



Home of the Tualatin River National Wildlife Refuge

CITY COUNCIL MEETING PACKET

FOR

Tuesday, March 20, 2018

**Sherwood City Hall
22560 SW Pine Street
Sherwood, Oregon**

5:30 pm City Council Work Session

7:00 pm City Council Regular Meeting

Executive Session

**Pursuant to ORS 192.660(2)(d), Labor Negotiations
(Following the regular Council meeting)**



Home of the Tualatin River National Wildlife Refuge

5:30 PM WORK SESSION

1. Cedar Creek Trail Project Update (Julia Hajduk, Comm. Dev. Director)
2. Metro UGB Expansion Discussion (Carrie Brennecke, Sr. Planner)

REGULAR SESSION

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. APPROVAL OF AGENDA

5. CONSENT AGENDA

- A. Approval of March 3, 2018 City Council Meeting Minutes (Sylvia Murphy, City Recorder)
- B. Approval of March 6, 2018 City Council Meeting Minutes (Sylvia Murphy, City Recorder)
- C. Approval of March 12, 2018 City Council Meeting Minutes (Sylvia Murphy, City Recorder)
- D. Resolution 2018-024 Appointing Roxanne Zuniga-Blackwood to the Cultural Arts Commission (Maggie Chapin, Arts Center Manager)

6. CITIZEN COMMENTS

7. PRESENTATIONS

- A. Introduction of new Police Captain (Chief Groth)
- B. Proclamation, Egg Hunt for Hope (Mayor)
- C. Proclamation, Arbor Week April 1-7, 2018 (Mayor)
- D. Student Art Show Award Recipients (Maggie Chapin, Arts Center Manager)

8. PUBLIC HEARINGS

- A. Ordinance 2018-003 Adopting minor amendments to the City of Sherwood's 2014 Transportation System Plan Volume 1 and 2, and to the Zoning and Community Development Code, Chapter 16.106 Transportation Facilities (Erika Palmer, Planning Manager) (*Second Reading*)
- B. Ordinance 2018-004 Adopting the Housing Needs Analysis for the 2018 to 2038 planning period and a text amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan (Carrie Brennecke, Senior Planner) (*First Reading*)

AGENDA

SHERWOOD CITY COUNCIL
March 20, 2018

5:30 pm Work Session

7:00 pm City Council Meeting

Executive Session
(ORS 192.660 (2)(d), Labor Negotiations)
(Following the regular Council Mtg.)

Sherwood City Hall
22560 SW Pine Street
Sherwood, OR 97140

9. CITY MANAGER REPORT

10. COUNCIL ANNOUNCEMENTS

11. ADJOURN to EXECUTIVE SESSION

EXECUTIVE SESSION

1. ORS 192.660 (2)(d), Labor Negotiations

2. ADJOURN

How to Find Out What's on the Council Schedule:

City Council meeting materials and agenda are posted to the City web page at www.sherwoodoregon.gov, by the Thursday prior to a Council meeting. Council agendas are also posted at the Sherwood Library/City Hall, the Sherwood YMCA, the Senior Center, and the Sherwood Post Office. Council meeting materials are available at the Sherwood Public Library. **To Schedule a Presentation before Council:** If you would like to schedule a presentation before the City Council, please submit your name, phone number, the subject of your presentation and the date you wish to appear to the City Recorder, 503-625-4246 or murphys@sherwoodoregon.gov



SHERWOOD CITY COUNCIL MEETING MINUTES
22560 SW Pine St., Sherwood, Or
March 3, 2018

WORK SESSION

1. **CALL TO ORDER:** Meeting began at 9:05 am.
2. **COUNCIL PRESENT:** Mayor Lee Weislogel, Council President Sean Garland, Councilors Jennifer Kuiper, Kim Young, Renee Brouse, Russell Griffin and Tim Rosener.
3. **STAFF PRESENT:** City Manager Joseph Gall, Assistant City Manager Tom Pessemier, City Attorney Josh Soper, Finance Director Katie Henry, IT Director Brad Crawford, Public Works Director Craig Sheldon, Community Development Director Julia Hajduk, Administrative Assistant Colleen Resch and City Recorder Sylvia Murphy. Dr. Ryan Hosley.

4. TOPICS:

A. CVI (Core value Index) Workshop

City Manager Gall introduced Dr. Ryan Hosley and explained the topic. Dr. Hosley provided a handout of the CVI survey results (see record, Exhibit A) and presented a power point (see record, Exhibit B). Council discussion occurred.

Council took a lunch break from 12:00-12:30 pm, and a break at 2:20-2:40 pm and adjourned at 3:30 pm.

5. ADJOURN:

The meeting concluded at 3:30 pm.

Attest:

Sylvia Murphy, MMC, City Recorder

Lee Weislogel, Mayor



SHERWOOD CITY COUNCIL MEETING MINUTES
22560 SW Pine St., Sherwood, Or
March 6, 2018

WORK SESSION

1. **CALL TO ORDER:** Mayor Lee Weislogel called the meeting to order at 6:00 pm.
2. **COUNCIL PRESENT:** Mayor Lee Weislogel, Council President Sean Garland, Councilors Jennifer Kuiper, Kim Young, Renee Brouse, Russell Griffin and Tim Rosener.
3. **STAFF PRESENT:** City Manager Joseph Gall, Assistant City Manager Tom Pessemier, City Attorney Josh Soper, Police Chief Jeff Groth, Community Development Director Julia Hajduk, Administrative Assistant Colleen Resch, and City Recorder Sylvia Murphy.
4. **TOPICS:**

A. NW Natural Gas

City Manager Joseph Gall introduced Nina Carlson with Northwest Natural Gas. Ms. Carlson provided a PowerPoint presentation (see record, Exhibit A) and a handout (see record, Exhibit B) and discussed the carbon future. She said Northwest Natural Gas is proactively working on efforts to drive down their carbon footprint. She stated the goal is to have 30 percent carbon savings by 2035. She said their efforts focus on reducing the carbon intensity, driving down customer use, and transportation opportunities. Discussion followed. Mr. Gall informed the Council that the franchise agreement with Northwest Natural Gas needs updating and will be on a future agenda. He referred to Northwest Natural's facility in Sherwood and said he will plan a Council tour in the future.

B. Sherwood Broadband (SBB) Residential Services

IT Director Brad Crawford provided a PowerPoint presentation (see record, Exhibit C) updating the Council on a residential pilot proposal. He said the City has conduit in many neighborhoods around town, most of which is plumbed to the house, and covers close to 600 homes. He said the homes are a mix of single family, attached and detached, condominiums and apartments. He said there are 10 distinct areas around town and a few areas where a vault near a house exists. He said as new subdivisions come on line we would probably include those into our proof of concept as well.

He referred to the presentation as to "why do it", and said for varying reasons, including providing choices for broadband. He said the City currently has two providers, Frontier and Comcast. He said we are proposing a gigabit service, which would be something new. He spoke of the impacts of net neutrality and

said with the City owning this utility we would regulate it ourselves. He referred to increased utilization of SBB assets and resources and said we have a lot of access capacity in our network, with fiber in the ground and internet connectivity. He recapped traffic patterns. He spoke of the risk of having a handful of very large customers and although a loss of any one of them would not be catastrophic, it would hurt a bit and he said with a more diverse revenue stream we could better handle the peaks and valleys that may come over time. He noted the pilot program could determine the “take rate” that could be used in a larger project. He discussed the possibility of extending SBB further into our community for future uses such as smart streets and signs.

He referred to the risks of the residential pilot program that include low take rates, high support costs, inequality, increased labor costs, and competitive pushback. He discussed inequality as those homes that get the service and those that do not.

He referred to the service offering and said he is proposing 250Mb basic plan for \$40 a month, 1Gb plan for \$60 a month, \$150 install fee, no service contract, no equipment fees and the router is included. Discussion followed.

He commented on the costs of the residential pilot program, referred to the core, and said there are little to no costs incurred as the core is already in place. He referred to distribution and said this is what gets the network into the neighborhoods and that is a one time cost when the neighborhood is served. He referred to the access and said those costs are incurred when service is rendered. He commented on access costs and said fiber cable is \$110 and that takes it from a node in the neighborhood to the house, the termination box is \$50, the router is \$188 for a house and \$109 for a multi-dwelling unit, and labor costs are approximately \$150. Discussion followed regarding potential revenue and internet speed.

City Manager Gall said staff is looking for direction from Council if they want to move forward with a residential pilot project. He said staff could draft a resolution in the next month or so directing staff to do the pilot. He stated his concern is that the pilot will be successful and then you have only certain areas that have access to SBB. He said another scenario is preparing for the pilot to be successful and consider the possibility of wiring the whole City. Mr. Crawford said he estimates \$3 million to wire the whole City. Discussion followed about take rates and advertising the pilot. Council said they would like more information regarding the cost to wire the whole City. Mr. Gall said he would work on a resolution to bring before the Council in a few months.

With no other questions, the Mayor adjourned to a regular session.

5. ADJOURN:

The Mayor adjourned the work session at 6:57 pm.

REGULAR SESSION

- 1. CALL TO ORDER:** Mayor Lee Weislogel called the meeting to order at 7:05 pm.
- 2. COUNCIL PRESENT:** Mayor Lee Weislogel, Council President Sean Garland, Councilors Jennifer Kuiper, Kim Young, Renee Brouse, Russell Griffin and Tim Rosener.

3. **STAFF PRESENT:** City Manager Joseph Gall, Assistant City Manager Tom Pessemier, City Attorney Josh Soper, Finance Director Katie Henry, Police Chief Jeff Groth, Community Development Director Julia Hajduk, Public Works Director Craig Sheldon, Planner Matt Straite, Associate Planner Joy Chang, Planning Manager Erika Palmer, Senior Planner Carrie Brennecke, Community Services Director Kristen Switzer, Library Manager Adrienne Doman Calkins, Technical Services Librarian Rachel Seltz, Administrative Assistant Colleen Resch and City Recorder Sylvia Murphy.

The Mayor addressed approval of the agenda and asked for a motion.

4. **APPROVAL OF AGENDA:**

MOTION: FROM COUNCILOR GRIFFIN TO APPROVE THE AGENDA, SECONDED BY COUNCILOR YOUNG. MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

The Mayor addressed the next agenda item and asked for a motion.

5. **CONSENT AGENDA:**

- A. Approval of February 20, 2018 City Council Meeting Minutes (Sylvia Murphy, City Recorder)
- B. Resolution 2018-017 Reappointing Bob Silverforb to the Sherwood Police Advisory Board
- C. Resolution 2018-018 Reappointing Chris West to the Sherwood Police Advisory Board
- D. Resolution 2018-019 Reappointing Diane Foster to the Sherwood Police Advisory Board
- E. Resolution 2018-020 Reappointing Laurie Zwingli to the Sherwood Police Advisory Board
- F. Resolution 2018-021 Reappointing Rich Miller to the Sherwood Police Advisory Board
- G. Resolution 2018-022 Authorizing the City Manager to execute a contract with 3J Consulting to prepare a Community Vision for the Comprehensive Plan Update and prepare a Comprehensive Plan Integration Strategy
- H. Resolution 2018-023 Authorizing staff to apply for a Local Government Grant from the Oregon Parks and Recreation Department for the construction of a Skate Park, Repealing and Replacing Resolution 2018-016

MOTION: FROM COUNCILOR ROSENER TO MOVE ITEM G, RESOLUTION 2018-022 AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH 3J CONSULTING TO PREPARE A COMMUNITY VISION FOR THE COMPREHENSIVE PLAN UPDATE, OFF THE CONSENT AGENDA AND MOVE TO THE REGULAR SESSION AFTER THE PUBLIC HEARINGS. SECONDED BY COUNCILOR YOUNG. MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

MOTION: FROM COUNCIL PRESIDENT GARLAND TO APPROVE THE CONSENT AGENDA AS AMENDED. SECONDED BY COUNCILOR YOUNG. MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

The Mayor addressed the next agenda item.

6. **CITIZEN COMMENTS:** None.

The Mayor addressed the next agenda item.

7. PRESENTATIONS:

A. Recognition of Eagle Scout Award Recipient

The Mayor called forward Lee Whitmore and asked him to explain his Eagle Scout project. Lee stated his project was at the American Legion and he built a circular stone patio in the backyard. He said they used a gravel basing and sand overlay for the base and a circular stone design for the patio. He noted the Legion provided the materials. The Mayor presented Lee with a certificate of achievement.

B. Proclamation, Proclaiming April 2-6, 2018 as National Community Development Week

The Mayor read the proclamation and declared April 2-6 as National Community Development Week. He stated that over the program's history, our community has received a total of \$2,228,482 in Community Development Block Grant (CDBG) funds.

C. Introduction of New City Employee

Library Manager Adrienne Doman Calkins came forward and introduced Library Services Technician Rachel Seltz. Ms. Seltz said her responsibilities include acquisitions and cataloging. She stated she is the liaison for the Library vendors and places orders for new items. She noted she previously worked at the Tigard Library. Council welcomed her to the staff.

Mayor Weislogel addressed the next agenda item and the City Recorder read the public hearing statement. The City Recorder noted that each public hearing item had a different statement that needed to be read.

8. PUBLIC HEARINGS:

A. Ordinance 2018-002 Approving annexation to the City of Sherwood of 84.7 acres (including right of way), comprised of 4 tax lots within the Sherwood High School Concept Plan area and Declaring an Emergency (First Reading and Second Reading)

Planner Matt Straite recapped the staff report and provided a presentation (see record, Exhibit D). He said the project site is located within the Sherwood West Preliminary Concept Plan area. He stated the project site consists of four parcels totaling approximately 82 acres and the current zoning is agricultural and forest, 20 acre minimum in unincorporated Washington County. He said there are four steps required in order for the High School project to move forward and the steps are: Urban Growth Boundary (UGB) expansion, adopt plan amendments and apply zoning, annex the property into the City, and approve a Conditional Use Permit (CUP) or a Site Plan (SP). He said this Ordinance addresses annexation and stated an annexation has three levels of criteria: state, regional and local. He said this proposal is presenting an annexation method available by Senate Bill 1573 that requires 100% of ownership, within the UGB, contiguous to the City, subject to a Comprehensive Plan, and conforms to City zoning. He said the adoption of the Plan Amendment (17-02) added the area to Chapter 8 of the Comprehensive Plan and applied zoning that will take effect upon an annexation. He referred to the regional criteria and said the Metro code requires the site be part of an Urban Plan Area Agreement, requires agreements with Clean Water Services (CWS) and TVF&R, and requires the site to be subject to a Facility Plan. He said the previous adoption of the Title 11 Concept Plan addressed each one of these concerns and this annexation area is completely within the Title 11 Sherwood High School Concept Plan area. He said at the local level there is no code criteria for an

annexation and said the criteria for annexation in Sherwood comes from the Comprehensive Plan. He said the Comprehensive Plan states the development must be encouraged to first happen within the City. He stated the applicant prepared a number of different alternative analysis studies trying to fit the High School within the City and could not find a location that met the criteria. He said the Comprehensive Plan also requires preservation of natural features, access, and a transition between rural and urban uses. He said these requirements were fully addressed in the Title 11 Concept Plan that was previously approved and the Transportation Planning Rule Traffic Study. He stated the annexation that is being proposed conforms to all of these and implements the documents.

He referred to the staff report and the draft Ordinance and said they both made reference to the Metro Ordinance that expanded the UGB area and incorrectly referenced the wrong Metro Ordinance number. He said Ordinance 2018-002 has been revised to reflect the correct Metro Ordinance number (see record, Exhibit E). Matt provided the Council with a document labeled Exhibit E to the Staff Analysis Report which are additional property ownership documents (see Council record, Exhibit F). He said the property ownership has been called into question so staff is providing additional documents for the record. He stated the documents include three different orders confirming immediate possession of the property, which gives the legal authority for the Sherwood School District (SSD) to submit an application on the property. He said the documents also include information that came in with the application materials that is certified by the County and certifies that SSD owns the property. He said the documents also includes two different letters from attorneys that are representing the property owners which both contend that the applicants do not have the legal authority to move forward because they don't have legal ownership of the property. He stated City Attorney Josh Soper has reviewed the information and ruled that the applicant have the legal authority to move forward with the application.

He said staff recommends that the Council hold a public hearing and conduct the first and second reading in a single meeting, which will require a unanimous vote, and adopt the ordinance approving the annexation and declaring an emergency.

With no questions from the Council, the Mayor opened the public hearing.

Brad Kilby, Consulting Planner representing the SSD came forward and provided a presentation (see record, Exhibit G). He said the SSD supports the staff recommendation and he will provide further findings that support the assertion that the SSD is the owner of the property. He noted the subject property is approximately 84.7 acres located west of Sherwood and includes the adjacent right of way to extend utilities and services to the site upon development. He said the SSD is proposing to annex four parcels and the adjacent right of way into the City under Senate Bill 1573, and the SSD has that right, and they are asking Council to support their request. He noted the properties owned by the SSD include: tax map 2S23600201 which is 10 acres by immediate possession, tax map 2S23600207 which is 23.74 acres by general judgement case number 17CV18332, tax map 2S23600200 which is 22.85 acres by general judgement case number 17CV18451, and tax map 2S23600206 which is 19.91 acres and is in contract negotiations with the City to purchase the property. He provided project background and stated the voters approved a bond measure to construct a new High School in November 2016 and the area was brought into the UGB in August 2017. He said the Council approved the refinement plan and the refinements to the Preliminary Concept Plan in December 2017. He said if the annexation is approved the next step is a Conditional Use and Site Plan review in the spring followed by construction in the fall of 2018. He stated the plan is to begin construction as early as June 15 and open the High School in the fall of 2020.

He said Senate Bill 1573 requires 100% of the property owners within the territory proposed for annexation sign a petition. He said the City requires that a petition for annexation be signed by the property owners and verified by Washington County Assessor. He stated ORS 198.770 requires the method of determining validity of landowners signatures. He stated in examining a petition required or permitted to be signed by landowners the County Assessor shall disregard the signature of the person not shown as an owner on the last equalized assessment rule unless prior to certification the County Assessor is furnished with written evidence, satisfactory to the County Assessor, that the signer is a legal representative of the owner, is entitled to be shown as the owner of land on the next assessment rule, is a purchaser of land under a written agreement of sale, or is authorized to sign for and on behalf of any public agency owning the land. He said if a person signing the petition as a landowner appears as owner on the last equalized assessment rule, which the SSD is shown as having title through immediate possession and stipulated judgements, the signature of the person signing shall be counted as is all other owners as shown on the roll of the same parcel of land have signed. He referred to the letters from two different attorneys (see record, Exhibit F) which argue that the SSD is not the legal owner of the property. He said the SSD asserts that they are the legal owner and he provided two orders and a stipulating judgement (see record, Exhibit H). He stated the Council has the right to act on this petition as requested.

He said Senate Bill 1573 also requires the property to be located within the UGB, requires the territory to be subject to an acknowledged Comprehensive Plan of the City, requires at least one lot or parcel within the territory to be contiguous to the City limits or separated from the City limits only by a public right of way, requires conformance to all other requirements of the City's ordinances, and allows the area to be annexed to include any additional territory necessary to locate infrastructure and right of way access for services necessary for development of the territory. He stated these requirements have been met and said on behalf of the SSD he is asking the Council to approve the annexation as requested. He commented on the orders and stipulated judgement he provided and said he did not have the stipulated general judgement for one of the properties and will find the judgement and have it entered into the record.

Council President Garland asked why there is a discrepancy regarding ownership of the properties. Mr. Kilby stated attorneys represent their client's best interest. He stated the County has signed and certified that the SSD is the owner. City Attorney Josh Soper said Senate Bill 1573 did not contemplate this question of who is the owner when they are in this stage of condemnation proceedings. He said the attorneys for the previous property owners will argue that their clients are the owners and the SSD's attorney will argue that they are the owner. He stated the SSD has a good argument that they are the owner and the County Assessor has certified that the SSD is the owner. He said Council should focus on the County Assessors certification.

Council President Garland asked if there are risks to the City with the Council moving forward on the annexation. Mr. Soper said there may be an appeal of the decision from the client's attorneys and the impact on the City would be minimal, as the SSD has indicated that they would defend the case if there is an appeal. Council President Garland asked if there is a timeframe for an appeal. Mr. Soper said it could be anywhere from a few months to years. Mr. Kilby noted if the decision is appealed, they have 21 days from the decision to make an appeal to LUBA.

With no further public testimony, Mayor Weislogel closed the public hearing.

Councilor Rosener said in the interest of the SSD staying on schedule he is willing to move forward to a vote.

Council President Garland stated he is in support of moving forward as quickly as possible with the intended planning of the 2020 High School opening.

With no other Council comments, the following motion was stated.

MOTION: FROM COUNCILOR KUIPER TO READ CAPTION AND ADOPT ORDINANCE 2018-002 APPROVING ANNEXATION TO THE CITY OF SHERWOOD OF 84.7 ACRES (INCLUDING RIGHT OF WAY), COMPRISED OF 4 TAX LOTS WITHIN THE SHERWOOD HIGH SCHOOL CONCEPT PLAN AREA AND DECLARING AN EMERGENCY AS AMENDED, SECONDED BY COUNCILOR BROUSE. MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

Mayor Weislogel addressed the next agenda item and the City Recorder read the public hearing statement.

