking spots than overflow. • Safety first- do not make it a speedway. • Streets with no parking are not a reasonable option for these residential neighborhoods. Too many families with teens will have too many cars, because of their need for work transportation, to assume or enforce the idea that all cars will be located on residential property and not provide some accommodation on the streets.
<p>LOCAL II Shared Lane Markings and Gravel Shoulder Parking Lanes</p>  <p>34' Curb-to-Curb 50' Right-of-Way</p>	<ul style="list-style-type: none"> • Would like improvements of the street design to be simple, affordable, and therefore doable. Do not need massive set-a-sides and impacting considerations for bike and pedestrian infrastructure.
<p>LOCAL III Shared Lane Markings and Gravel Shoulder Parking Lane on One Side</p>  <p>27' Curb-to-Curb 51' Right-of-Way</p>	<ul style="list-style-type: none"> • Preferred with marking • Concern about parking on one side of the road would make it dangerous to cross to get to one's car.

From: Knisely-Levy [hl55@sonic.net]
Sent: Wednesday, November 06, 2013 3:35 PM
To: Pete Walter
Subject: RE: Property on Thayer Road

Thanks for getting back to me. The address is 14566 S Thayer Rd.

Howard

From: Pete Walter [mailto:pwalter@ci.oregon-city.or.us]
Sent: Wednesday, November 06, 2013 3:04 PM
To: 'hl55@sonic.net'
Subject: Property on Thayer Road

Good afternoon,

Thanks for your voice mail. Please can you confirm the address you mentioned on the phone.

I believe it was either 14356 S. Thayer Road or 14356 S. Thayer Road.

In either case, Thayer Road is not within the South End Concept Plan area. The property will not be directly affected by adoption of the concept plan although indirect effects due to the long term development of the area such as traffic, may have an impact on property values.

Please let me know if you have additional questions or concerns.

Pete Walter

Pete Walter, AICP, Associate Planner
pwalter@orcify.org
Community Development Department
Planning Division
221 Molalla Avenue, Ste. 200
Oregon City, Oregon 97045
503-496-1568 Direct
503-722-3789 Front Desk
503-722-3880 Fax
Website: www.orcity.org
Hours: Counter/Walk-in: 8-5 Mon-Thurs.
Friday: Phone, Email and Appointment Only.
Need Zoning and other Tax Lot Information? - Generate a Property Report
Online Mapping is available at OCWebMaps
? Please consider the environment before printing
PUBLIC RECORDS LAW DISCLOSURE: This e-mail is subject to the State Retention Schedule and may be made available to the public.

IRENE TOTH
19310 Tower Hill Drive
Oregon City, OR 97045
503 303-4191

November 12, 2013

Oregon City Planning Division
221 Molalla Avenue, Suite 200
Oregon City, OR 97045

Dear Mr. Walter,

Upon receiving the orange card regarding the plan and code amendments I was totally confused not understanding what exactly this meant. This terrified me after reading the part where this may affect the value of my property. I called my neighbors to see if they also got this card and was told they all did.

I called your office the following day and spoke to you. Thank you for clarifying what the card meant going into detail so I could understand in layman's language. I am however very upset after your explanation as to why is the City of Oregon already making code and plan amendments for the future when the present problems are not being resolved by any one in the committee. We the homeowners are extremely upset to put it mildly, that even though we all shared in our frustration regarding the non-actions the city is taking in resolving the trip hazards problems and are still having them. The city just uses the Codes as an excuse for everything so they will not have to be responsible to pay for any repairs needed. They think "why not let the homeowners pay for everything, they have the money". This is not true, most of us are retirees or disable people like me who live day to day on the little amount we get from Social Security and just want to live this little amount left on this earth in peace and beauty that we found here.

This to me is ridiculous planning for problems years ahead when you can't even repair the ones we face now. To me this is all talk that the commissioners do at these meetings and then get to go home to their nice homes and not worry about the problems we are facing now.

Changes do have to be made, but not before we fix the current issues. I am hoping you will address my letter at the meeting.

Sincerely,

A handwritten signature in black ink, appearing to read 'Irene Toth'. The signature is fluid and cursive, with the first name 'Irene' written in a larger, more prominent script than the last name 'Toth'.

Irene Toth



November 20, 2013

Pete Walter, Associate Planner
221 Molalla Ave, Ste. 200,
Oregon City, OR 97045

Dear Mr. Walter,

Thank you for the opportunity to comment on Oregon City's South End Concept Plan. The following comments are provided on behalf of the Greater Oregon City Watershed Council (GOCWC). The watershed council is a local, voluntary group established under Oregon House Bill 3441 to improve the conditions of watersheds in our local area. The GOCWC geographic area includes the Beaver Creek watershed, which is within the South End planning area.

The GOCWC believes that the protection and enhancement of watersheds and natural areas provide significant public values that increase the quality of life within a community. Natural resource values are particularly important, and can be difficult to achieve, in urban areas where people and development are concentrated. The benefits to the public include cleaner water, cleaner air, better health, improved aesthetics, improved education, as well as economic benefits through increased property values. We would like to see these benefits protected and enhanced in the South End planning area and the Beaver Creek watershed. Our council is therefore encouraged to see that natural resource goals have been included among the vision and values in the concept plan.

The GOCWC supports the City's natural resource goal of protecting streams, trees, wetlands and wildlife habitat through a network of natural areas in the planning area. Best management practices associated with this goal include:

- Protect the Canemah Bluffs Natural Area adjacent to the planning area.
- Provide for the protection of contiguous wetland areas, natural spaces, wildlife corridors, wood lots, meadows and habitat diversity.
- Provide conservation set backs along natural spaces and wetlands.
- Develop low impact design standards that provide effective storm water management to protect water quality and provide erosion control.

- Support native plant protection and restoration in natural areas, including the protection and enhancement of native trees and meadows.
- Include natural areas and native vegetation in new parks and public areas.
- Encourage the maintenance and restoration of natural assemblages of native fishes and aquatic invertebrates in perennial streams such as Beaver Creek and its tributaries.
- Avoid or limit transportation routes that traverse wetlands. If crossings must occur, develop implementation designs that maintain ecosystem function, wildlife passage corridors, and mitigate runoff from road ways.
- Privately-owned natural areas may occur within the planning area. Develop and provide public information resources to assist land owners to protect, restore and enhance privately-owned natural areas.
- Support a healthy community through safe, family-friendly public access including trails, bike routes, and walkable neighborhoods.
- Provide walking and biking access to natural areas and view sites.

We hope that Oregon City recognizes these best management practices in the completion of the South End Plan and associated revisions to zoning codes. The GOCWC encourages the City planning staff to make use of our council members and expertise through the planning process. Again, thank you for the opportunity to comment and we look forward to tracking this plan into the future.

Sincerely,

Cara Lewis
Chair, Greater Oregon City Watershed Council