B. Ordinance 2018-003 Adopting minor amendments to the City of Sherwood's 2014 Transportation System Plan Volume 1 and 2, and to the Zoning and Community Development Code, Chapter 16.106 Transportation Facilities (First Reading)

Planning Manager Erika Palmer recapped the staff report and provided a presentation (see record, Exhibit I). She said the Transportation System Plan (TSP) provides a framework for the long term vision of Sherwood's transportation system including strategies and improvement projects for all modes of travel including auto, pedestrian, bike and transit. She stated the plan needs to be consistent with local, regional and state plans. She discussed the required findings for plan amendments that are located in the Sherwood Development Code and the Comprehensive Plan. She said the proposed amendments provide for consistency within the City's TSP documents and consistency within the zoning code. She stated that currently there are maps in the TSP that are not consistent. She referred to Figure 17 of the TSP, which is the street functional classification map that identifies Brookman Road as an arterial. She stated both the Comprehensive Plan policies and statewide planning goals state that all local plans need to be consistent with local, regional and state plans. She said the proposed amendment ensures that the City's TSP is consistent with Washington County's TSP. She referred to Figure 17 of the adopted TSP and said it is inconsistent with other maps in the TSP. She referred to Figure 1 which shows Brookman Road as a collector and said with the proposed amendment it would make it consistent with Figure 17 and make it shown as an arterial. She referred to Figure 11 in the existing TSP and said Brookman Road is again inconsistent and the western edge is shown as an arterial and then moves to a collector status. She referred to Figure 11 with the proposed amendments that shows Brookman Road as an arterial.

She referred to the project tables and said the Project Title #D5 in the City's TSP is proposed to be called Brookman Road Improvements. She said the proposed amendment removes, Three Lane Collector from the project title. She noted that this amendment does not change any of the project details for the proposed improvements to Brookman Road. She said the proposed improvements include a three lane road, two lanes and a turn lane, and reserving additional right of way for future expansion. She referred to Figure 17.b which was included in the previous TSP but was left out in 2015. She said the map shows where streets and right of ways are planned for more than two lanes.

She commented on Proposed Changes to Chapter 16.106 Transportation Facilities and said staff is proposing a minor edit to change Figure 15 to Figure 17 for consistency. She said staff recommends holding a public hearing and approving Ordinance 2018-003.

Councilor Rosener asked for the difference between a collector and an arterial. Ms. Palmer said an arterial is a larger facility and goes from one major facility to another arterial. She said a collector serves minor local roads. Community Development Director Julia Hajduk used the analogy of streams and referred to a tributary versus a creek versus the Columbia River. She said the Columbia River would be an arterial, the rivers flowing into the Columbia would be collectors, and tributaries would be local streets. She said Sunset Blvd and Tualatin Sherwood Road are both arterial roads. Discussion followed. Councilor Rosener said the proposed amendment would align our TSP with the County's where Brookman Road is shown as an arterial. Ms. Palmer said that is correct.

Councilor Rosener asked for a timeline on possible expansion of Brookman Road. Ms. Palmer said that is a long term vision. Ms. Hajduk said in discussions with the County, in areas of Brookman that have been annexed, the County will require a 3 lane collector and preserve right of way for 5 lanes in the future.

Councilor Griffin asked what is the County's vision for Brookman Road and what will it connect. Ms. Hajduk said the County is preserving the opportunity for it to be an arterial if they do not have the opportunity further south of the City. She said there is not a specific vision for Brookman Road.

Council President Garland clarified that this proposal is aligning with Washington County and is simply a text amendment to our TSP.

With no further questions from the Council, Mayor Weislogel opened the public hearing.

Garrett Stephenson, 1211 SW 5th Avenue, Portland, Oregon 97207 came forward on behalf of Holt Homes. He said Holt Homes supports the Planning Commission's decision and these housekeeping amendments. He stated these amendments will coordinate the street designations for Brookman Road between the City and the County. He noted this amendment is required by a settlement agreement that the City and the County entered into in order to resolve an appeal over an annexation that the City already approved.

With no further public testimony, Mayor Weislogel closed the public hearing.

City Manager Gall reminded the Council that this is a first reading and does not require a vote. Council agreed to continue the Ordinance to a second reading at the next Council meeting, scheduled for March 20.

Mayor Weislogel addressed the next agenda item and the City Recorder read the public hearing statement.

C. Ordinance 2018-004 Approving a Planned Unit Development (PUD) to be known as the Denali Lane Planned Unit Development and Subdivision

Associate Planner Joy Chang recapped the staff report and provided a presentation (see record, Exhibit J). She said the Planning Commission held two hearings on the proposal and has forwarded a recommendation to the Council of approval with conditions. She stated the site is located in southeast Sherwood and is approximately 3.71 acres and rectangular in shape with the exception of a narrow strip that extends to SW Murdock. She said the site is located east of SW Murdock Road and north of SW Denali Lane. She said there is also a narrow strip of land on the southeast corner of the site approximately 210 feet long and 40 feet wide that is proposed to include a public utility easement. She noted the applicant is proposing to subdivide the 3.71 acre parcel into seven lots with various open space tracks. She said the

site is zone Very Low Density Residential (VLDR) Planned Unit Development (PUD) and said the lots range in size from 10,000 square feet to 19,442 square feet. She stated the applicant proposed a PUD in order to utilize the special density allowance of 10,000 square feet minimum lot size. She said the proposed areas of open space comply with PUD requirements. She stated the proposal also includes the construction of a local street through the center of the site to connect SW Ironwood Lane and SW Denali Lane. She said the street connection is consistent with the TSP, Figure 18.

She discussed the site history and said in 2012 the site was approved for a six lot PUD through Ordinance 2012-004 which changed the zoning to include the PUD designation but the applicant was unable to develop the site prior to the expiration of the preliminary approval. She said the site is part of the SE Sherwood Master Plan that was approved through a Resolution in 2006 but not formally adopted into the Comprehensive Plan. She said a piece of the SE Sherwood Master Plan was incorporated into the Sherwood Zoning Community Development Code through Ordinance 2013-003. She noted this parcel was part of the Ken Foster Farm site that has been identified by DEQ as having contaminated soil. She said the property owner is responsible for completing the cleanup for all known contaminations on the site. She stated the applicant is actively working with DEQ to finalize the cleanup and all approvals from DEQ shall be received prior to the applicant proceeding with any development on the subject property. She said a Revised Remedial Action Work Plan dated December 15, 2017 has been reviewed and approved by DEQ. She noted a grading permit for the contamination cleanup was submitted to the City and has been reviewed, approved and issued.

She referred to the review criteria and said they have all been met or can be met as conditioned in the staff report. She stated the applicant has requested a PUD and she said PUDs allow creativity and flexibility in site design review which can't be achieved through strict adherence to existing zoning subdivision standards. She said this could be due to site constraints, resource area, parcel configuration, etc. She said essentially a PUD permits development to meet overall density and land use objectives without being bound by rigid requirements such as setbacks, layouts of lots and streets, and allows developers flexibility in design and the use of open spaces and public areas.

She referred to the Alternative B/C of the SE Sherwood Master Plan and said the proposal is consistent with the recommended plan through the connection of SW Denali Lane. She said the plan recommends a maximum density of 4 dwelling units per net buildable acre and the site can be developed with 10 lots and the applicant is proposing 7 lots which meets the standard. She said the proposed lots are sized between 10,000 square feet and 19,442 square feet and all lots either meet or exceed the 10,000 square feet minimum. She said the proposed development will link with the adjacent residential sites through the installation of sidewalks along both sides and the extended SW Denali Lane. She said a pedestrian path will be installed within the western strip adjacent to Ironwood Lane. She stated with the construction of these features, pedestrian connectivity will be provided from SW Murdock Road along SW Ironwood Lane and through to SW Denali Lane. She stated in addition, there will be a pedestrian path along the west half of the south edge of Tract D and a five foot wide access easement along the rear of Lots 5, 6 and 7 to provide access between Tracts D and E. She said a pathway and usable open space area will be provided within the western strip of the subject's site Track A. She said Track A will contain a paved pathway, landscaping and park benches. She stated the eastern edge of the proposed development will be dedicated as Track C open space to meet the requirements of the Alternative B/C plan. She said additional usable open space requirements will be provided in Tract D containing landscaping, picnic tables, benches and a paved pathway. She said a 5 foot wide public access easement has been provided along the rear of lots 5, 6 and 7 to provide pedestrian access between Tract D and Tract E.

She addressed environmental constraints and said the site is adjacent to identified wetlands and the wetlands and vegetative corridor have been further defined and delineated by an Environmental Consultant and the report was included as part of the applicant's submittal. She said the vegetative corridor and wetlands along the eastern boundary of the development will remain undisturbed in Tract C to be dedicated as open space. She said the very small portion of the vegetative corridor in the 25 feet wide western strip of the site that will be used to construct the pedestrian pathway will be mitigated in Tract C.

She addressed Chapter 16.12.010.A3.b(5) states development must address the following factors and one is the view corridors identified in the SE Sherwood Master Plan. She said the SE Sherwood Master Plan states the height and specific location of buildings along the Denali Lane extension will be important the further east and the lower the height these homes are constructed the less they will block eastward views from the adjacent homes to the west.

She referred to the applicant's map of the view corridor identified by the applicant and overlaid with the SE Sherwood Master Plan. She said it shows the view corridor of the existing home to the west and how the proposed subdivision could affect its view. She said no additional standards or criteria are identified in the Sherwood Zoning and Community Development Code and the SE Sherwood Master Plan. She said to preserve the view corridor, staff and the Planning Commission recommended the following two conditions: Condition E.13 - no structures shall encroach within the view corridor or have roof height no taller than the top grade of the western property line to preserve the view corridor shown on the Alternative B/C of the SE Sherwood Master Plan and Condition B.14 - the applicant shall have revised the view corridor section and cut fill sheet to show the view corridor in more detail including any impediments.

She referred to the site design flexibility request and said the applicant is requesting the front and street yard setbacks for Lots 4 through 7 from 20 feet to 15 feet. She said due to the constraints of the site and the large lot sizes, approval of the setback and modifications are necessary. She said the original request included a reduction of a rear yard setback for Lot 1 from 20 feet to 5 feet, however, it was determined that based on the definition in Chapter 16 the requested rear yard setback is now a side yard setback which meets the setback 5 feet setback standard of the zone. She said the definition for rear yard setback lot line is a lot line which is opposite and most distant from the front lot line provided that irregular and triangular lots the rear lot line shall be deemed a line 10 feet in length within the lot parallel to and at a maximum distance from the front lot line. She said Lot 1 is an irregularly shaped lot and due to topography of the site a shared driveway is proposed for Lots 1, 2 and 3 via access easement on Lot 2. She said the preliminary plan shows the driveway to be 20 feet wide with a fire department turn around easement that is 30 feet wide benefitting all three lots.

She referred to the key concerns identified and conditions by the Planning Commission were related to view corridors, landscape buffering and compatibility with the surrounding community. She commented on landscape buffering and said the code provision shows varied lot sizes are allowed within a minimum lot of 10,000 square feet if it can show that adequate buffering exists adjacent to developed properties with screening, landscaping, roadways or open spaces. She stated the Planning Commission recommended a condition of approval that requires the applicant to demonstrate that a 15 foot wide landscape buffer be provided between the site and adjacent properties outside the SE Sherwood Master Plan area. She said effected properties would be those adjacent to Lots 1, 2, 3 and 4. She commented on the Denali Lane Pattern Book and said the Planning Commission removed the composite paneling as a choice for siding materials and added two additional building design standards addressing compatibility with both existing

and surrounding developments. She said Lots 3 and 4 will not have a building elevation of contemporary or modern styles and a minimum of 3 building elevation styles shall be utilized. She said the latest pattern book submitted by the applicant dated March 2018 did not reflect these two building design standards but did delete the composite paneling and added three additional roofing materials.

She stated four additional written testimonies were received since the staff report was prepared and the City Recorder provided them to the Council via email. She said Roger and Lisa Walker provided testimony questioning view corridor location and clarification on recommended conditions of approval related to the view corridors (see record, Exhibit K). She said Mike and Jen Houghton requested preservation of existing views through CC&R and setback conditions (see record, Exhibit L). She said the applicant provided a letter with the revised Denali Lane Architectural Pattern Book dated March 2018 (see record, Exhibit M) and a letter addressing view buffering, view corridor and a request to waive the second Council hearing (see record, Exhibit N). She noted the applicant's representative Steve Miller with Emerio Design provided a letter addressing specific recommended conditions of approval related to the view corridor and landscape buffering (see record, Exhibit O).

She said staff recommends that the City Council grant approval with conditions of Denali Lane PUD and subdivision. She said due to the timeline of 120 days, which ends on March 9, staff recommends that the Council make a one hearing decision.

Councilor Kuiper referred to Tract C and asked if that would be given to the City. Ms. Chang said Public Works requested that the Home Owners Association (HOA) maintain Tract C. Councilor Kuiper asked if the rest of the properties are under evaluation by the DEQ for removal and confirmation soil sampling. Ms. Chang said that is correct and the DEQ just issued the grading permit for the cleanup. Councilor Kuiper said once the DEQ does a confirmation sampling the DEQ will issue a no further action needed for each of the lots. Ms. Chang said they are requiring that no further action be done prior to any final occupancy.

Councilor Rosener referred to Tract E labeled "Non-Usable Open Space Soil Containment Area" and asked if that was part of the cleanup. Ms. Chang said yes.

Councilor Kuiper referred to Tract E and asked if that would be an onsite containment area that will be capped for chrome soil. Ms. Palmer said most of the soils will be taken off site and said the applicant can address the question of capping.

Councilor Griffin referred to the recommended 15 foot landscape buffer around Lots 1, 2, 3 and 4 and asked if that would affect the 5 foot side yard setback that currently Lot 1 has. Ms. Palmer said yes, it would adjust Lot 1 and move the structure to meet the 15 foot setback. She said the property to the west of Lot 1 is developed with a house. She said Lots 3 and 4 are adjacent to an existing subdivision and the Planning Commission wanted to increase the buffer around those lots. Councilor Griffin asked if Denali is an extension of Denali Lane and the neighborhood is just continuing, why we are drawing a landscape buffer between the two parts of the neighborhood. He asked if distances between Lots 4, 5 and 6 are the same kind of distances in the existing subdivision. Ms. Palmer said that was the Planning Commission's discretion to add extra buffering. Ms. Hajduk said the Planning Commission recommended an adequate buffer of 15 feet because of concerns by adjacent property owners. She said there is a 5 foot setback requirement.

Councilor Griffin asked how far away the existing house to the west is. Ms. Palmer said it is 150 feet away.

Councilor Kuiper said the existing house to the west sits higher by 25 or 30 feet.

Councilor Griffin said the Planning Commission was pretty specific about architectural styles and asked if the styles submitted in the revised pattern book were close to the styles that exist now on Denali Lane. Ms. Chang said the modifications include designs that are similar and include components that are compatible. Ms. Hajduk said the Planning Commission discussed styles and agreed that it is the elements and the features on the home that make it compatible. Ms. Chang said there is a specific requirement that Lots 3 and 4 shall not have a building elevation of contemporary or modern style because they are right next to the existing subdivision. She said the latest pattern book did not identify the conditions regarding the elevation of contemporary and modern styles and the requirement to have a minimum of three building elevation styles for a variety.

Councilor Griffin referred to the view corridor and said it is in the SE Sherwood Master Plan that was not officially adopted or codified by the City but has been recognized and the view corridor effects only the existing house to the west. Ms. Chang said the SE Sherwood Master Plan view corridor only benefitted one parcel. Councilor Griffin asked if trees can be planted in the view corridor. Ms. Palmer said the development code and the SE Sherwood Master Plan do not identify any specific regulations or standards for how the view corridor should be preserved. Ms. Chang said the driving principals from the SE Sherwood Master Plan regarding the view corridor state that the height and specific location of the buildings along the Denali Lane extension will be important the further east and the lower in height these home are constructed the less they will block eastward views of the adjacent home to the west. Councilor Griffin asked if the developer is in line with the City's recommended conditions. Ms. Chang said in order for anyone to develop in the VLDR PUD it says it needs to consider the SE Sherwood Master Plan view corridor. Ms. Chang referred to the Applicant's Map-View Corridor and said the applicant underlaid the SE Sherwood Master Plan and identified the view corridor.

Council President Garland referred to the letter from Roger and Lisa Walker (see record, Exhibit K) that does not agree with the illustrated view corridor on this map.

Councilor Young referred to the letter from Mike and Jen Houghton (see record, Exhibit L) with a concern about the landscape buffer and the height of the trees will block their views. Ms. Chang said the Houghton residence is not part of the SE Sherwood Master Plan so there are no regulations regarding preservation of a view that apply. Councilor Young said the Houghton's are concerned with the condition from the Planning Commission regarding the buffer.

With no further questions from Council, Mayor Weislogel opened the public hearing.

Applicants Steve Miller with Emerio Design and Tim Roth with J.T Roth Construction approached the Council and discussed the recommended conditions of approval from the Planning Commission. Mr. Miller said the property is located in southeast Sherwood within the SE Sherwood Master Plan boundary off Denali Lane. He stated the property is 3.7 acres and they are proposing a 7 lot PUD subdivision which staff has indicated at 3 lots below the maximum density. He said the amenities include a street connection, sidewalks and open space.

The applicants provided a presentation (see record, Exhibit P) and referred to the map illustrating the view corridor. Mr. Miller said they tried to place the homes pursuant to the Alternative B/C plan. He stated there is very little guidance in the Code on where that corridor is and said there is a reference to there being two hillsides within the SE Sherwood Master Plan boundary. He said one is in the middle of the property that is

about 316 feet in elevation and one in the south corner of the Master Plan boundary at about 360 feet elevation. He said through the SE Sherwood Master Plan process the homeowners in the southwest corner of the boundary requested to be removed from the Master Plan process. He referred to the Master Plan and said there is a boundary that includes a large square and it is amended to remove 5 parcels at the southwest corner from being part of the Master Plan.

Mr. Miller commented on the criteria used to prepare that application and he referred to criteria 5 which says the view corridor is identified in the SE Sherwood Master Plan. He referred to the maps in the SE Sherwood Master Plan and said one shows Alternative B/C and the aerial perspective looking to the west. He said as you look at the high point in the center of the Master Plan boundary, that called out one of the view areas. He said as you look straight to the east you see Mt. Hood in the distance. He referred to the subject property to the west and said their view of Mt. Hood is not due east, it is slightly to the northeast. He referred to the Master Plan and the separation between the proposed homes and said as an applicant they are only left with the ability to conclude that this must be the corridor in question. He said in designing their project they pulled the houses down to the south and opened up the north and provided the view corridor per the Master Plan. He said he responded to comments after the Planning Commission meeting that they provided erroneous maps and he responded that they provided the maps that staff provided to them to identify the corridor. He said they based their assumptions based on the best available information provided by the City. He referred to the information in the Code and the Master Plan and said they concluded that this must be the view corridor in question. He said they have attempted to preserve the corridor in question. He commented on the condition of approval recommended by the Planning Commission and said they can't build on Lot 1 because the recommendation is the height of the home can only be as high as the western edge of the elevation of the existing landscape and that would result in a 1 foot tall home. He said if they pull the home site down to the front they can only build a 10 foot tall home and would need to carve into a hill and build expensive retaining walls. He said they moved the homes to the most logical home sites available and are requesting to be able to build on Lot 1 to a height that is no taller than the finished grade of the home to the west. He said the rooftop would be as high as their foundation. He stated that will provide protection of the view corridor for the home to the west.

Mr. Roth referred to the view corridor map and said the condition reads that no structure shall encroach within the view corridor or have a roof height no taller than the top grade of the western property line to preserve the view corridor shown in Alternative B/C. He said the intent was that any portion of the structure that would encroach into the defined view corridor could not exceed the highest grade of the lot. He said their best calculation is the finished floor of the house elevation is 1 foot below the highest grade elevation so any portion of the structure that would encroach into the view corridor could not exceed that 1 foot height and they would have to build outside the view corridor. He said the fact that was pointed out early is that the elevation of their building pad on the house on Lot 1 is 20 feet lower than the building grade of the Walker residence. He stated the Walker residence is driving the view corridor issue and if there was no structure on that property there would not be an argument to finding or preserving a view corridor. He said they looked at the Walker property trying to understand the height issue and said it was not realistic for the Planning Commission to set a height restriction of anything encroaching into the corridor of 1 foot when there is an elevation difference between their finished building grade and the Walker's building grade up of about 20 feet. He stated they agree that the Walker's should have a right to preserve their view and they are defining the view corridor but they should have the opportunity to build higher than 1 foot as long as it does not exceed the height of their building grade. He said the Walker property is 150 feet inset at an elevated grade.

Councilor Kuiper asked how high would the Lot 1 house be. Mr. Roth said it would not exceed 20 feet in height from the finished floor. He said this view corridor is an issue for the Walkers and if it creates a restriction on their property, the same restriction should be applied to the Walkers property to preserve the view for their future or for future property owners. He suggested the Walkers voluntarily be required to request a view corridor easement. Mr. Miller said when the Planning Commission was looking at buffering they were looking at the redevelopment potential of the Walker's property.

Mr. Miller recapped the process and information they relied upon to plan this subdivision and said their proposed PUD is generally consistent with the SE Sherwood Master Plan. He said they are agreeable to not building a home height that would block the Walkers view and are interested in a reasonable conclusion based on the facts. He said the fact is the Walkers are 20 feet higher than their building pads on the lots and the Walkers will be able to look over the home on Lot 1 and have their view.

Mr. Roth noted that the view corridor and buffering have dominated the conversation and they are focusing on those issues.

Mr. Miller referred to the code language on buffering and screening which refers to buffering in the form of screening, landscaping, roadways, or open space. He said it does not talk about increasing required setbacks to create a buffer. He commented on the Shadow Plat that they are required to provide for adjacent properties to show that they are not limiting their redevelopment potential. He said this is a redevelopment plan that takes advantage of all the existing tax lots in the area. He noted there are 5 tax lots which include the Walker's property to get this design. He stated the design has fatal flaws, and said for example the roundabout goes over the Walkers home and down the side of the hill and that would have to be pulled back. He referred to Lot 1 and said they meet the setback requirements. He said because of the shape of Lot 1 the property boundary becomes a side yard which they comply with 5 foot side yard setback and he said they are willing to landscape that and put a good neighbor fence for buffering. He said the reality is they meet the setback requirements and if there were to be lots between their home and ours the property line to the east would be the rear yard setback. He said in the VLDR zone the rear yard setback is 20 foot, so you would have 25 feet from a home on their lot and that is signification and he does not see the need for an additional 10 feet to create a buffer concept. He said instead of just hanging the requirement on Lot 1 the Planning Commission decided to put the requirement along the whole boundary. He stated that is when the neighbor to the south of Lot 4 came forward with concerns that with that large of a setback a narrow and longer home may be built that will impact their view. He said those neighbors are in support of a normal setback.

Mr. Miller said their goal is to bring a plan forward that is easily approved by the City Council that meets all the City codes and requirements. He said they intend to build to the heights that are approved and provide a subdivision that will be an asset to the community with a variety of home sites. He said they appreciate the Planning Commission preserving the rooftops so they can use those designs on Lots 1 and 2 to better preserve the view corridor. He said the addition of the 10 foot buffer is adjusting the setback and he said they have met the setback requirements and this does not effectively address the buffering. He said the buffering is addressed as screening, landscaping, roadways, or open spaces. He referred to the proposed private drive and said the T portion of the hammerhead is a roadway that creates and provides a buffer. He said a screen, landscaping, or fence along the east property line of Lot 1 or even Lot 2 would satisfy the buffering requirements. He noted in the side yard of Lots 3 and 4 a fence would create and satisfy the buffering requirement. He said they object to and are requesting that the buffering condition be removed.

He noted that they need to comply with what the code requires for buffering and what the code allows for setbacks.

Mr. Miller noted that in the original staff report, staff has conditions of approval and speaking to a landscape plan which addresses the concern of buffering. He referred to the letter he provided (see record, Exhibit O) and said on page 3 he noted that staff had conditions of approval B.7 and G.2 and those conditions required that the applicant submit a final landscape plan verified by a landscape professional prior to Final Development Plan approval, and condition of approval G.2 required the applicant to install the landscaping according to the landscape plan or pay a bond for the landscaping. He said they agree with these conditions and will put in a good neighbor fence as well to provide additional screening for the existing homes. He stated that condition of approval to have a 15 foot setback increase is unnecessary and noted there are adequate setbacks in place now. He respectfully requested that condition be removed. He requested the condition of approval recommended by the Planning Commission A.13 be changed. He said it is not well crafted and misses the intent to not have a home encroach on a potential view and said they are agreeing to build above the finished floor elevation 20 feet.

Councilor Rosener referred to the request to conduct the first and second reading tonight and waive a condition of the Planning Commission and said he may need more time to review and he asked City Attorney Josh Soper to explain the 120 day rule. Mr. Soper said the 120 days expire on Friday and if the legislation is not approved tonight and the Council does not have a special meeting between now and Friday the 120 day rule will be violated. Councilor Rosener asked if there is a process for extending the deadline. Mr. Soper said the applicant can agree to extend the 120 days. Councilor Rosener asked if the applicant would be willing to consider extending.

Mr. Miller said at this point they would be willing to see how the rest of the public hearing proceeds and have a chance for rebuttal. He said he understands Councilor Rosener's concern. He added that the way 13.A is crafted and needs to be addressed the applicant may be willing to extend the time period.

Mayor Weislogel thanked the applicant and asked for testimony from those in favor of Ordinance 2018-004.

Jen Houghton, 23524 SW Denali Lane, approached the Council and said her residence is adjacent to Lot 4. She said she attended the Planning Commission meeting and appreciated their attention to the existing homes views and continuity but was concerned with recommendation B.13 which is the landscape buffer. She said they purchased their home mainly for the view from the kitchen window which includes Mount St. Helens and Mount Adams. She said the 15 foot landscape buffer will create a need for the developer to put a long narrow house next to her house that will block her kitchen window view. She said the kitchen window is in the northeast corner of her home which would be right next to lot 4. She referred to her letter to the Council (see record, Exhibit L) and said Exhibit B shows that her home was set back closer to the street so the house next to her has a view as well. She is requesting the same consideration be provided to her with this new development. She asked the Council to consider keeping the current 5 foot side yard setback so that the developer can build a nice size house appropriate with the neighborhood. She requested granting the applicant with the 15 foot front yard set back. She asked that the PUD have language in their CC&Rs that limit the tree height to 15 feet and she said currently all but one of the trees proposed by the applicant grow to significant heights. She requested that the Council not waive the second hearing to allow Council to carefully consider the items.

Mayor Weislogel asked for testimony from those opposed to Ordinance 2018-004.

Roger and Lisa Walker, 23500 SW Murdock Road, came forward and said she was frustrated at the last Planning Commission meeting when they were not allowed to testify. She commented on the view corridor and referred to her letter to the Council (see record, Exhibit K) which states that Lot 2 is in the view corridor and Lot 1 is down the hill. She said she agrees with the 5 foot setback on Lot 1. She stated if she decides to put 3 homes on her 3 acre parcel she will not need the 15 foot buffer. She said her concern is the view corridor and the view of Mt. Hood. She commented on the amount of time they have spent on this issue over the past 12 years. She referred to the last page of her letter which is labeled Exhibit B and said this is what she thought the applicant was showing as the view corridor. She referred to Exhibit C and said line B is directly over Lot 2 and is 100% Mt. Hood view. She said she can barely see Lot 1 from her home. She stated there are a lot of trees between her home and Lot 3. She noted her concern is with Lot 2 for the view. She agrees with what the applicant is proposing for heights for Lot 1 but is concerned with Lot 2. Roger Walker said Mt. Hood is directly east of their home. He commented on the confusion of the view corridor as explained in the Alternative B/C plan and said it is not correct. He referred to comments regarding a view easement and said when they purchased the home 17 years ago that area was supposed to be a PUD that was not buildable because of the 5 acre rule. He said they paid a premium for their view and the premise that homes would not be built below them. He stated they are not opposed to the development and said if the developer can tell them that the home on Lot 2 will have a roofline that is no higher than the foundation of their home they will be in support. He added that he would like verbiage in the HOA that homeowners cannot plant trees in their backyard or between his home that would go beyond the roofline. He said they have a financial, pleasure, and resale stake in this issue. He added that their property is effected by the DEQ and in May they will be digging up their yard and losing trees and understands the nature of the remediation.

Councilor Kuiper asked if the DEQ is paying them for materials removed from their property. Lisa said yes, there is some money. Roger said they are capping some of the hot spots and not removing any dirt because of the shallowness of the dirt. He said they will get a “no further action” letter but will need to disclose the contamination when they go to sell. Lisa said she is concerned that the Council may need more time to read the information.

Councilor Griffin asked about the proposed home on Lot 6 and asked if it is low enough to not affect their view. Lisa said it is just Lot 2. Councilor Griffin clarified that they are not concerned about the setbacks. Lisa said as long as it is built and they have included that the home will not be higher than our grade on Lot 2.

Council President Garland referred to Exhibit C in Lisa’s letter and asked what the elevation on the proposed home on Lot 2 is versus Lot 1. Lisa said the developers may have to address that.

Councilor Griffin asked where she found Exhibit C. Lisa said it is page 11 of the applicant’s application. He asked if she drew the lines A, B and C. Lisa said the lines were already there.

With no further public testimony, the City Recorder stated the applicant has 6:44 minutes remaining for rebuttal.

Mr. Miller referred to the comments and said they are close to an agreement. He referred the Exhibit C (see record, Exhibit K) which is sheet 11 of their plan set. He said the City had some staff changes early on in the application process and he apologized for any confusion in the information. He said they have been trying to respond to with what they were given and provide the best available information for a decision. He

referred to the Walker's comments and said Lot 2 may be the issue and not Lot 1 and neither property owners have a problem with the applicants proposed setbacks. He said if they can strike a 15 foot setback condition of approval out of the decision and leave the landscaping and good neighbor fencing they can meet the intent of the code and provide compatibility with the existing developments. He referred to Lot 2 and asked Mr. Roth to address that.

Mr. Roth said there are two dynamics to building a house on the lot and said one is compliance with the height restrictions the code allows. He said on a perfectly level lot the code allows a maximum of 30 feet but that 30 feet varies as you are dealing with a slope or a side lot. He said the second dynamic is he has always intended to keep those houses at a low profile with a low-pitched roof. He said the other dynamic is the grade difference between what his finished floor elevation is in relationship to what the Walker's finished floor elevation is going to be. He said he does not want to come off a private drive and have an inverted driveway with water flowing down towards the garage. He wants to keep that level and keep the plate elevation somewhere around 10 feet. He stated the grade difference between his finished floor and the Walker's finished floor elevation is somewhere around 20 to 25 feet. He said he is comfortable with putting a restriction on his ridge height based on the elevation of the approach which is the start of the driveway on 20 feet. He noted it is safe to keep the ridge below what the Walker's finished floor elevation is going to be and preserve the view. He said this will apply to all three of the lots as they are down sloping lots and he will have to deal with the same height restriction per the code. He said he assumes that all three homes will be a main floor living with a basement recreation room and bedrooms beneath and he does not intend to go up two floors. He said to preserve the Walker's view specific to Lot 2 he would put a restriction not to exceed 20 feet from the ridge height to the approach elevation.

Council President Garland asked about the difference between setting the guideline at a number versus the way it was conditioned before where it was a variable. He asked why we can't shift the existing condition for Lot 1 to Lot 2. Mr. Roth said the condition on Lot 1 is in referencing a defined view corridor in Alternative B/C and now the Walkers are suggesting is that view corridor is incorrect and is better defined as in alignment with the rooftop on Lot 2.

Councilor Griffin suggested not moving the view corridor and thanked the applicant for their willingness to work on this issue. He asked the applicant if they are willing to toll the clock a few weeks and get together and come back with something revised that fixes the Lot 2 conditions. Mr. Roth said Mr. Miller drafted some language that the ridge height would not exceed the finished floor elevation of the Walker's house.

Council President Garland suggested removing the view corridor language and applying Mr. Miller's proposed language to Lot 2. Mr. Miller said they would not be comfortable with that and reminded the Council that the Planning Commission's recommendation is only allowing them to build to the top of the elevation of their property and that is not practical. Mr. Roth said his insecurity is the unknown of the Walker's finished floor elevation but he is confident that is a number he can work within. Mr. Miller referred to his presentation (see record, Exhibit P) on page 5 and recommended striking Lot 1 and add Lot 2. He said this is saying the height of the home would not exceed the finished floor elevation of the Walker's foundation. He suggested adding 20 feet or their elevation of their home. He said if they could craft such a condition they could agree.

Mr. Gall reminded the Council that it is 9:30 pm and their rules require them to finish the business at hand then make a motion to continue the meeting.

Councilor Kuiper referred to the elevation differences between the foundation of the Lot 2 home and the Walker's home. Mr. Miller said according to google earth the existing elevation of Lot 1 is 332 feet and the Walker's home is at 351 feet. Councilor Griffin asked if the elevation on Lot 2 is the same. Mr. Roth said Lot 2 is possibly 2 feet higher in elevation. Mr. Roth said the 351 feet elevation of the Walker's home is based on the building pad elevation and said they do not know their finished floor elevation but were guessing 20 feet.

Councilor Young referred to the Walker's concerns about tree height not exceeding the roofline and asked if that is manageable. Mr. Roth said they also want the home on Lot 2 to have a Mt. Hood view so they are not planting trees to obstruct the view.

Councilor Brouse referred to the Planning Commission's recommendations and asked what happens when the Council decides to change them. Mr. Soper said there are Planning Commission recommendations, and modifications have been discussed, and the best practice would be to not make the modifications at this meeting and said if the applicant would agree to extend the 120 days in order to bring this back to the March 20 City Council meeting. He said in the interim the time period can be used to develop these changes to the conditions and make sure everyone is in agreement.

Mr. Roth responded that there are time constraints in front of them. He said after the March 10 hearing there will be a 14 day appeal period and they have to submit a plan for review and there is a 30 day plan review period. He said he is concerned that the further this is pushed into the summer he is losing his 3 month window of opportunity to develop this property during the summer.

Council President Garland said there a couple conditions that are close to an agreement. He commented on the Planning Commissions buffer recommendation and he asked Council if that is necessary after hearing testimony from the two neighboring property owners. Council agreed. Council President Garland said the height of Lot 2 and the issue with trees needs to be finalized. Council agreed that the language regarding tree height should be in the HOA.

Mr. Gall suggested the Council take a short recess and allow the applicant to craft language that they can propose to Council. Council agreed. Mr. Soper clarified that the issues that needs to be resolved are the buffer condition, the height of Lot 2, tree issues and the CC&Rs, and striking the issues on Lot 1.

Ms. Hajduk addressed Councilor Brouse's comments toward the Planning Commission and said the Planning Commission understands that new testimony comes up and it is not abnormal for the Council to make modifications based on additional testimony.

Mayor Weislogel called for a recess at 9:44 pm. Mayor Weislogel reconvened the meeting at 10:05 pm.

Ms. Hajduk asked Planning Manager Erika Palmer to read into the record the Planning Commission's recommendations with these specific amendments. Ms. Palmer referred to condition A.13 and said the new condition will read: *No part of any structure on Lot 2 shall exceed the finished floor elevation of the existing structure to the west.* She said conditions B.14 and B.15 will be removed. She said the following condition will be added as A.15 and will read: *The applicant shall submit CC&Rs to restrict tree height on Lots 2, 3, 4, and 5 for a maximum tree height of 15 feet.*

With no further questions from Council, Mayor Weislogel closed the Public Hearing.

With no further discussion, Mayor Weislogel asked for a motion.

MOTION: FROM COUNCILOR GRIFFIN TO READ CAPTION AND ADOPT ORDINANCE 2018-004 WITH THE MODIFICATIONS TO THE PLANNING COMMISSIONS RECOMMENDATIONS BEING A REVISION OF CONDITION A.13, STRIKING B.14, STRIKING B.15, AND AN ADDITIONAL NEW CONDITION REGARDING CC&Rs AND STREET TREES WHICH IS A.15. SECONDED BY COUNCILOR BROUSE. MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

The following motion was stated.

MOTION: FROM MAYOR WEISLOGEL TO EXTEND THE MEETING TO 10:30 PM. SECONDED BY COUNCILOR YOUNG, MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

Mayor Weislogel addressed the next item, which was moved from the Consent Agenda, Item 5.G to be considered after the public hearings.

Resolution 2018-022 Authorizing the City Manager to execute a contract with 3J Consulting to prepare a Community Vision for the Comprehensive Plan Update and prepare a Comprehensive Plan Integration Strategy

Councilor Rosener said he asked to have this removed from the Consent Agenda so the Council could have a conversation about this in the next Council work session. He said he is interested in amending the contract at a future date to make it a wider community visioning process that goes outside the Comprehensive Plan. Ms. Hajduk said staff is willing to discuss this at the next work session and commented on time and said staff would like to begin the Comprehensive Plan update process immediately. She said amending the contract to include wider community visioning at this time will delay the Comprehensive Plan update by a year. Councilor Rosener said he is suggesting amending the contract in the future to do a wider visioning process.

Mr. Soper said unfortunately that is not possible because of the dollar amount of the contract the City has to do a competitive RFP process. He said a wider process would require a new contract. Discussion followed and Council agreed to move forward with the Comprehensive Plan Update.

With no further questions from the Council, Mayor Weislogel asked for a motion.

MOTION: FROM COUNCILOR KUIPER TO APPROVE RESOLUTION 2018-022 AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH 3J CONSULTING TO PREPARE A COMMUNITY VISION FOR THE COMPREHENSIVE PLAN UPDATE AND PREPARE A COMPREHENSIVE PLAN INTEGRATION STRATEGY. SECONDED BY COUNCILOR BROUSE. MOTION PASSED 7:0, ALL PRESENT MEMBERS VOTED IN FAVOR.

Mayor Weislogel addressed the next item on the agenda.

9. CITY MANAGER REPORT:

Mr. Gall said March 13 is Election Day and ballots can be dropped at any election box in the County. He said the Mayor's position and two City Council positions are on the ballot.

Chief Groth announced that Sherwood placed 2nd as the safest cities in Oregon mainly due to the low violent crime rate which is at .67 per 1000. He said Canby placed 1st.

Mayor Weislogel addressed the next item on the agenda.

10. COUNCIL ANNOUNCEMENTS:

Councilor Griffin reported he attended the Parks and Recreation meeting on March 5 and a YMCA representative also attended the meeting.

Council President Garland reported there are openings on the Police Advisory Board and the Planning Commission.

Mayor Weislogel reported he attended the retirement party for WCCLS Director Eva Calcagno.

Councilor Kuiper reported the Refuge is hosting a SWAT analysis on Saturday.

Councilor Griffin reported the Sherwood Foundation for the Arts is performing *Hello Dolly* this summer and auditions are on Thursday and Friday.

Mayor Weislogel addressed the next item on the agenda.

11. ADJOURN:

Mayor Weislogel adjourned the meeting at 10:25 pm and reconvened into an executive session. The Work Session was rescheduled.

EXECUTIVE SESSION

1. **CALL TO ORDER:** Mayor Weislogel called the meeting to order at 10:27 pm.
2. **COUNCIL PRESENT:** Mayor Lee Weislogel, Council President Sean Garland, Councilors Jennifer Kuiper, Kim Young, Renee Brouse, Russell Griffin and Tim Rosener.
3. **STAFF PRESENT:** City Manager Joseph Gall, Assistant City Manager Tom Pessemier, City Attorney Josh Soper, Community Development Director Julia Hajduk, Associate Planner Joy Chang, and Finance Director Katie Henry.
4. **TOPICS:**
 - A. **ORS 192.660 (2)(f)(h), Exempt Public Records and Legal Counsel**

With no other business to address, the Mayor adjourned.

5. ADJOURN:

The Mayor adjourned the Executive Session at 10:45 pm.

Attest:

Sylvia Murphy, MMC, City Recorder

Lee Weislogel, Mayor



CITY COUNCIL MEETING MINUTES
22560 SW Pine St., Sherwood, Or
March 12, 2018

1. **CALL TO ORDER:** Mayor Weislogel called the work session to order at 6:00 pm.
2. **COUNCIL PRESENT:** Mayor Lee Weislogel, Council President Sean Garland, Councilors Kim Young, Renee Brouse, Tim Rosener and Jennifer Kuiper. Councilor Russell Griffin arrived at 6:45 pm.
3. **STAFF PRESENT:** City Manager Joseph Gall, City Attorney Josh Soper and City Recorder Sylvia Murphy.
4. **TOPICS:**

A. Discuss Council Rules

Prior to addressing Council Rules, City Manager Gall asked the Council to provide feedback that he could forward to Dr. Hosley on the CVI (Core Value Index) work session recently held.

City Manager Gall provided the Council with a handout, and reminded the Council that they also received the draft document via email, Rules of Procedure for Council Meetings, (see record, Exhibit A). He said he is open to suggestions and said he received an offer from a few Council members to assist with compiling a final draft. He said this could be done with three or less elected officials as to avoid a quorum, and said he liked the idea, as these are the Council's rules. He said City Attorney Soper was available to assist with the rules.

Mr. Gall addressed each chapter and section and Council discussion occurred. Mr. Gall and City Attorney Soper indicated that staff would produce another draft of the Rules of Procedures based on today's discussion and forward that to the Council, and the members that offered to work on the final draft, for a final drafting of the Rules. Mr. Gall stated, City Attorney Soper would work with the Council on finalizing the document.

Mr. Gall also provided a handout regarding proposed language pertaining to Training, Expenses and Reimbursements (see record, Exhibit B). Discussion followed.

5. ADJOURN

The meeting adjourned at 8:25 pm.

Attest:

Sylvia Murphy, MMC, City Recorder

Lee Weislogel, Mayor

TO: Sherwood City Council

FROM: Maggie Chapin, Center for the Arts Manager
Through: Kristen Switzer, Community Services Director
Joseph Gall, ICMA-CM, City Manager

SUBJECT: Resolution 2018-024, Appointing Roxanne Zuniga-Blackwood to the Cultural Arts Commission

Issue:

Should the City Council appoint Roxanne Zuniga-Blackwood to the Cultural Arts Commission?

Background:

The Cultural Arts Commission currently has up to two vacancies, though its current seven members constitutes a full commission. Council Liaison, Jennifer Kuiper, the Chair of the Commission, Bernie Sims, and staff interviewed Ms. Zuniga-Blackwood on Monday, February 19th, and feel that she would be an excellent addition to the commission. Ms. Zuniga-Blackwood is a local artist, and co-owner of the new ZB Gallery in Old Town Sherwood.

According to Chapter 2.08.010 of the Sherwood Municipal Code, members of the Cultural Arts Commission shall be appointed by the Mayor with consent of the City Council for up to a two year term.

Recommendation:

Staff respectfully recommends City Council approval of Resolution 2018-024, Appointing Roxanne Zuniga-Blackwood to the Cultural Arts Commission.



RESOLUTION 2018-024

APPOINTING ROXANNE ZUNIGA-BLACKWOOD TO THE CULTURAL ARTS COMMISSION

WHEREAS, the Cultural Arts Commission currently has up to two vacancies; and

WHEREAS, Council Liaison Jennifer Kuiper and the Chair of the Cultural Arts Commission, Bernie Sims, with assistance from staff, are recommending Roxanne Zuniga-Blackwood for appointment; and

WHEREAS, according to Chapter 2.08.010 of the Sherwood Municipal Code, members of the Cultural Arts Commission shall be appointed by the Mayor with consent of the City Council for a two year term.

NOW, THEREFORE, THE CITY OF SHERWOOD RESOLVES AS FOLLOWS:

Section 1. The Mayor is authorized to appoint Roxanne Zuniga-Blackwood to a 2 year term, expiring March, 2020.

Section 2. This Resolution shall be effective upon its approval and adoption.

Duly passed by the City Council this 20th of March, 2018.

Lee Weislogel, Mayor

Attest:

Sylvia Murphy, MMC, City Recorder

TO: Sherwood City Council

FROM: Erika Palmer, Planning Manager

THROUGH: Julia Hajduk, Community Development Director

SUBJECT: **Ordinance 2018-003, Adopting minor amendments to the City of Sherwood's 2014 Transportation System Plan volume 1 and 2, and to the Zoning and Community Development Code, Chapter 16.106 Transportation Facilities**
(*Second Reading*)

Issue:

Shall the City Council adopt an ordinance amending the City of Sherwood Transportation Plan (TSP) and Zoning and Community Development Code (SZCDC) to correct figure errors, typographical errors, and to add an additional figure to the TSP?

Summary:

This is a City initiated Transportation System Plan (TSP) and Sherwood Zoning and Community Development Code amendments that will correct inconsistencies with figures and text and also make the plan consistent with Washington County's Transportation System Plan.

The proposed amendments will modify Figure 11, of Volume 1, and Figure 1, of Volume 2 of the TSP. This amendment will reflect Brookman Road as an Arterial as shown in Figure 17, in Volume 1 of the adopted plan making the plan figures consistent within the document and consistent with Washington County's TSP.

The amendment will incorporate a new map in the TSP as Figure 17.b. This map will depict streets where right-of-way is planned for more than two lanes.

The amendment will also modify the Project Name of D5 in both the Project List, adopted 6/17/14, and the Aspirational Project List to "Brookman Road Improvements."

The amendment also corrects a figure number listed in section 16.106, "Transportation Facilities", in the Sherwood Zoning and Community Development Code.

The Planning Commission held a public hearing on February 13, 2018 and forwarded a recommendation of approval to the City Council. The Planning Commission recommendation as amended is attached in Exhibit 1.

Previous Council Action:

Adoption of the Transportation System Plan June 17, 2014.

Council held the first reading of Ordinance 2018-0003 on March 6, 2018. Staff gave a presentation and answered general questions about the amendments, and the Transportation System Plan. One person testified in favor of the amendments.

Financial Impacts:

It is likely that there will be a minimal cost associated with making the Code updates available online and providing informational materials to the public.

Recommendation:

Staff respectfully recommends that the City Council hold the second public hearing and approves Ordinance 2018-003, Adopting minor amendments to the City of Sherwood's 2014 Transportation System Plan volume 1 and 2, and to the Zoning and Community Development Code, Chapter 16.106 Transportation Facilities

Attachments:

Exhibit 1: Planning Commission Recommendation to the City Council.

CITY OF SHERWOOD

Date: February 14, 2018

Staff Report

PA 18-02 –Transportation System Plan & Sherwood Zoning & Community Development Code Regulations Amendments

To: SHERWOOD CITY COUNCIL

From: SHERWOOD PLANNING COMMISSION



Jean Simson, Planning Commission Chair

Proposal Overview: The Planning Commission recommends that the City Council amend figures and text in the Transportation System Plan (TSP) and Chapter 16.106 of the Sherwood Zoning and Community Development Code (SZCDC).

The majority of the amendments in this update seek to:

- 1) Correct errors;
- 2) Provide consistency in the TSP document and local plans (Washington County TSP)
- 3) Deliver an additional map depicting right-of-way information

Planning Commission Public Hearing: The Planning Commission held a public hearing on February 13, 2018 to take testimony and consider the proposed figure and text amendments. The Planning Commission Chair recognized that a lot of public engagement went into the Brookman Concept Plan and that additional transportation planning in this area should be reviewed as part of the update to the Comprehensive Plan. Planning staff indicated that additional funding sources to examine transportation and land uses in the Brookman area are being considered for this necessary work. Two people testified, one in support of the proposed amendments and the other agreed that more planning work will be necessary because the alignment near Ladd Hill road and cross-jurisdictional boundaries with Clackamas County.

After considering the staff report, testimony and public comments, the Commission unanimously voted to recommend approval of the proposed TSP and code amendments.

I. OVERVIEW

- A. Applicant: This is a City initiated amendment to the City Transportation System Plan and Chapter 16 of Sherwood’s Municipal Code, Zoning and Community Development Code
- B. Location: The City’s Transportation System Plan (TSP) is a long term guide for the City’s transportation system, and applies city wide.
- C. Review Type: The proposed plan amendment requires a Type V review, which involves public hearings before the Planning Commission and City Council. The Planning Commission will make a recommendation to the City Council who will make the final decision. Any appeal of the City Council decision would go directly to the Oregon Land Use Board of Appeals.
- D. Public Notice and Hearing: The project is a legislative amendment. Notice of the first evidentiary hearing was provided to the Department of Land Conservation and Development

(DLCD) and Metro on January 9, 2018. Notice of the February 13, 2018 Planning Commission hearing was published in the Tigard Times on January 25, 2018, and in Sherwood Gazette on February 1, 2018. Notice was also posted in 5 public locations around town. Planning staff also sent an informational letter about the proposed amendments to all property owners within the Brookman Concept Plan area on January 19, 2018.

E. Review Criteria:

The required findings for the Plan Amendment are identified in Section 16.80.030 of the Sherwood Zoning and Community Development Code (SZCDC). In addition, the amendment must be consistent with Goals 1, 2 and 12 of the Statewide Planning Goals and Chapter 6 of the Comprehensive Plan.

F. Background:

The TSP went through its last major update in 2014. Since that last update staff has found minor edits needed to figures in both Volume 1 and Volume 2; a minor text change in Volume 2; and a minor text change to Chapter 16.106 Transportation Facilities of the Sherwood Zoning and Community Development Code. These changes are not substantive in nature and are seen as housekeeping edits to the plan and development code for consistency with Washington County's TSP. The proposed amendments include the following:

Sherwood's TSP Volume 1

1. Section 7: "The Plan", Figure 11: This figure is modified to show Brookman as an arterial the entire length, not simply the realigned portion. See Exhibit B-1
 - *Note: This is a housekeeping edit because the Arterial Classification is consistent with the Functional Classification map on Figure 17 and is consistent with the project description for road projects in D5 in Section E of Volume 2. This edit also will make Figure 11 consistent with Washington County's Transportation System Plan.*
2. Section 8: "The Standards", Add Figure 17.b "Streets Where Right of Way Is Planned for More Than 2 Lanes." See Exhibit B-2
 - *Note: This map was in the previous TSP prior to the 2014 update. This map is a visual representation of Figures 16A to 16C (in the 2014 TSP) showing streets where right of way is planned for more than two lanes in Sherwood.*

Sherwood's TSP Volume 2

3. Section D: "Project Options Technical Report", Figure 1: Motor Vehicles Projects: This figure is updated to reflect Brookman as an arterial. See Exhibit B-3
 - *Note: This is a housekeeping edit because when updated the change will be reflective of the newly amended Figure 11 from Volume 1, above and consistent with Washington County's Transportation Plan*
4. Section D: "Project Options Technical Report", Sherwood TSP Update -- Project List, adopted 06/17/14. Project #D5, removed "Three Lane Collector" from project name. The project name is "Brookman Road Improvements". The project details reflect "rebuild road to three lane arterial" instead of a collector. See Exhibit B-4

- *Note: The project detail will match table in Section E (below), which states to build to three lane arterial and reserve right-of-way width for the potential of five lanes.*

5. Section E: “Aspirational Project List”. Remove “Three Lane Collector”. The project name is simply “Brookman Road Improvements”. See Exhibit B-5

Sherwood Zoning & Community Development Code

Chapter 16.106, “Transportation Facilities”: Replace all references to Figure 15 to reflect the correct Figure number for the Street Functional Classification Map, which is Figure 17. See Exhibit C.

II. PUBLIC COMMENTS

The City posted notices of this public hearing in five locations around the city on January 18th, 2018. Notice was also in the Sherwood Gazette as stated above.

III. AGENCY/DEPARTMENTAL COMMENTS

The City requested comments from affected agencies on November 6, 2017. The following information briefly summarizes those comments received. Copies of the full comments are included in the record unless otherwise noted.

Washington County Land Use and Transportation: Formal comments were not submitted from the County on this proposal. However, the city’s Planning Department and the County have coordinated and discussed the proposed changes.

Tualatin Valley Fire and Rescue (TVF&R): Tom Mooney, Deputy Fire Marshal, responded to the e-notice but indicated he had no comments.

IV. APPLICABLE DEVELOPMENT CODE CRITERA

16.80.030 – Review Criteria

A. Text Amendment

An amendment to the text of the Comprehensive Plan shall be based upon a need for such an amendment as identified by the Council or the Commission. Such an amendment shall be consistent with the intent of the adopted Sherwood Comprehensive Plan, and with all other provisions of the Plan, the Transportation System Plan and this Code, and with any applicable State or City statutes and regulations, including this Section.

The last major Transportation System Plan update for Sherwood occurred in 2014. The 2014 update became a priority for the City to address growing transportation needs. That update was funded through an Oregon Department of Transportation -Transportation and Growth Management grant. In addition to addressing local needs, the plan is intended to be consistent with state and regional policies, such as the Oregon Transportation Planning Rule (TPR), Metro’s Regional Transportation Plan (RTP), Metro’s Regional Transportation Functional Plan (RTFP), and the Washington County TSP. After adoption the County expressed concern over inconsistencies in how Brookman Road is identified and requires amendments.

The proposed housekeeping amendments to TSP Volume I, II, and Sherwood's Development Code are intended to provide consistency in references and text between Washington County's TSP, and Sherwood Zoning and Community Development Code.

FINDING: The proposed amendments are needed to be consistent with state and regional policies, specifically Washington County's TSP, and the city's Development Code. Findings of compliance with the RTFP and TPR are provided in the TSP, Volume II, Section H. No plan amendments are proposed that affect compliance with these two regional and state transportation policy documents.

B. Map Amendment

An amendment to the City Zoning Map may be granted, provided that the proposal satisfies all applicable requirements of the adopted Sherwood Comprehensive Plan, the Transportation System Plan and this Code, and that:

- 1. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan and the Transportation System Plan.**
- 2. There is an existing and demonstrable need for the particular uses and zoning proposed, taking into account the importance of such uses to the economy of the City, the existing market demand for any goods or services which such uses will provide, the presence or absence and location of other such uses or similar uses in the area, and the general public good.**
- 3. The proposed amendment is timely, considering the pattern of development in the area, surrounding land uses, any changes which may have occurred in the neighborhood or community to warrant the proposed amendment, and the availability of utilities and services to serve all potential uses in the proposed zoning district.**
- 4. Other lands in the City already zoned for the proposed uses are either unavailable or unsuitable for immediate development due to location, size or other factors.**

The proposed map amendments are intended changes to figures in the city's TSP, not zoning map.

FINDING: Provisions of B2 and B4 above are not applicable to this request. Provisions B1 and B3, are addressed through the adoption of the proposed amendments to the TSP figures which are adopted as part of the city's Comprehensive Plan. Considering this premise, the proposed TSP map amendments would be consistent with the goals and policies of the applicable plans and is timely in order to ensure consistency with Washington County's TSP.

C. Transportation Planning Rule Consistency

1. Review of plan and text amendment applications for effect on transportation facilities. Proposals shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with OAR 660-12-0060 (the TPR). Review is required when a development application includes a proposed amendment to the Comprehensive Plan or changes to land use regulations.

2. "Significant" means that the transportation facility would change the functional classification of an existing or planned transportation facility, change the standards implementing a functional classification, allow types of land use, allow types or levels of land use that would result in levels of travel or access that are inconsistent with the functional classification of a transportation facility, or would reduce the level of service of the facility below the minimum level identified on the Transportation System Plan.

3. Per OAR 660-12-0060, Amendments to the Comprehensive Plan or changes to land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the Transportation System Plan. This shall be accomplished by one of the following:

- a. **Limiting allowed uses to be consistent with the planned function of the transportation facility.**
- b. **Amending the Transportation System Plan to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses.**
- c. **Altering land use designations, densities or design requirements to reduce demand for automobile travel and meet travel needs through other modes.**

The TPR requires that the City inventory the existing system, identify deficiencies that would negatively affect state facilities, and identify alternatives to address those deficiencies. The proposed amendments to the TSP, do not affect the existing inventory of the existing transportation system because they are minor in nature. The proposed amendments intended to maintain and create regional policy consistency between TSP documents and the city's Development Code. For these reasons noted, the proposed amendments are consistent with the TPR.

The City sent notice of the proposed updated TSP and associated amendments to the Comprehensive Plan and Development Code to the State Department of Land Conservation and Development (DLCD), the Oregon Department of Transportation (ODOT) and Washington County. The City has coordinated with Washington County and will continue to coordinate with the County for future planning efforts regarding the function and classification of Brookman Road and the surrounding road network.

FINDING: As noted above, the proposed amendments would make minor changes to the City's TSP for plan consistency. These changes include consistency with functional street classifications, figure numbers, project titles and descriptions. The proposed changes do not significantly change the plan and any of the existing plan policies, therefore the City's TSP document remains consistent with the Transportation Planning Rule.

V. APPLICABLE COMPREHENSIVE PLAN POLICIES

B. GOALS, POLICIES, AND STRATEGIES

Goal 1: Provide a supportive transportation network to the land use plan that provides opportunities for transportation choices and the use of alternative modes serving all neighborhoods and businesses.

Goal 2: Develop a transportation system that is consistent with the City's adopted comprehensive land use plan and with the adopted plans of state, local, and regional jurisdictions.

Goal 3: Establish a clear and objective set of transportation design and development regulations that addresses all elements of the city transportation system and that promote access to and utilization of a multi-modal transportation system.

Goal 4: Develop complementary infrastructure for bicycles and pedestrian facilities to provide a diverse range of transportation choices for city residents.

Goal 5: Provide reliable convenient transit service to Sherwood residents and businesses as well as special transit options for the city's elderly and disabled residents.

Goal 6: Provide a convenient and safe transportation network within and between the Sherwood Old Town (Town Center) and Six Corners area that enables mixed use development and provides multi-modal access to area businesses and residents.

Goal 7: Ensure that efficient and effective freight transportation infrastructure is developed and maintained to support local and regional economic expansion and diversification consistent with City

economic plans and policies.

Goal 8: The Sherwood City’s transportation network will be managed in a manner that ensures the plan is implemented in a timely fashion and is kept up to date with respect to local and regional priorities.

FINDING: The existing goals will remain intact from the last major TSP adoption in 2014. The proposed amendments are not substantive in nature and are intended to provide consistency, removing conflicts within the existing TSP document, the city’s Development Code and Washington County’s TSP.

See Exhibit B and C, for the specific text and map amendments being proposed to the Sherwood TSP and Zoning and Community Development Code.

VI. APPLICABLE STATEWIDE PLANNING GOALS

Goal 1 (Citizen Involvement)

FINDING: Staff utilized the public notice requirements of the Code to notify the public of the proposed plan amendments, and also an information letter about the proposed amendments to property owner’s within the Brookman Concept Plan area. The City’s public notice requirements have been found to comply with Goal 1 and, therefore, this proposal meets Goal 1.

Goal 2 (Land Use Planning)

FINDING: The proposed amendments are being processed in compliance with the local, regional and state requirements. The proposed amendments do not alter any goals and policies in the Comprehensive Plan. The proposed amendments deliver consistency within the TSP, Development Code, and Washington County’s TSP document.

Goal 3 (Agricultural Lands)

Goal 4 (Forest Lands)

Goal 5 (Natural Resources, Scenic and Historic Areas and Open Spaces)

Goal 6 (Air, Water and Land Resources Quality)

Goal 7 (Areas Subject to Natural Hazards)

Goal 8 (Recreational Needs)

FINDING: The Statewide Planning Goals 3-8 do not specifically apply to the proposed plan amendments. In any event, there is no evidence to suggest that the proposal is in conflict with these goals.

Goal 9 (Economic Development)

FINDING: The TSP and its implementation help to support local and regional economic development goals and plans by the provision of efficient and predictable transportation routes. In addition, it ensures orderly and efficient access to planned commercial and employment uses throughout the City.

Goal 10 (Housing)

FINDING: The TSP was developed to account for future residential trips. The implementation of the TSP benefits all of the citizens of Sherwood by ensuring that jobs, services, and residences are accessible through a coordinated transportation system. Further, the TSP identifies needed improvements within the project list to assist the community in prioritizing where and how existing and future development is to be served by the transportation system.

Goal 11 (Public Facilities and Services)

FINDING: The transportation system is inherently one of the community's primary public facilities. The TSP documents existing conditions and future needs for the transportation system within the City, and allows proposed improvements and implementation measures to be tailored to meet those future needs. The TSP assists the City in complying with state and regional rules for the orderly and efficient provision of transportation facilities and services for the community and region.

Goal 12 (Transportation)

As discussed throughout this report, and the supporting documents, the proposed amendments are being proposed are minor in nature and will ensure consistency with Washington County's TPR. The city's TSP will remain consistent with the TPR, which implements Goal 12.

FINDING: Specific findings of Development Code compliance with TPR Section 660-12-0045 are provided in the TSP, Volume II, Section H, which were adopted in 2014. The proposed amendments to the TSP and the Sherwood Zoning and Community Development Code are clearly housekeeping in nature and provide consistency with planning documents. No goals, policies, street classifications, or new regulatory language is being proposed. For these reasons noted, this amendment is consistent with the TPR.

Goal 13 (Energy Conservation)

Goal 14 (Urbanization)

Goal 15 (Willamette River Greenway)

Goal 16 (Estuarine Resources)

Goal 17 (Coastal Shorelands)

Goal 18 (Beaches and Dunes)

Goal 19 (Ocean Resources)

FINDING: The Statewide Planning Goals 13-19 do not specifically apply to these proposed plan amendments; nor do the proposed amendments conflict with the stated goals.

VII. RECOMMENDATION

Based on a review of the applicable code provisions, agency comments and staff review, staff finds that the Plan Amendment is consistent with the applicable criteria and therefore, staff **recommends that the Planning Commission forward a recommendation of APPROVAL** of PA 18-02 amendments to the City of Sherwood Transportation System Plan and Zoning and Community Development Code.

VIII. EXHIBITS

- A. Currently adopted Figures, Tables, of Volume I and II of the Sherwood Transportation Plan and Sherwood Zoning and Community Development Code text.
- B. Proposed amendments to Volume I and Volume II of the Sherwood Transportation Plan
- C. Proposed amendment to Chapter 16.106, Transportation Facilities of the Sherwood Zoning and Community Development Code.
- D. Public testimony, letter from Mike Robinson, Schwabe Williamson & Wyatt, dated February 13, 2018.

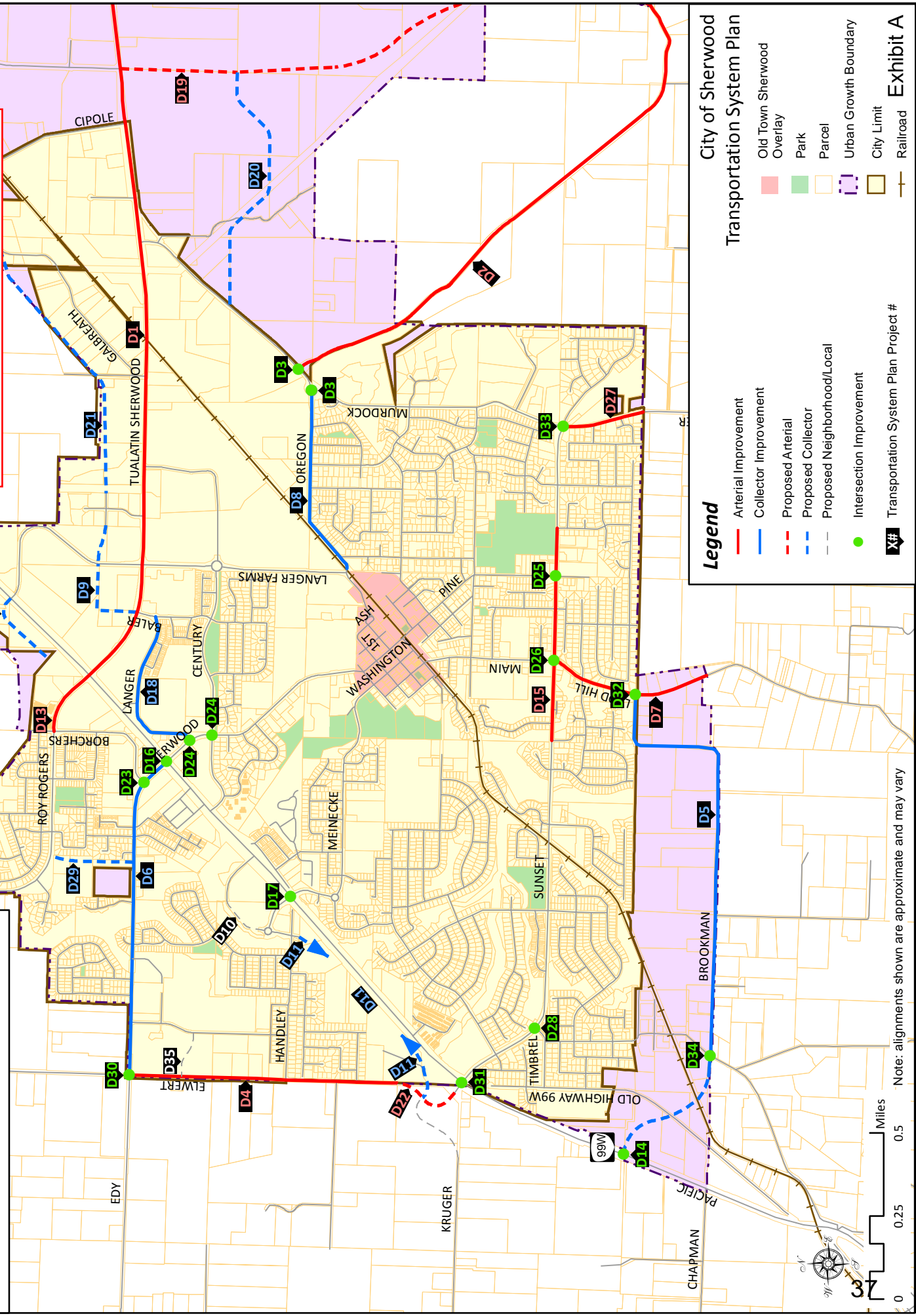
Note: Volumes I and II of the TSP were provided to the Planning Commission under separate cover and can be provided at cost by contacting the Planning Department at (503) 925-2308, can be viewed at City Hall between the hours of 8AM and 5PM, Monday through Friday, or can be found on the project website at:

<https://www.sherwoodoregon.gov/engineering/page/transportation-system-plan-tsp>

Figure 1
Motor Vehicle Projects

DRAFT 04/10/14

Existing Figure 1, Vol 1.
To be amended



City of Sherwood
Transportation System Plan

Legend

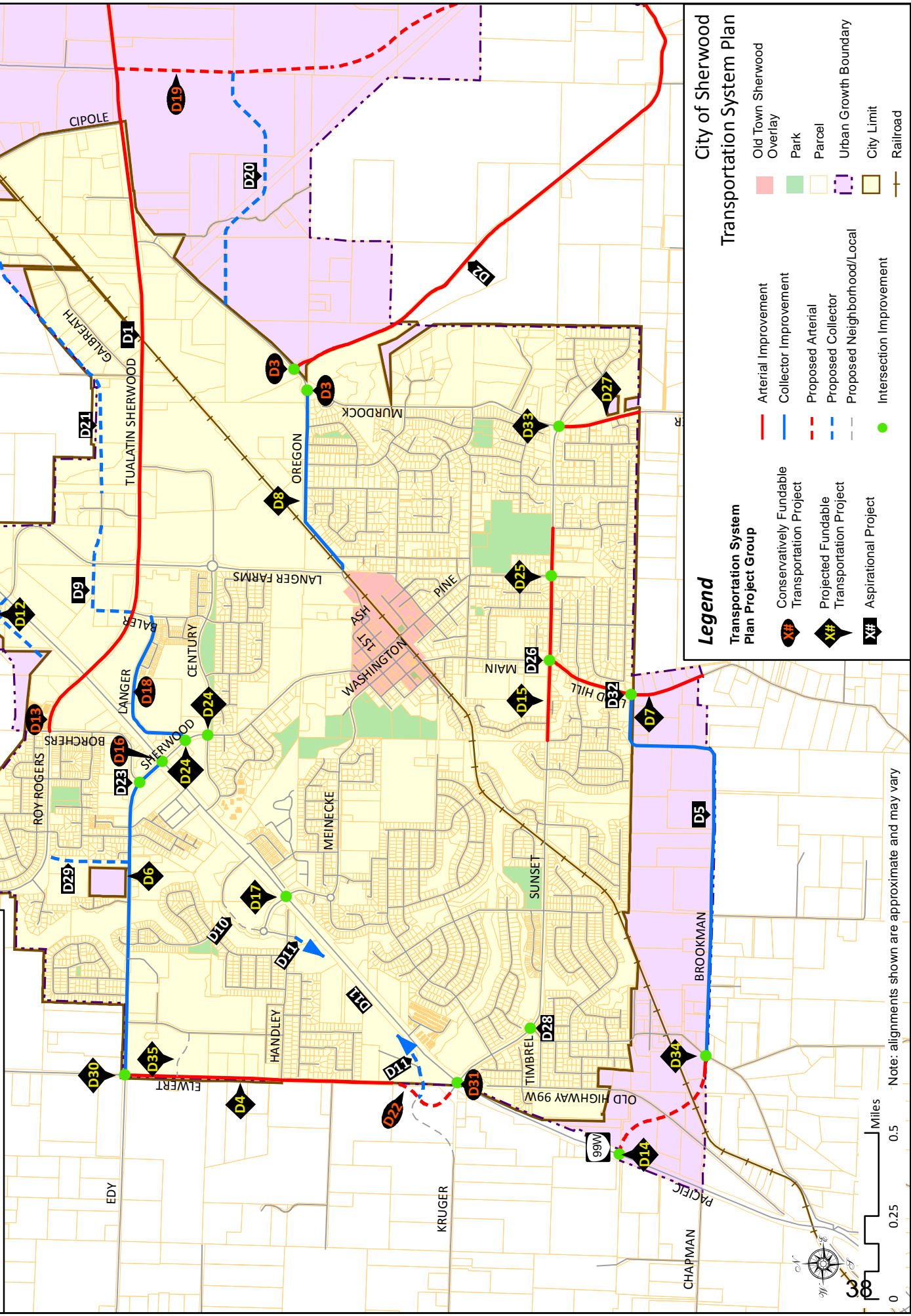
- Arterial Improvement
- Collector Improvement
- - - Proposed Arterial
- - - Proposed Collector
- - - Proposed Neighborhood/Local
- Intersection Improvement
- X# Transportation System Plan Project #
- Old Town Sherwood Overlay
- Park
- Parcel
- Urban Growth Boundary
- City Limit
- Railroad

Note: alignments shown are approximate and may vary



Existing TSP Figure, proposed to be amended.

Figure 11
Motor Vehicle Projects



City of Sherwood
Transportation System Plan

Legend

Transportation System Plan Project Group	Transportation System Plan Project Group
<ul style="list-style-type: none"> Conservatively Fundable Transportation Project Projected Fundable Transportation Project Aspirational Project 	<ul style="list-style-type: none"> Arterial Improvement Collector Improvement Proposed Arterial Proposed Collector Proposed Neighborhood/Local Intersection Improvement
<ul style="list-style-type: none"> Old Town Sherwood Overlay Park Parcel Urban Growth Boundary City Limit Railroad 	

Sherwood TSP Update - Project List - ADOPTED 06/17/14

Existing Project List, to be amended

Legend

- Financially Constrained Group 1 (\$11 million through 2035)
- Financially Constrained Group 2 (\$60 million through 2035)

Project List

Project #	Project Name	Primary Mode	Project Start Point	Project End Point	Project Details	Evaluation Score	Need Reference #
D1	Tualatin-Sherwood Road Improvements - Phase 2	Roads/bridges	Langer Farms Parkway	Teton Avenue	Widen Tualatin-Sherwood Road (from Langer Farms Parkway to Teton Avenue) to five lanes with bike lanes and sidewalks.	2.5	102-107
D2	Tonquin Road Safety Improvements	Roads/bridges	Grahams Ferry Road	Oregon Street	Widen Tonquin Road (from Grahams Ferry Road to Oregon Street) to provide shoulders.	2.5	32, 68
D3	Oregon Intersections Improvements at Murdock and Tonquin	Roads/bridges	Oregon Street/Tonquin Road	Oregon Street/Murdock Road	Install a roundabout at the Tonquin Road/Oregon Street intersection with dual westbound through lanes and a single eastbound through/right lane. Consider creating a "Dumbbell Roundabout" with the Oregon/Murdock roundabout by disallowing the west circulating lane at Oregon/Tonquin and disallowing the east circulating lane at Oregon/Murdock. Add a second westbound approach lane to the Murdock Road Oregon Street roundabout for separated westbound left and westbound through lanes. Keep three lanes on the bridge structure.	3.5	129, 130
D4	Elwert Road Improvements	Roads/bridges	Highway 99W	Edy Road	Upgrade Elwert Road (from Highway 99W to Edy Road) to a three lane arterial with bike lanes and sidewalks. This project may be phased with D30 for design and construction purposes.	3.5	11, 119, 120, 121
D5	Brookman Road Improvements (Three Lane Collector)	Roads/bridges	Highway 99W	Middleton Road	Implement Brookman Road Concept Plan improvements to Brookman Road from Highway 99W to Middleton Road. Major improvements include: rebuild road to a three lane collector facility, and a shared-use path along the north side. The Concept Plan identifies Brookman Road as a collector with the intended function of also providing access to neighborhoods to the north. In addition, reserve right-of-way for the potential widening to five lanes in the event that further refinements to the I-5/99W Connector Plan identify Brookman Road as the Southern Arterial to serve as the primary route for east-west mobility.	1.5	58, 146, 147, 94
					Ungrade Edy Road (from Borcherse Drive to City Limit) to a three lane		5, 10, 55, 56, 122

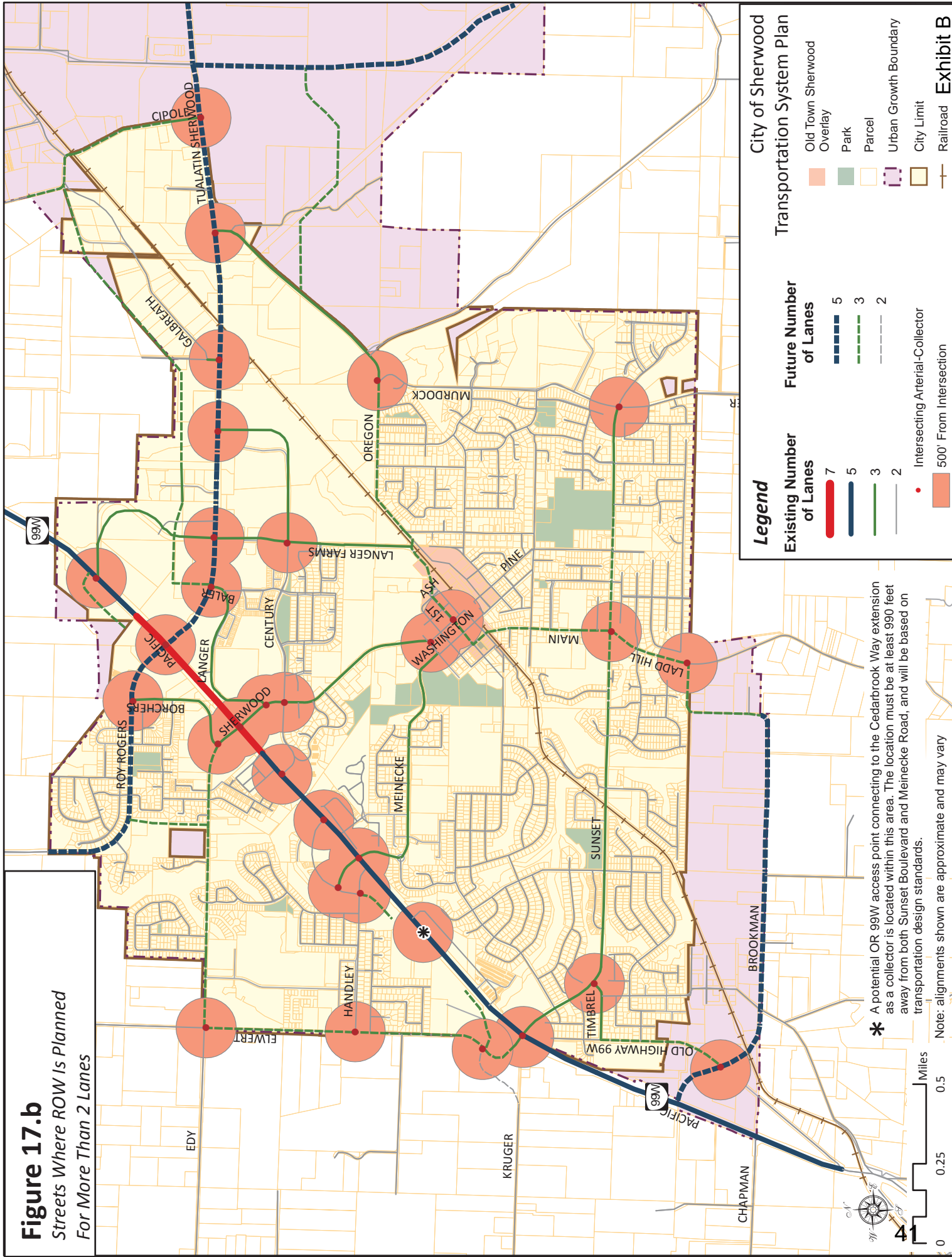
Existing TSP Project List, proposed to be amended

Sherwood TSP Project List

Project #	Project Name	Project Details	Score	Cost	City Cost	Priority
Motor Vehicle Projects						
D1	Tualatin-Sherwood Road Improvements - Phase 2	Widen Tualatin-Sherwood Road (from Langer Farms Parkway to Teton Avenue) to five lanes with bike lanes and sidewalks.	2.5	\$43,042,500	\$0	Long-Term
D2	Tonquin Road Safety Improvements	Widen Tonquin Road (from Grahams Ferry Road to Oregon Street) to provide shoulders.	2.5	\$28,406,000	\$0	Long-Term
D3	Oregon Intersections Improvements at Murdock and Tonquin	Install a roundabout at the Tonquin Road/Oregon Street intersection with dual westbound through lanes and a single eastbound through/right lane. Consider creating a "Dumbbell Roundabout" with the Oregon/Murdock roundabout by disallowing the west circulating lane at Oregon/Tonquin and disallowing the east circulating lane at Oregon/Murdock. Add a second westbound approach lane to the Murdock Road Oregon Street roundabout for separated westbound left and westbound through lanes. Keep three lanes on the bridge structure.	3.5	\$2,945,000	\$1,389,000	Short-Term
D4	Elwert Road Improvements	Upgrade Elwert Road (from Highway 99W to Edy Road) to a three lane arterial with bike lanes and sidewalks. This project may be phased with D30 for design and construction purposes.	3.5	\$11,430,000	\$2,286,000	Medium-Term
D5	Brookman Road Improvements (Three Lane Arterial)	Implement Brookman Road Concept Plan improvements to Brookman Road from Highway 99W to Middleton Road. Major improvements include: rebuild road to a three lane arterial facility, and a shared-use path along the north side. In addition, reserve right-of-way for the potential widening to five lanes in the event that further refinements to the I-5/99W Connector Plan identify Brookman Road as the Southern Arterial to serve as the primary route for east-west mobility.	1.5	\$15,300,000	\$3,060,000	Long-Term
D6	Edy Road Improvements	Upgrade Edy Road (from Borchers Drive to City Limits) to a three lane collector with bike lanes and sidewalks.	4	\$8,760,000	\$8,760,000	Medium-Term

Figure 17.b

Streets Where ROW Is Planned For More Than 2 Lanes



City of Sherwood
Transportation System Plan

Legend

Existing Number of Lanes

- 7 (Red circle)
- 5 (Dark blue circle)
- 3 (Green circle)
- 2 (Light blue circle)

Future Number of Lanes

- 5 (Thick dark blue line)
- 3 (Thick green line)
- 2 (Thick light blue line)

Transportation System Plan

- Old Town Sherwood Overlay (Light purple)
- Park (Green)
- Parcel (Yellow)
- Urban Growth Boundary (Dashed purple line)
- City Limit (Dashed yellow line)
- Railroad (Black line with cross-ticks)

Other Symbols

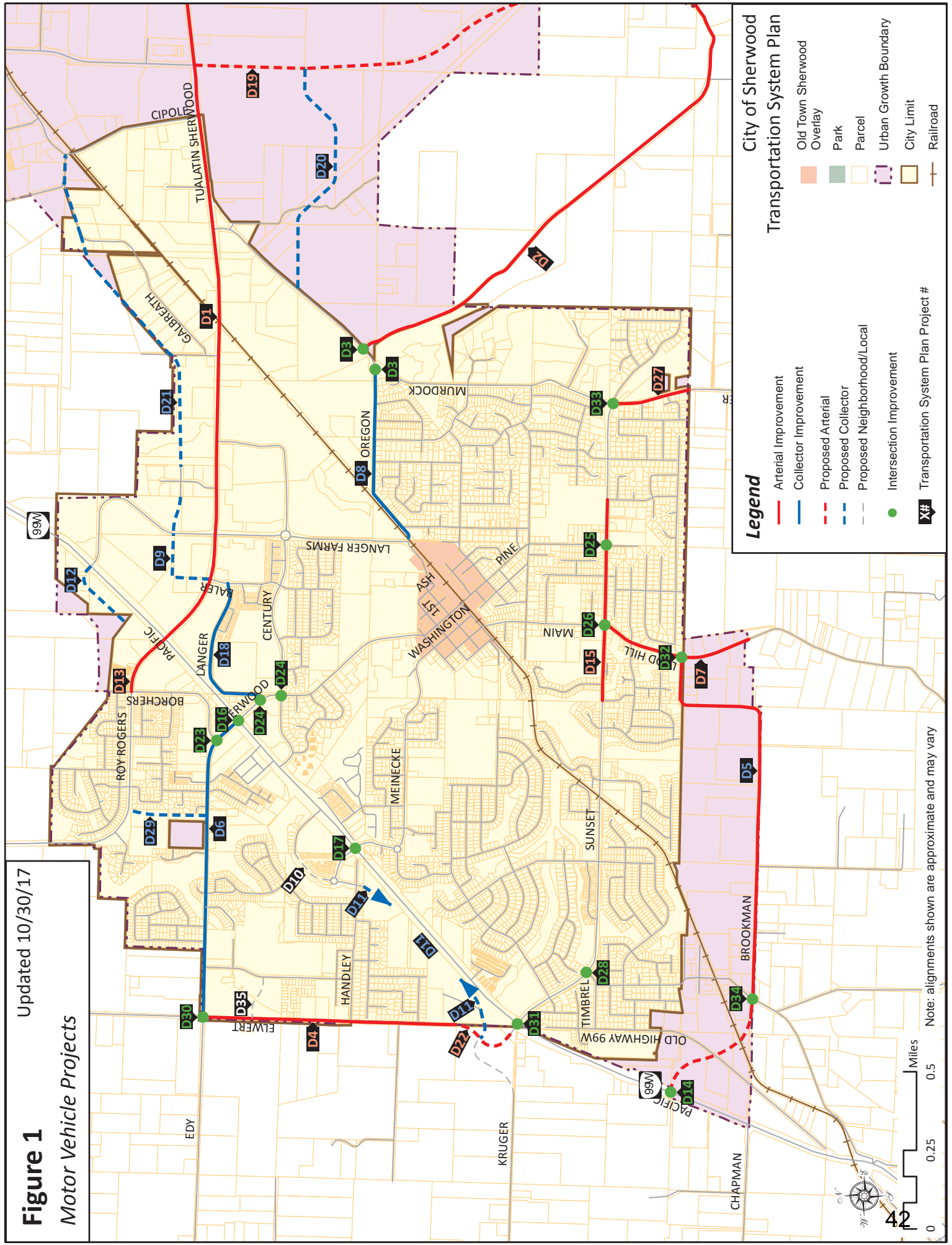
- Intersecting Arterial-Collector (Red dot)
- 500' From Intersection (Red circle)

* A potential OR 99W access point connecting to the Cedarbrook Way extension as a collector is located within this area. The location must be at least 990 feet away from both Sunset Boulevard and Meinecke Road, and will be based on transportation design standards.

Note: alignments shown are approximate and may vary

Figure 1
Motor Vehicle Projects

Updated 10/30/17



City of Sherwood
Transportation System Plan

Legend

- Arterial Improvement
- Collector Improvement
- Proposed Arterial
- Proposed Collector
- Proposed Neighborhood/Local
- Intersection Improvement
- Transportation System Plan Project #

- Old Town Sherwood Overlay
- Park
- Parcel
- Urban Growth Boundary
- City Limit
- Railroad

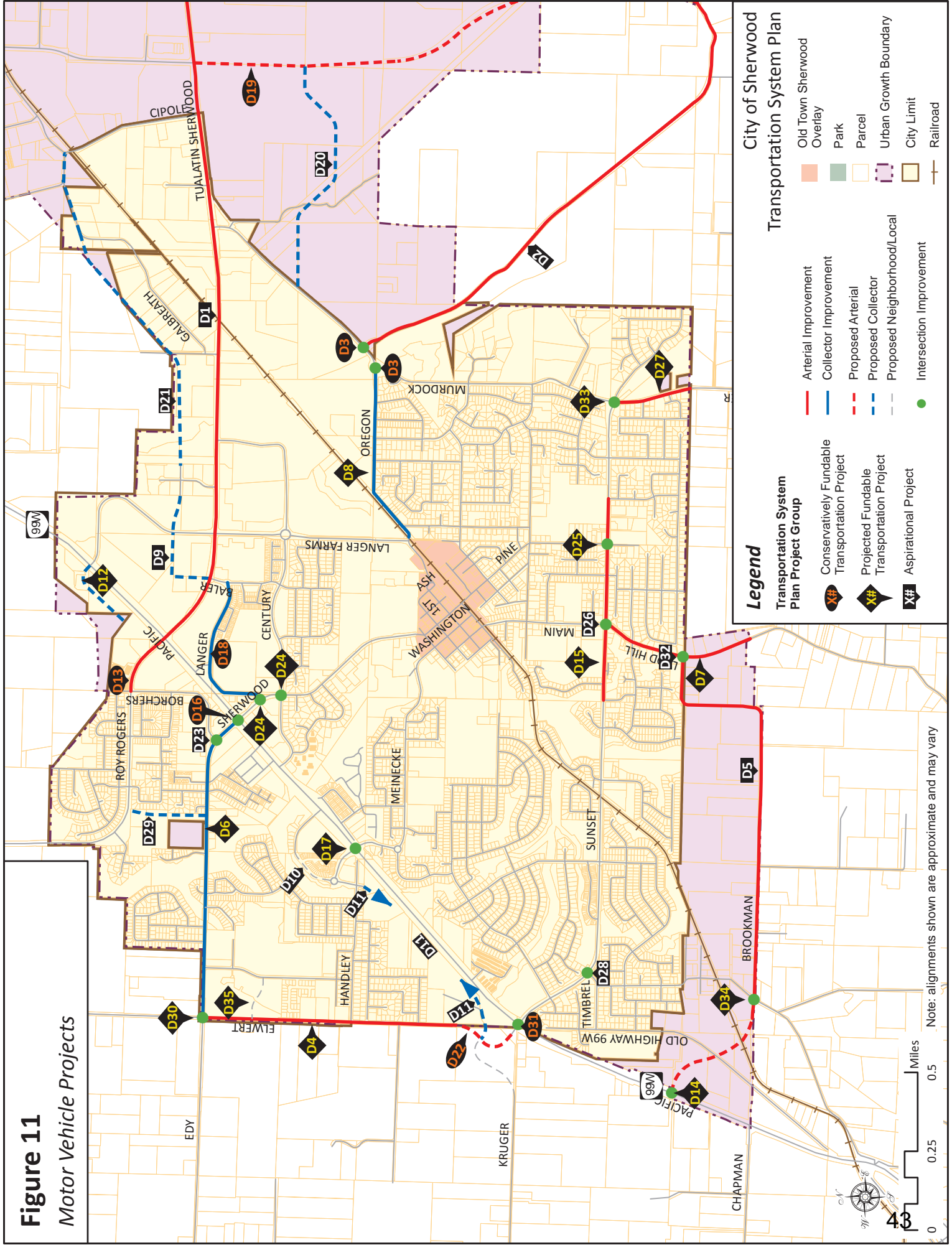
0 0.25 0.5 Miles

Note: alignments shown are approximate and may vary

42

Figure 11

Motor Vehicle Projects



City of Sherwood
Transportation System Plan

Legend

Transportation System Plan Project Group	Transportation System Plan Project Group
<ul style="list-style-type: none"> Conservatively Fundable Transportation Project Projected Fundable Transportation Project Aspirational Project 	<ul style="list-style-type: none"> Arterial Improvement Collector Improvement Proposed Arterial Proposed Collector Proposed Neighborhood/Local Intersection Improvement
<ul style="list-style-type: none"> Old Town Sherwood Overlay Park Parcel Urban Growth Boundary City Limit Railroad 	

Sherwood TSP Update - Project List - ADOPTED 06/17/14

Legend

- Financially Constrained Group 1 (\$11 million through 2035)
- Financially Constrained Group 2 (\$60 million through 2035)

Project List

Project #	Project Name	Primary Mode	Project Start Point	Project End Point	Project Details	Evaluation Score	Need Reference #
D1	Tualatin-Sherwood Road Improvements - Phase 2	Roads/bridges	Langer Farms Parkway	Teton Avenue	Widen Tualatin-Sherwood Road (from Langer Farms Parkway to Teton Avenue) to five lanes with bike lanes and sidewalks.	2.5	102-107
D2	Tonquin Road Safety Improvements	Roads/bridges	Grahams Ferry Road	Oregon Street	Widen Tonquin Road (from Grahams Ferry Road to Oregon Street) to provide shoulders.	2.5	32, 68
D3	Oregon Intersections Improvements at Murdock and Tonquin	Roads/bridges	Oregon Street/Tonquin Road	Oregon Street/Murdock Road	Install a roundabout at the Tonquin Road/Oregon Street intersection with dual westbound through lanes and a single eastbound through/right lane. Consider creating a "Dumbbell Roundabout" with the Oregon/Murdock roundabout by disallowing the west circulating lane at Oregon/Tonquin and disallowing the east circulating lane at Oregon/Murdock. Add a second westbound approach lane to the Murdock Road Oregon Street roundabout for separated westbound left and westbound through lanes. Keep three lanes on the bridge structure.	3.5	129, 130
D4	Elwert Road Improvements	Roads/bridges	Highway 99W	Edy Road	Upgrade Elwert Road (from Highway 99W to Edy Road) to a three lane arterial with bike lanes and sidewalks. This project may be phased with D30 for design and construction purposes.	3.5	11, 119, 120, 121
D5	Brookman Road Improvements	Roads/bridges	Highway 99W	Middleton Road	Implement Brookman Road Concept Plan improvements to Brookman Road from Highway 99W to Middleton Road. Major improvements include: rebuild road to a three lane arterial facility, and a shared-use path along the north side. In addition, reserve right-of-way for the potential widening to five lanes in the event that further refinements to the I-5/99W Connector Plan identify Brookman Road as the Southern Arterial to serve as the primary route for east-west mobility.	1.5	58, 146, 147, 94
D6	Edy Road Improvements	Roads/bridges	Borchers Drive	City Limits	Upgrade Edy Road (from Borchers Drive to City Limits) to a three lane collector with bike lanes and sidewalks.	4.0	5, 10, 55, 56, 122, 123, 124
D7	Ladd Hill Road Improvements	Roads/bridges	Sunset Boulevard	Urban Growth Boundary	Upgrade Ladd Hill Road (from Sunset Boulevard to the Urban Growth Boundary) to a three arterial with bike lanes and sidewalks.	3.5	53, 57, 146
D8	Oregon Street Improvements	Roads/bridges	Murdock Road	Railroad Crossing	Upgrade Oregon Street (from Murdock Road to the railroad crossing) to a three lane collector with sidewalks on south side and a shared-use path on the north side (part of the Ice Age Tonquin Trail).	3.0	28, 29, 49, 130
D9	Baler to Herman Connection	Roads/bridges	Baler Way/Tualatin-Sherwood Road	Herman Road/Langer Farms Parkway	Build a collector roadway, connecting Baler Way at Tualatin-Sherwood Road to the future terminus of the Herman Road at Langer Farms Parkway.	2.0	None (previously planned project)
D10	Cedar Brook Way Extension Segment 1	Roads/bridges	Meinecke Road	Existing Terminus	Extend Cedar Brook Way from its existing terminus to Meinecke Road as a two lane local road.	2.0	None (previously planned project)
D11	Cedar Brook Way Extension Segment 2	Roads/bridges	Handley Street	Highway 99W	Extend Cedar Brook Way from its existing terminus at Handley Street south to Elwert Road as a two lane collector road.	2.0	None (previously planned project)
D12	Extension of Langer Farms Parkway at 99W	Roads/bridges	Highway 99W	-	Extend Langer Farms Parkway from 99W west as a collector road.	2.5	None (previously planned project)
D13	Tualatin-Sherwood Improvements – Phase 1	Roads/bridges	Borchers Drive	Baler Way	Widen Tualatin-Sherwood Road/Roy Rogers Road between Borchers Drive and Baler Way to five lanes. Includes intersection modifications at OR 99W, the Sherwood Market Center, and at Baler Way.	-	None (previously planned project)
D14	Highway 99W/Brookman Traffic Signal and Realignment	Roads/bridges	Highway 99W	Middleton Road	Realign Brookman Road to intersect with Highway 99W approximately 1/4 mile north of its existing intersection; this improvement includes a traffic signal at the realigned intersection with a westbound left and southbound right turn lane, and a grade separated railroad crossing.	5.0	94
D15	Sunset Boulevard Improvements	Roads/bridges	Aldergrove Avenue	Eucalyptus Terrace	Upgrade Sunset Boulevard (from Aldergrove Avenue to Eucalyptus Terrace) to a three lane arterial with sidewalks and bike lanes. Address vertical crest sight distance issues near Pine Street.	3.5	15, 51, 139-143
D16	Edy/Highway 99W Intersection Improvements	Roads/bridges	Edy Road/Highway 99W	-	Restripe the westbound Sherwood Boulevard approach to have a single left turn lane, a single through lane, and a single right turn lane. Eliminate the split phase timing for the side streets, and maintain the existing green time on OR 99W for the northbound and southbound through movements. Add the missing crosswalk to the south approach. Consider implementing P3 alongside this project.	5.5	92
D17	Meinecke/Highway 99W Intersection Improvements	Roads/bridges	Meinecke Road/Highway 99W	-	Change the eastbound and westbound left turn phasing on Meinecke Road from permitted to permitted/protected and maintaining the existing green time on OR 99W for the northbound and southbound through movements. Consider implementing P3 alongside this project.	2.5	99
D18	Langer Drive Improvements	Roads/bridges	Baler Way	Sherwood Boulevard	Construct improvements to Langer Drive between Baler Way and Sherwood Boulevard that are consistent with the Sherwood Town Center Plan. Major improvements include: buffered bike lanes, on-street parking, wider sidewalks, narrower travel lanes, removal of the center turn lane, and landscaping.	4.5	41
D19	124th Avenue Extension	Roads/bridges	Tualatin-Sherwood Road	Tonquin Road	Extend 124th Avenue as an arterial from Tualatin-Sherwood Road to Tonquin Road.	1.0	None (previously planned project)
D20	Tonquin Employment Area East-West Collector	Roads/bridges	Oregon Street	124th Avenue Extension	Build an east-west collector facility between Oregon Street and the 124th Avenue extension in the Tonquin Employment Area; improvement includes a roundabout at the Oregon Street intersection.	2.0	None (previously planned project)
D21	Herman Road Extension	Roads/bridges	Cipole Road	Highway 99W or Langer Farms Parkway	Extend Herman Road from its existing terminus at Cipole Road west to either Highway 99W or Langer Farms Parkway as a two to three lane collector facility.	4.0	None (previously planned project)
D22	Kruger/Elwert Intersection Safety Improvement	Roads/bridges	Kruger Road/Elwert Road	-	Realign Elwert Road to provide more storage at Highway 99W, and realign the Kruger Road intersection to the Cedarbrook extension as a single lane roundabout. Consider implementing D31 with this project.	2.5	153
D23	Edy/Borchers Right-In/Right-Out and Eastbound Lefts	Roads/bridges	Edy Road/Borchers Drive	-	Convert the Edy Road/Borchers Drive intersection to only allow right-in/right-out and eastbound left in; build a roundabout on Edy Road to the west at the south property's existing driveway.	3.0	None (previously planned project)
D24	Sherwood Boulevard Intersection Modifications	Roads/bridges	Sherwood Boulevard/ Langer Drive	Sherwood Boulevard/ Century Drive	Remove the Sherwood Boulevard/Langer Drive traffic signal (allow right-in, right-out, and left-in movements only), and install a traffic signal at the Sherwood Boulevard/Century Drive intersection (add eastbound and westbound left turn lanes).	4.0	126
D25	Sunset/Pine Improvements	Roads/bridges	Sunset Boulevard/ Pine Street	-	Restripe Sunset Boulevard at Pine Street to add eastbound and westbound left turn lanes.	2.5	142

Sherwood TSP Project List

Project #	Project Name	Project Details	Evaluation Score	Estimated Cost	City Cost	Priority
Motor Vehicle Projects						
D1	Tualatin-Sherwood Road Improvements - Phase 2	Widen Tualatin-Sherwood Road (from Langer Farms Parkway to Teton Avenue) to five lanes with bike lanes and sidewalks.	2.5	\$43,042,500	\$0	Long-Term
D2	Tonquin Road Safety Improvements	Widen Tonquin Road (from Grahams Ferry Road to Oregon Street) to provide shoulders.	2.5	\$28,406,000	\$0	Long-Term
D3	Oregon Intersections Improvements at Murdock and Tonquin	Install a roundabout at the Tonquin Road/Oregon Street intersection with dual westbound through lanes and a single eastbound through/right lane. Consider creating a "Dumbbell Roundabout" with the Oregon/Murdock roundabout by disallowing the west circulating lane at Oregon/Tonquin and disallowing the east circulating lane at Oregon/Murdock. Add a second westbound approach lane to the Murdock Road Oregon Street roundabout for separated westbound left and westbound through lanes. Keep three lanes on the bridge structure.	3.5	\$2,945,000	\$1,389,000	Short-Term
D4	Elwert Road Improvements	Upgrade Elwert Road (from Highway 99W to Edy Road) to a three lane arterial with bike lanes and sidewalks. This project may be phased with D30 for design and construction purposes.	3.5	\$11,430,000	\$2,286,000	Medium-Term
D5	Brookman Road Improvements	Implement Brookman Road Concept Plan improvements to Brookman Road from Highway 99W to Middleton Road. Major improvements include: rebuild road to a three lane arterial facility, and a shared-use path along the north side. In addition, reserve right-of-way for the potential widening to five lanes in the event that further refinements to the I-5/99W Connector Plan identify Brookman Road as the Southern Arterial to serve as the primary route for east-west mobility.	1.5	\$15,300,000	\$3,060,000	Long-Term
D6	Edy Road Improvements	Upgrade Edy Road (from Borchers Drive to City Limits) to a three lane collector with bike lanes and sidewalks.	4	\$8,760,000	\$8,760,000	Medium-Term
D7	Ladd Hill Road Improvements	Upgrade Ladd Hill Road (from Sunset Boulevard to the Urban Growth Boundary) to a three arterial with bike lanes and sidewalks.	3.5	\$6,340,000	\$6,340,000	Medium-Term
D8	Oregon Street Improvements	Upgrade Oregon Street (from Murdock Road to the railroad crossing) to a three lane collector with sidewalks on south side and a shared-use path on the north side (part of the Ice Age Tonquin Trail).	3	\$6,712,000	\$6,712,000	Medium-Term
D9	Baler to Herman Connection	Build a collector roadway, connecting Baler Way at Tualatin-Sherwood Road to the future terminus of the Herman Road at Langer Farms Parkway.	2	\$3,802,000	\$3,802,000	Long-Term
D10	Cedar Brook Way Extension Segment 1	Extend Cedar Brook Way from its existing terminus to Meinecke Road as a two lane local road.	2	\$596,000	\$596,000	Long-Term
D11	Cedar Brook Way Extension Segment 2	Extend Cedar Brook Way from its existing terminus at Handley Street south to Elwert Road as a two lane collector road.	2	\$13,000,000	\$13,000,000	Long-Term
D12	Extension of Langer Farms Parkway at 99W	Extend Langer Farms Parkway from 99W west as a collector road.	2.5	\$3,243,000	\$3,243,000	Medium-Term
D13	Tualatin-Sherwood Improvements – Phase 1	Widen Tualatin-Sherwood Road/Roy Rogers Road between Borchers Drive and Baler Way to five lanes. Includes intersection modifications at OR 99W, the Sherwood Market Center, and at Baler Way.	-	\$0	\$0	Committed Funding
D14	Highway 99W/Brookman Traffic Signal and Realignment	Realign Brookman Road to intersect with Highway 99W approximately 1/4 mile north of its existing intersection; this improvement includes a traffic signal at the realigned intersection with a westbound left and southbound right turn lane, and a grade separated railroad crossing.	5	\$7,020,000	\$1,404,000	Medium-Term
D15	Sunset Boulevard Improvements	Upgrade Sunset Boulevard (from Aldergrove Avenue to Eucalyptus Terrace) to a three lane arterial with sidewalks and bike lanes. Address vertical crest sight distance issues near Pine Street.	3.5	\$8,316,000	\$8,316,000	Medium-Term
D16	Edy/Highway 99W Intersection Improvements	Restripe the westbound Sherwood Boulevard approach to have a single left turn lane, a single through lane, and a single right turn lane. Eliminate the split phase timing for the side streets, and maintain the existing green time on OR 99W for the northbound and southbound through movements. Add the missing crosswalk to the south approach. Consider implementing P3 alongside this project.	5.5	\$1,070,000	\$214,000	Short-Term
D17	Meinecke/Highway 99W Intersection Improvements	Change the eastbound and westbound left turn phasing on Meinecke Road from permitted to permitted/protected and maintaining the existing green time on OR 99W for the northbound and southbound through movements. Consider implementing P3 alongside this project.	2.5	\$5,000	\$1,000	Medium-Term
D18	Langer Drive Improvements	Construct improvements to Langer Drive between Baler Way and Sherwood Boulevard that are consistent with the Sherwood Town Center Plan. Major improvements include: buffered bike lanes, on-street parking, wider sidewalks, narrower travel lanes, removal of the center turn lane, and landscaping.	4.5	\$2,000,000	\$2,000,000	Short-Term
D19	124th Avenue Extension	Extend 124th Avenue as an arterial from Tualatin-Sherwood Road to Tonquin Road.	1	\$82,500,000	\$0	Committed Funding
D20	Tonquin Employment Area East-West Collector	Build an east-west collector facility between Oregon Street and the 124th Avenue extension in the Tonquin Employment Area; improvement includes a roundabout at the Oregon Street intersection.	2	\$6,400,000	\$6,400,000	Long-Term
D21	Herman Road Extension	Extend Herman Road from its existing terminus at Cipole Road west to either Highway 99W or Langer Farms Parkway as a two to three lane collector facility.	4	\$8,190,000	\$8,190,000	Long-Term
D22	Kruger/Elwert Intersection Safety Improvement	Realign Elwert Road to provide more storage at Highway 99W, and realign the Kruger Road intersection to the Cedarbrook extension as a single lane roundabout. Consider implementing D31 with this project.	2.5	\$1,550,000	\$0	Committed Funding
D23	Edy/Borchers Right-In/Right-Out and Eastbound Lefts	Convert the Edy Road/Borchers Drive intersection to only allow right-in/right-out and eastbound left in; build a roundabout on Edy Road to the west at the south property's existing driveway.	3	\$2,000,000	\$2,000,000	Long-Term
D24	Sherwood Boulevard Intersection Modifications	Remove the Sherwood Boulevard/Langer Drive traffic signal (allow right-in, right-out, and left-in movements only), and install a traffic signal at the Sherwood Boulevard/Century Drive intersection (add eastbound and westbound left turn lanes).	4	\$900,000	\$900,000	Medium-Term
D25	Sunset/Pine Improvements	Restripe Sunset Boulevard at Pine Street to add eastbound and westbound left turn lanes.	2.5	\$6,000	\$6,000	Medium-Term
D26	Sunset/Main Traffic Control Enhancement	Install a traffic signal at the Sunset Boulevard/Main Street intersection	4	\$250,000	\$250,000	Long-Term
D27	Baker Road Improvements	Upgrade Baker Road (from Sunset Boulevard to the urban growth boundary) to a two lane arterial with bike lanes and sidewalks.	3	\$779,000	\$779,000	Medium-Term
D28	Sunset/Timbrel Traffic Control Enhancement	Install a single lane roundabout at the Sunset Boulevard/Timbrel Lane intersection.	2.5	\$300,000	\$300,000	Long-Term
D29	Edy to Roy Rogers Collector Roadway	Build a collector roadway from Edy Road to Roy Rogers Road, between Cedarview Way and Lynnly Way.	2.5	\$3,400,000	\$3,400,000	Long-Term
D30	Elwert/Edy Roundabout	Install a single lane roundabout at the Elwert Road/Edy Road intersection. This project may be phased with D4 for design and construction purposes.	2.5	\$1,500,000	\$750,000	Medium-Term

Existing code language, to be amended

Chapter 16.106 - TRANSPORTATION FACILITIES

16.106.010 - Generally

A. Creation

Public streets shall be created in accordance with provisions of this Chapter. Except as otherwise provided, all street improvements and rights-of-way shall conform to standards for the City's functional street classification, as shown on the Transportation System Plan (TSP) Map (Figure 15) and other applicable City standards. The following table depicts the guidelines for the street characteristics.

16.106.020 - Required Improvements

A. Generally

Except as otherwise provided, all developments containing or abutting an existing or proposed street, that is either unimproved or substandard in right-of-way width or improvement, shall dedicate the necessary right-of-way prior to the issuance of building permits and/or complete acceptable improvements prior to issuance of occupancy permits. Right-of-way requirements are based on functional classification of the street network as established in the Transportation System Plan, Figure 15.

PROPOSED CHANGES TO CHAPTER 16.106 TRANSPORTATION FACILITIES

~~STRIKEOUT~~ = DELETED TEXT

BOLD UNDERLINE = NEW TEXT

Chapter 16.106 - TRANSPORTATION FACILITIES

16.106.010 - Generally

A. Creation

Public streets shall be created in accordance with provisions of this Chapter. Except as otherwise provided, all street improvements and rights-of-way shall conform to standards for the City's functional street classification, as shown on the Transportation System Plan (TSP) Map (Figure ~~15~~ **17**) and other applicable City standards. The following table depicts the guidelines for the street characteristics.

16.106.020 - Required Improvements

A. Generally

Except as otherwise provided, all developments containing or abutting an existing or proposed street, that is either unimproved or substandard in right-of-way width or improvement, shall dedicate the necessary right-of-way prior to the issuance of building permits and/or complete acceptable improvements prior to issuance of occupancy permits. Right-of-way requirements are based on functional classification of the street network as established in the Transportation System Plan, Figure ~~15~~ **17**.

February 13, 2018

Michael C. Robinson
Admitted in Oregon
T: 503-796-3756
C: 503-407-2578
mrobinson@schwabe.com

VIA EMAIL

Ms. Jean Simson, Chair
Sherwood Planning Commission
Sherwood City Hall
22560 SW Pine Street
Sherwood, OR 97140

RE: Amendment to Sherwood Transportation System Plan ("TSP")

Dear Ms. Simson:

This office represents Holt Homes ("Holt"). Holt supports the proposed amendments to the Sherwood Transportation System Plan (the "TSP"), including the amendment to TSP Figure 11. As the Staff Report explains at page 2, the amendment to Figure 11 is a "housekeeping" amendment which will have the effect of making the Brookman Road arterial street classification consistent with Washington County's Transportation System Plan for Brookman Road. The amendment is required as the result of a settlement agreement between the City and Washington County entered into in order to resolve the appeal of the City's annexation of property adjacent to Brookman Road.

I have asked Ms. Palmer to place this letter in the official Planning Department file for this legislative matter and before you at the initial evidentiary hearing on February 13, 2018. I have asked Ms. Palmer to provide me with notice of the Planning Commission's recommendation to the Sherwood City Council and to provide me with notice of the City Council's final decision on the TSP amendment.

Very truly yours,



Michael C. Robinson

MCR:erh

cc: Client (via email)
Ms. Erika Palmer (via email)

Exhibit D

Ms. Jean Simson, Chair
February 13, 2018
Page 2

bc: Mr. Joe Schiewe (via email)
Mr. Rian Tuttle (via email)
Mr. Alex Hurley (via email)
Mr. Chris Goodell (via email)
Mr. Chris Brehmer (via email)

PDX\132609\237630\MCR\22386367.1



ORDINANCE 2018-003

ADOPTING MINOR AMENDMENTS TO THE CITY OF SHERWOOD'S 2014 TRANSPORTATION SYSTEM PLAN VOLUME 1 AND 2, AND TO THE ZONING AND COMMUNITY DEVELOPMENT CODE, CHAPTER 16.106 TRANSPORTATION FACILITIES

WHEREAS, the City of Sherwood Transportation System Plan was adopted through Ordinance 2014-12 on June 17, 2014; and

WHEREAS, minor amendments to the City of Sherwood 2014 Transportation System Plan Volume 1 and 2 and to the City of Sherwood Zoning and Community Development Code, Chapter 16.106 have been identified to correct inconsistencies and to include an additional figure; and

WHEREAS, the City of Sherwood desires to develop a transportation system that is consistent with the City's adopted comprehensive land use plan and with the adopted plans of state, local, and regional jurisdictions; and

WHEREAS, the City of Sherwood provided public hearing notice in accordance with Chapter 16.72.020 of the Sherwood Zoning and Community Development Code; and

WHEREAS, the City of Sherwood Planning Commission held a public hearing on February 13, 2018 to discuss and take public testimony on the proposed amendments and at which time the Commission approved a recommendation that City Council approve PA 18-02; and

WHEREAS, the City Council having conducted public hearings on the proposed amendments on March 6, 2018, March 20, 2018 and duly considering the entire record, herein finds that the proposed amendments to the TSP and to Chapter 16.106 of the City of Sherwood Zoning and Community Development Code are in the best interest of the community for providing consistency with the city's land use plan and adopted plans of state, local and regional jurisdictions;

NOW, THEREFORE, THE CITY OF SHERWOOD ORDAINS AS FOLLOWS:

Section 1. The City hereby adopts the amendments to City of Sherwood 2014 Transportation Plan, hereto as Exhibit A incorporated herein.

Section 2. The City hereby adopts the amendment to the City of Sherwood Zoning and Community Development Code, Chapter 16.106, Transportation Facilities, hereto as Exhibit B incorporated herein.

Section 3. This Ordinance shall become effective 30 days from its adoption.

Duly passed by the City Council this 20th of March, 2018.

Lee Weislogel, Mayor

Date

Attest:

Sylvia Murphy, MMC, City Recorder

	<u>AYE</u>	<u>NAY</u>
Rosener	_____	_____
Griffin	_____	_____
Brouse	_____	_____
Young	_____	_____
Kuiper	_____	_____
Garland	_____	_____
Weislogel	_____	_____

Figure 11
Motor Vehicle Projects

Ordinance 2018-003, Exh A & B
March 20, 2018, Page 1 of 6

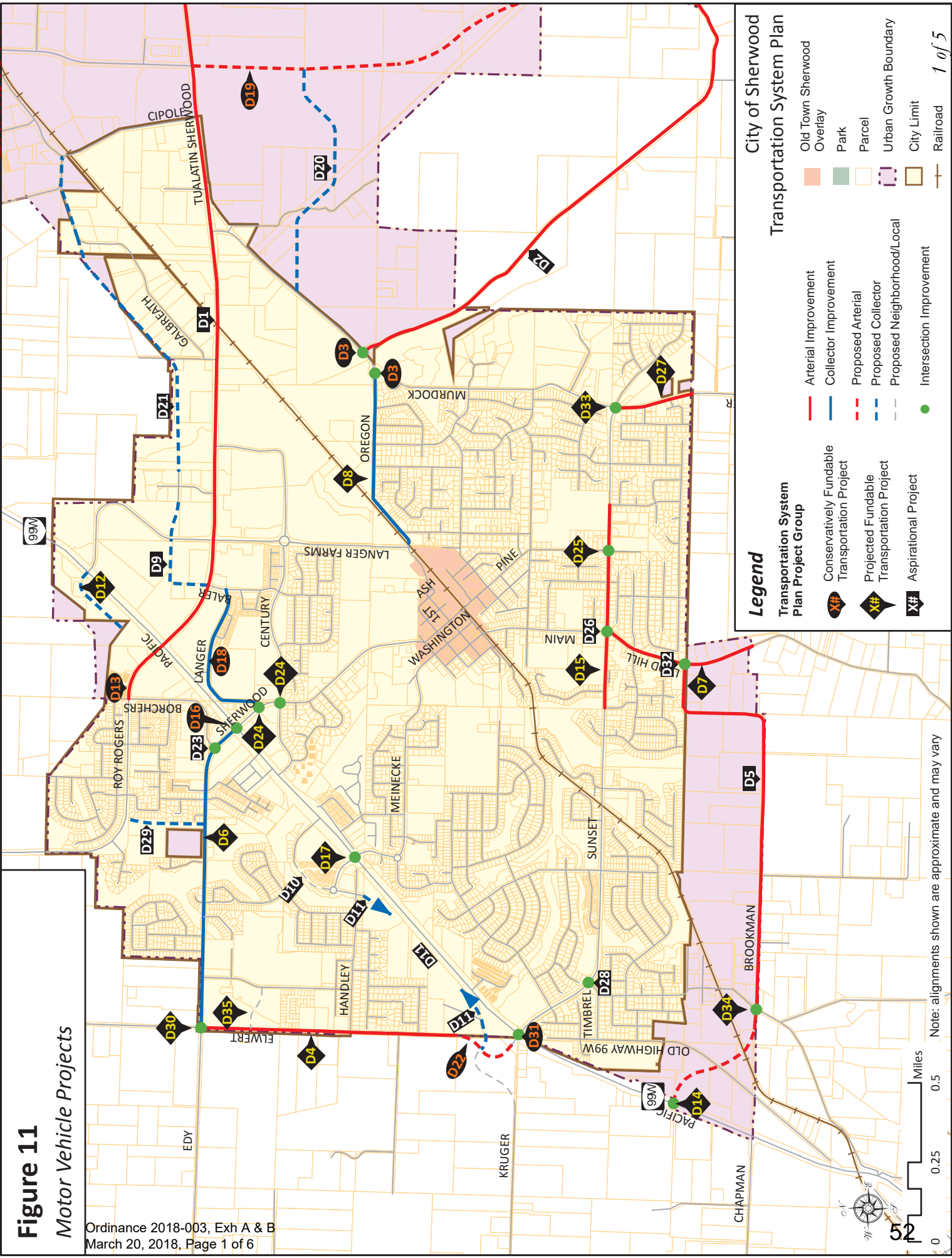
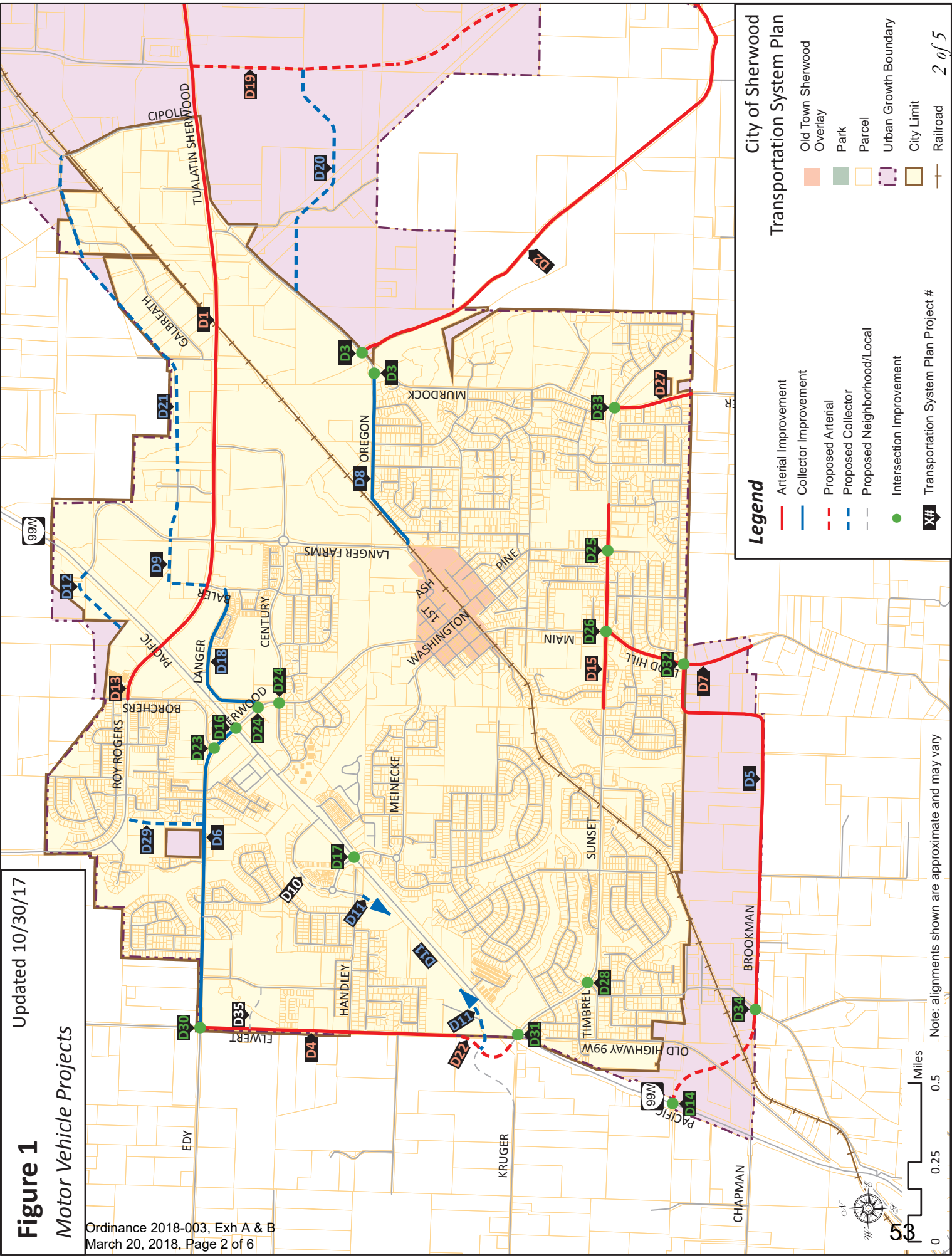


Figure 1
Motor Vehicle Projects

Updated 10/30/17

Ordinance 2018-003, Exh A & B
March 20, 2018, Page 2 of 6



City of Sherwood
Transportation System Plan

Legend

- Arterial Improvement
- Collector Improvement
- Proposed Arterial
- Proposed Collector
- Proposed Neighborhood/Local
- Intersection Improvement
- Old Town Sherwood Overlay
- Park
- Parcel
- Urban Growth Boundary
- City Limit
- Railroad
- X# Transportation System Plan Project #

Note: alignments shown are approximate and may vary

0 0.25 0.5 Miles

Sherwood TSP Update - Project List - ADOPTED 06/17/14

Legend

- Financially Constrained Group 1 (\$11 million through 2035)
- Financially Constrained Group 2 (\$60 million through 2035)

Project List

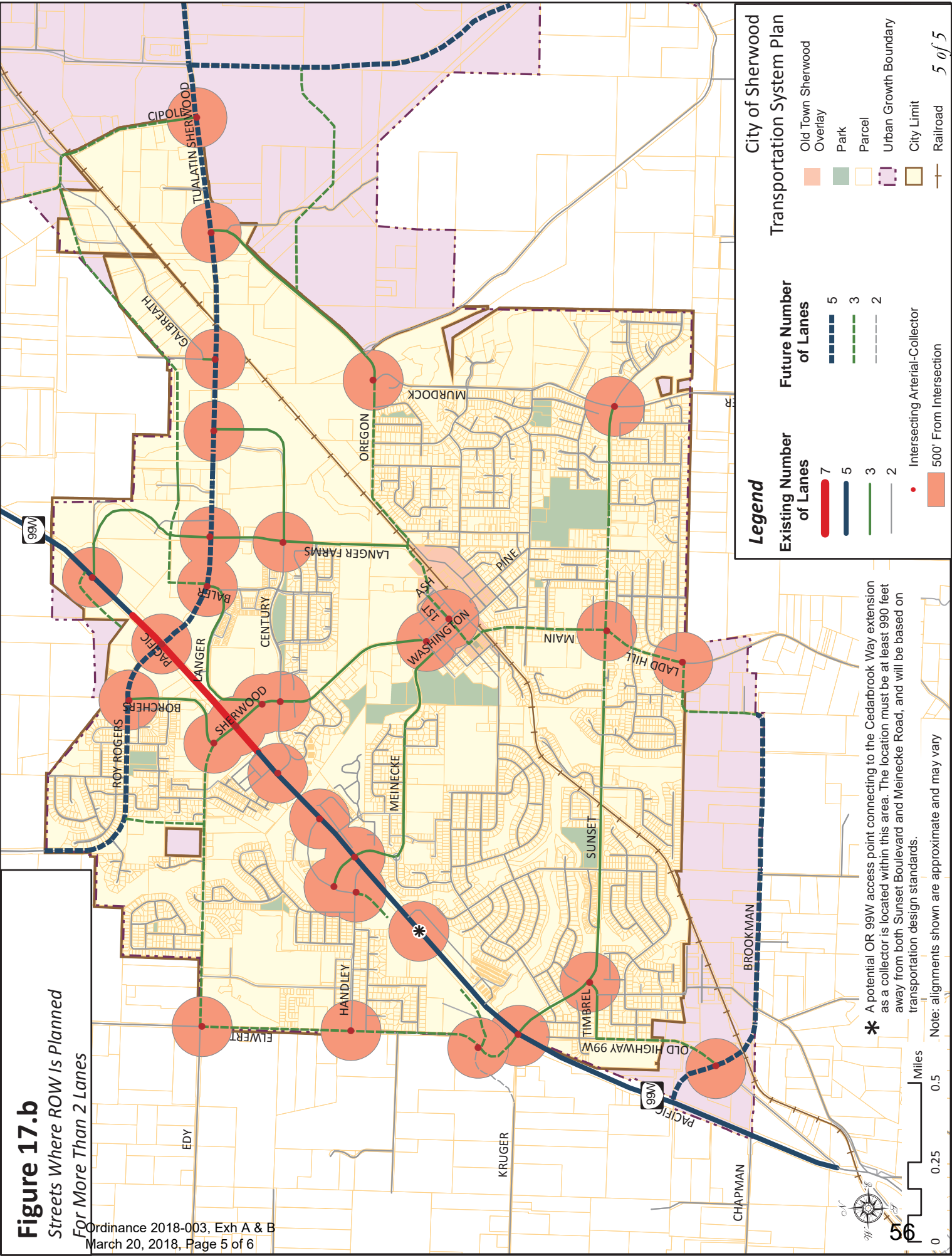
Project #	Project Name	Primary Mode	Project Start Point	Project End Point	Project Details	Evaluation Score	Need Reference #
D1	Tualatin-Sherwood Road Improvements - Phase 2	Roads/bridges	Langer Farms Parkway	Teton Avenue	Widen Tualatin-Sherwood Road (from Langer Farms Parkway to Teton Avenue) to five lanes with bike lanes and sidewalks.	2.5	102-107
D2	Tonquin Road Safety Improvements	Roads/bridges	Grahams Ferry Road	Oregon Street	Widen Tonquin Road (from Grahams Ferry Road to Oregon Street) to provide shoulders.	2.5	32, 68
D3	Oregon Intersections Improvements at Murdock and Tonquin	Roads/bridges	Oregon Street/Tonquin Road	Oregon Street/Murdock Road	Install a roundabout at the Tonquin Road/Oregon Street intersection with dual westbound through lanes and a single eastbound through/right lane. Consider creating a "Dumbbell Roundabout" with the Oregon/Murdock roundabout by disallowing the west circulating lane at Oregon/Tonquin and disallowing the east circulating lane at Oregon/Murdock. Add a second westbound approach lane to the Murdock Road Oregon Street roundabout for separated westbound left and westbound through lanes. Keep three lanes on the bridge structure.	3.5	129, 130
D4	Elwert Road Improvements	Roads/bridges	Highway 99W	Edy Road	Upgrade Elwert Road (from Highway 99W to Edy Road) to a three lane arterial with bike lanes and sidewalks. This project may be phased with D30 for design and construction purposes.	3.5	11, 119, 120, 121
D5	Brookman Road Improvements	Roads/bridges	Highway 99W	Middleton Road	Implement Brookman Road Concept Plan improvements to Brookman Road from Highway 99W to Middleton Road. Major improvements include: rebuild road to a three lane arterial facility, and a shared-use path along the north side. In addition, reserve right-of-way for the potential widening to five lanes in the event that further refinements to the I-5/99W Connector Plan identify Brookman Road as the Southern Arterial to serve as the primary route for east-west mobility.	1.5	58, 146, 147, 94
D6	Edy Road Improvements	Roads/bridges	Borchers Drive	City Limits	Upgrade Edy Road (from Borchers Drive to City Limits) to a three lane collector with bike lanes and sidewalks.	4.0	5, 10, 55, 56, 122, 123, 124
D7	Ladd Hill Road Improvements	Roads/bridges	Sunset Boulevard	Urban Growth Boundary	Upgrade Ladd Hill Road (from Sunset Boulevard to the Urban Growth Boundary) to a three arterial with bike lanes and sidewalks.	3.5	53, 57, 146
D8	Oregon Street Improvements	Roads/bridges	Murdock Road	Railroad Crossing	Upgrade Oregon Street (from Murdock Road to the railroad crossing) to a three lane collector with sidewalks on south side and a shared-use path on the north side (part of the Ice Age Tonquin Trail).	3.0	28, 29, 49, 130
D9	Baler to Herman Connection	Roads/bridges	Baler Way/Tualatin-Sherwood Road	Herman Road/Langer Farms Parkway	Build a collector roadway, connecting Baler Way at Tualatin-Sherwood Road to the future terminus of the Herman Road at Langer Farms Parkway.	2.0	None (previously planned project)
D10	Cedar Brook Way Extension Segment 1	Roads/bridges	Meinecke Road	Existing Terminus	Extend Cedar Brook Way from its existing terminus to Meinecke Road as a two lane local road.	2.0	None (previously planned project)
D11	Cedar Brook Way Extension Segment 2	Roads/bridges	Handley Street	Highway 99W	Extend Cedar Brook Way from its existing terminus at Handley Street south to Elwert Road as a two lane collector road.	2.0	None (previously planned project)
D12	Extension of Langer Farms Parkway at 99W	Roads/bridges	Highway 99W	-	Extend Langer Farms Parkway from 99W west as a collector road.	2.5	None (previously planned project)
D13	Tualatin-Sherwood Improvements – Phase 1	Roads/bridges	Borchers Drive	Baler Way	Widen Tualatin-Sherwood Road/Roy Rogers Road between Borchers Drive and Baler Way to five lanes. Includes intersection modifications at OR 99W, the Sherwood Market Center, and at Baler Way.	-	None (previously planned project)
D14	Highway 99W/Brookman Traffic Signal and Realignment	Roads/bridges	Highway 99W	Middleton Road	Realign Brookman Road to intersect with Highway 99W approximately 1/4 mile north of its existing intersection; this improvement includes a traffic signal at the realigned intersection with a westbound left and southbound right turn lane, and a grade separated railroad crossing.	5.0	94
D15	Sunset Boulevard Improvements	Roads/bridges	Aldergrove Avenue	Eucalyptus Terrace	Upgrade Sunset Boulevard (from Aldergrove Avenue to Eucalyptus Terrace) to a three lane arterial with sidewalks and bike lanes. Address vertical crest sight distance issues near Pine Street.	3.5	15, 51, 139-143
D16	Edy/Highway 99W Intersection Improvements	Roads/bridges	Edy Road/Highway 99W	-	Restripe the westbound Sherwood Boulevard approach to have a single left turn lane, a single through lane, and a single right turn lane. Eliminate the split phase timing for the side streets, and maintain the existing green time on OR 99W for the northbound and southbound through movements. Add the missing crosswalk to the south approach. Consider implementing P3 alongside this project.	5.5	92
D17	Meinecke/Highway 99W Intersection Improvements	Roads/bridges	Meinecke Road/Highway 99W	-	Change the eastbound and westbound left turn phasing on Meinecke Road from permitted to permitted/protected and maintaining the existing green time on OR 99W for the northbound and southbound through movements. Consider implementing P3 alongside this project.	2.5	99
D18	Langer Drive Improvements	Roads/bridges	Baler Way	Sherwood Boulevard	Construct improvements to Langer Drive between Baler Way and Sherwood Boulevard that are consistent with the Sherwood Town Center Plan. Major improvements include: buffered bike lanes, on-street parking, wider sidewalks, narrower travel lanes, removal of the center turn lane, and landscaping.	4.5	41
D19	124th Avenue Extension	Roads/bridges	Tualatin-Sherwood Road	Tonquin Road	Extend 124th Avenue as an arterial from Tualatin-Sherwood Road to Tonquin Road.	1.0	None (previously planned project)
D20	Tonquin Employment Area East-West Collector	Roads/bridges	Oregon Street	124th Avenue Extension	Build an east-west collector facility between Oregon Street and the 124th Avenue extension in the Tonquin Employment Area; improvement includes a roundabout at the Oregon Street intersection.	2.0	None (previously planned project)
D21	Herman Road Extension	Roads/bridges	Cipole Road	Highway 99W or Langer Farms Parkway	Extend Herman Road from its existing terminus at Cipole Road west to either Highway 99W or Langer Farms Parkway as a two to three lane collector facility.	4.0	None (previously planned project)
D22	Kruger/Elwert Intersection Safety Improvement	Roads/bridges	Kruger Road/Elwert Road	-	Realign Elwert Road to provide more storage at Highway 99W, and realign the Kruger Road intersection to the Cedarbrook extension as a single lane roundabout. Consider implementing D31 with this project.	2.5	153
D23	Edy/Borchers Right-In/Right-Out and Eastbound Lefts	Roads/bridges	Edy Road/Borchers Drive	-	Convert the Edy Road/Borchers Drive intersection to only allow right-in/right-out and eastbound left in; build a roundabout on Edy Road to the west at the south property's existing driveway.	3.0	None (previously planned project)
D24	Sherwood Boulevard Intersection Modifications	Roads/bridges	Sherwood Boulevard/ Langer Drive	Sherwood Boulevard/ Century Drive	Remove the Sherwood Boulevard/Langer Drive traffic signal (allow right-in, right-out, and left-in movements only), and install a traffic signal at the Sherwood Boulevard/Century Drive intersection (add eastbound and westbound left turn lanes).	4.0	126
D25	Sunset/Pine Improvements	Roads/bridges	Sunset Boulevard/ Pine Street	-	Restripe Sunset Boulevard at Pine Street to add eastbound and westbound left turn lanes.	2.5	142

Sherwood TSP Project List

Project #	Project Name	Project Details	Evaluation Score	Estimated Cost	City Cost	Priority
Motor Vehicle Projects						
D1	Tualatin-Sherwood Road Improvements - Phase 2	Widen Tualatin-Sherwood Road (from Langer Farms Parkway to Teton Avenue) to five lanes with bike lanes and sidewalks.	2.5	\$43,042,500	\$0	Long-Term
D2	Tonquin Road Safety Improvements	Widen Tonquin Road (from Grahams Ferry Road to Oregon Street) to provide shoulders.	2.5	\$28,406,000	\$0	Long-Term
D3	Oregon Intersections Improvements at Murdock and Tonquin	Install a roundabout at the Tonquin Road/Oregon Street intersection with dual westbound through lanes and a single eastbound through/right lane. Consider creating a "Dumbbell Roundabout" with the Oregon/Murdock roundabout by disallowing the west circulating lane at Oregon/Tonquin and disallowing the east circulating lane at Oregon/Murdock. Add a second westbound approach lane to the Murdock Road Oregon Street roundabout for separated westbound left and westbound through lanes. Keep three lanes on the bridge structure.	3.5	\$2,945,000	\$1,389,000	Short-Term
D4	Elwert Road Improvements	Upgrade Elwert Road (from Highway 99W to Edy Road) to a three lane arterial with bike lanes and sidewalks. This project may be phased with D30 for design and construction purposes.	3.5	\$11,430,000	\$2,286,000	Medium-Term
D5	Brookman Road Improvements	Implement Brookman Road Concept Plan improvements to Brookman Road from Highway 99W to Middleton Road. Major improvements include: rebuild road to a three lane arterial facility, and a shared-use path along the north side. In addition, reserve right-of-way for the potential widening to five lanes in the event that further refinements to the I-5/99W Connector Plan identify Brookman Road as the Southern Arterial to serve as the primary route for east-west mobility.	1.5	\$15,300,000	\$3,060,000	Long-Term
D6	Edy Road Improvements	Upgrade Edy Road (from Borchers Drive to City Limits) to a three lane collector with bike lanes and sidewalks.	4	\$8,760,000	\$8,760,000	Medium-Term
D7	Ladd Hill Road Improvements	Upgrade Ladd Hill Road (from Sunset Boulevard to the Urban Growth Boundary) to a three arterial with bike lanes and sidewalks.	3.5	\$6,340,000	\$6,340,000	Medium-Term
D8	Oregon Street Improvements	Upgrade Oregon Street (from Murdock Road to the railroad crossing) to a three lane collector with sidewalks on south side and a shared-use path on the north side (part of the Ice Age Tonquin Trail).	3	\$6,712,000	\$6,712,000	Medium-Term
D9	Baler to Herman Connection	Build a collector roadway, connecting Baler Way at Tualatin-Sherwood Road to the future terminus of the Herman Road at Langer Farms Parkway.	2	\$3,802,000	\$3,802,000	Long-Term
D10	Cedar Brook Way Extension Segment 1	Extend Cedar Brook Way from its existing terminus to Meinecke Road as a two lane local road.	2	\$596,000	\$596,000	Long-Term
D11	Cedar Brook Way Extension Segment 2	Extend Cedar Brook Way from its existing terminus at Handley Street south to Elwert Road as a two lane collector road.	2	\$13,000,000	\$13,000,000	Long-Term
D12	Extension of Langer Farms Parkway at 99W	Extend Langer Farms Parkway from 99W west as a collector road.	2.5	\$3,243,000	\$3,243,000	Medium-Term
D13	Tualatin-Sherwood Improvements – Phase 1	Widen Tualatin-Sherwood Road/Roy Rogers Road between Borchers Drive and Baler Way to five lanes. Includes intersection modifications at OR 99W, the Sherwood Market Center, and at Baler Way.	-	\$0	\$0	Committed Funding
D14	Highway 99W/Brookman Traffic Signal and Realignment	Realign Brookman Road to intersect with Highway 99W approximately 1/4 mile north of its existing intersection; this improvement includes a traffic signal at the realigned intersection with a westbound left and southbound right turn lane, and a grade separated railroad crossing.	5	\$7,020,000	\$1,404,000	Medium-Term
D15	Sunset Boulevard Improvements	Upgrade Sunset Boulevard (from Aldergrove Avenue to Eucalyptus Terrace) to a three lane arterial with sidewalks and bike lanes. Address vertical crest sight distance issues near Pine Street.	3.5	\$8,316,000	\$8,316,000	Medium-Term
D16	Edy/Highway 99W Intersection Improvements	Restripe the westbound Sherwood Boulevard approach to have a single left turn lane, a single through lane, and a single right turn lane. Eliminate the split phase timing for the side streets, and maintain the existing green time on OR 99W for the northbound and southbound through movements. Add the missing crosswalk to the south approach. Consider implementing P3 alongside this project.	5.5	\$1,070,000	\$214,000	Short-Term
D17	Meinecke/Highway 99W Intersection Improvements	Change the eastbound and westbound left turn phasing on Meinecke Road from permitted to permitted/protected and maintaining the existing green time on OR 99W for the northbound and southbound through movements. Consider implementing P3 alongside this project.	2.5	\$5,000	\$1,000	Medium-Term
D18	Langer Drive Improvements	Construct improvements to Langer Drive between Baler Way and Sherwood Boulevard that are consistent with the Sherwood Town Center Plan. Major improvements include: buffered bike lanes, on-street parking, wider sidewalks, narrower travel lanes, removal of the center turn lane, and landscaping.	4.5	\$2,000,000	\$2,000,000	Short-Term
D19	124th Avenue Extension	Extend 124th Avenue as an arterial from Tualatin-Sherwood Road to Tonquin Road.	1	\$82,500,000	\$0	Committed Funding
D20	Tonquin Employment Area East-West Collector	Build an east-west collector facility between Oregon Street and the 124th Avenue extension in the Tonquin Employment Area; improvement includes a roundabout at the Oregon Street intersection.	2	\$6,400,000	\$6,400,000	Long-Term
D21	Herman Road Extension	Extend Herman Road from its existing terminus at Cipole Road west to either Highway 99W or Langer Farms Parkway as a two to three lane collector facility.	4	\$8,190,000	\$8,190,000	Long-Term
D22	Kruger/Elwert Intersection Safety Improvement	Realign Elwert Road to provide more storage at Highway 99W, and realign the Kruger Road intersection to the Cedarbrook extension as a single lane roundabout. Consider implementing D31 with this project.	2.5	\$1,550,000	\$0	Committed Funding
D23	Edy/Borchers Right-In/Right-Out and Eastbound Lefts	Convert the Edy Road/Borchers Drive intersection to only allow right-in/right-out and eastbound left in; build a roundabout on Edy Road to the west at the south property's existing driveway.	3	\$2,000,000	\$2,000,000	Long-Term
D24	Sherwood Boulevard Intersection Modifications	Remove the Sherwood Boulevard/Langer Drive traffic signal (allow right-in, right-out, and left-in movements only), and install a traffic signal at the Sherwood Boulevard/Century Drive intersection (add eastbound and westbound left turn lanes).	4	\$900,000	\$900,000	Medium-Term
D25	Sunset/Pine Improvements	Restripe Sunset Boulevard at Pine Street to add eastbound and westbound left turn lanes.	2.5	\$6,000	\$6,000	Medium-Term
D26	Sunset/Main Traffic Control Enhancement	Install a traffic signal at the Sunset Boulevard/Main Street intersection	4	\$250,000	\$250,000	Long-Term
D27	Baker Road Improvements	Upgrade Baker Road (from Sunset Boulevard to the urban growth boundary) to a two lane arterial with bike lanes and sidewalks.	3	\$779,000	\$779,000	Medium-Term
D28	Sunset/Timbrel Traffic Control Enhancement	Install a single lane roundabout at the Sunset Boulevard/Timbrel Lane intersection.	2.5	\$300,000	\$300,000	Long-Term
D29	Edy to Roy Rogers Collector Roadway	Build a collector roadway from Edy Road to Roy Rogers Road, between Cedarview Way and Lynnly Way.	2.5	\$3,400,000	\$3,400,000	Long-Term
D30	Elwert/Edy Roundabout	Install a single lane roundabout at the Elwert Road/Edy Road intersection. This project may be phased with D4 for design and construction purposes.	2.5	\$1,500,000	\$750,000	Medium-Term

Figure 17.b
 Streets Where ROW Is Planned
 For More Than 2 Lanes

Ordinance 2018-003, Exh A & B
 March 20, 2018, Page 5 of 6



City of Sherwood
 Transportation System Plan

Legend

Existing Number of Lanes	Future Number of Lanes	Old Town Sherwood Overlay
7 (Red circle)	5 (Blue dashed line)	Orange shaded area
5 (Blue solid line)	3 (Green dashed line)	Green shaded area
3 (Green solid line)	2 (Black dashed line)	Yellow shaded area
2 (Black solid line)	Intersecting Arterial-Collector (Red dot)	Purple dashed line
	500' From Intersection (Orange circle)	Yellow solid line
		Railroad (Black line with cross-ticks)

* A potential OR 99W access point connecting to the Cedarbrook Way extension as a collector is located within this area. The location must be at least 990 feet away from both Sunset Boulevard and Meinecke Road, and will be based on transportation design standards.

Note: alignments shown are approximate and may vary



PROPOSED CHANGES TO CHAPTER 16.106 TRANSPORTATION FACILITIES

~~STRIKEOUT~~ = DELETED TEXT

BOLD UNDERLINE = NEW TEXT

Chapter 16.106 - TRANSPORTATION FACILITIES

16.106.010 - Generally

A. Creation

Public streets shall be created in accordance with provisions of this Chapter. Except as otherwise provided, all street improvements and rights-of-way shall conform to standards for the City's functional street classification, as shown on the Transportation System Plan (TSP) Map (Figure ~~15~~ **17**) and other applicable City standards. The following table depicts the guidelines for the street characteristics.

16.106.020 - Required Improvements

A. Generally

Except as otherwise provided, all developments containing or abutting an existing or proposed street, that is either unimproved or substandard in right-of-way width or improvement, shall dedicate the necessary right-of-way prior to the issuance of building permits and/or complete acceptable improvements prior to issuance of occupancy permits. Right-of-way requirements are based on functional classification of the street network as established in the Transportation System Plan, Figure ~~15~~ **17**.

TO: Sherwood City Council

FROM: Carrie Brennecke, Senior Planner
Through: Joseph Gall, ICMA-CM, City Manager and Julia Hajduk, Community Development Director

SUBJECT: **Ordinance 2018-004, Adoption of the Housing Needs Analysis (HNA) for the 2018 to 2038 planning period, and a text amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan (*First Reading*)**

Issue:

Shall the City Council approve the Housing Needs Analysis (HNA) for the 2018 to 2038 planning period and a text amendment to the Comprehensive Plan to include the HNA for 2018-2038?

Background:

A Housing Needs Analysis (HNA) is a document used throughout the state to demonstrate compliance with Statewide Planning Goal 10 (Housing) and provides jurisdictions with factual basis to support future planning efforts related to housing. The HNA for 2018-2038 prepared for Sherwood describes the current housing market, historical and recent housing trends, current and future demographic characteristics of Sherwood, and forecasts future housing needs based on these considerations and the Metro 2016 Urban Growth Report forecasted growth rate. The HNA contains a Buildable Lands Inventory and addresses residential land sufficiency inside the UGB to meet Sherwood's housing needs for the 20-year planning horizon.

This HNA update initially was developed as part of the Sherwood West Preliminary Concept Plan in 2015. The initial version of the HNA was for the time period of 2015-2035. The HNA helped inform the preliminary concept plan process for an area of Sherwood's Urban Reserve Area 5B. The HNA for 2015-2035 was not adopted by the City or processed as an amendment to the City's Comprehensive Plan.

As a component of the Comprehensive Plan update that we are embarking on and for the purposes of submitting a proposal for Metro's 2018 Urban Growth Management Decision, the City updated the HNA to reflect the 2018-2038 time period. The HNA provides a factual basis to support future planning efforts related to housing. While we were already planning on updating the HNA as part of the Comprehensive Plan process, this particular element was expedited because Metro is requiring that cities have an acknowledged HNA by the Department of Land Conservation and Development within the past 5 years for a proposal for an urban growth boundary expansion to be considered. The proposed amendment to the Comprehensive Plan for the inclusion of the HNA for 2018-2038 contains no updates to Sherwood's Comprehensive Plan goals and policies, no updates to the Plan and Zoning Map, or any updates to the Zoning and Development Code. The HNA is for background information and data purposes only and prepares for the update and revision to the housing element of the City's Comprehensive Plan. A complete update of Sherwood's Comprehensive Plan will take place between 2018 and 2020. The discussion and development of updates to the housing element is scheduled for Fall 2018.

On February 13, 2018 the Planning Commission held a public hearing on the adoption of the HNA for 2018-2038 and the Comprehensive Plan Text Amendment. The HNA and text amendment considered by the Planning Commission is included as Attachment 1 to this staff report. The City has received no public testimony in support or opposed in writing or at the public hearing. At the February 13th meeting, the planning commission shared various concerns they have regarding information in the HNA and the implications of adopting the HNA as presented. The Planning Commission requested additional information and clarifications from staff for various portions of the HNA. The Planning Commission closed the public testimony and continued the public hearing to their next scheduled meeting on February 27, 2018.

On February 27, 2018 the Planning Commission considered the additional information and clarifications provided by staff, deliberated and recommended approval of the HNA and Comprehensive Plan text amendment with changes identified in Attachment 2 to this staff report. The recommendation also included a supplemental report (Attachment 3 to this staff report). The ordinance included in the packet includes a clean version of the Planning Commission's recommended version of the HNA as Exhibit A, the proposed Comprehensive Plan text as Exhibit B and the Staff report/Finding of Fact as Exhibit C.

The City Council has a number of different alternatives for consideration, including:

1. Adopt the Ordinance and HNA as recommended by the Planning Commission.
2. Adopt the HNA for 2018-2038 as originally drafted. If the PC revisions are not accepted, the Council will need to clarify in their motion that the original HNA for 2018-2038 as presented in Attachment 1 to the staff report will replace the HNA for 2018-2038 in Exhibit A to Ordinance 2018-004.
3. The City Council may choose to make their own revisions to the HNA for 2018-2038 and include the City Council revised HNA for 2018-2038 as Exhibit A to Ordinance 2018-004.
4. The City Council may choose not to pass Ordinance 2018-004. If that decision is made, the City will not be able to submit a request to Metro for a UGB expansion in May 2018.

Financial Impacts:

This action will not result in any direct fiscal impacts.

Recommendation:

Staff respectfully recommends that the City Council hold the first public hearing to determine whether to adopt Ordinance 2018-004 approving the Housing Needs Analysis 2018-2038 and the text amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan. The second public hearing on this matter is scheduled for April 3, 2018.

Attachments:

1. Original HNA for 2018-2018 presented at the Planning Commission meeting on February 13th
2. Redlined version of the HNA for 2018-2038 that shows the Planning Commission's recommended revisions to the HNA
3. Planning Commission's Supplemental Report to the HNA

Sherwood Housing Needs Analysis 2018 to 2038

Prepared for:

City of Sherwood

December 2017

ECONorthwest
ECONOMICS • FINANCE • PLANNING

Contact Information

Beth Goodman and Robert Parker, AICP, prepared this report as a subcontractor to Cogan Owens Greene for the City of Sherwood. ECONorthwest is solely responsible for its content, any errors or omissions.

ECONorthwest specializes in economics, planning, and finance. Established in 1974, ECONorthwest has over three decades of experience helping clients make sound decisions based on rigorous economic, planning, and financial analysis.

For more information about this report, please contact:

Erika Palmer, Planning Manager
22560 SW Pine Street
Sherwood, Oregon 97140
503-625-4208
PalmerE@SherwoodOregon.gov

Acknowledgements

Cogan Owens Greene, ECONorthwest and the City of Sherwood thank the many people who helped to develop the Sherwood Draft Housing Needs Analysis.

Regional Partners

Brian Harper, Metro

State of Oregon

Anne Debbaut, Regional Representative, DLCD

Gordon Howard, Urban Planning Specialist, DLCD

City of Sherwood

Julia Hajduk, Community Development Director

Erika Palmer, Planning Manager

Carrie Brennecke AICP, Senior Planner

Brad Kilby AICP, (former) Planning Manager

Connie Randall, (former) Planning Manager

Michelle Miller AICP, (former) Senior Planner

Table of Contents

Executive Summary	i
How has Sherwood’s Population Changed in Recent Years?	i
What Factors May Affect Future Growth in Sherwood?	ii
What Are the Characteristics of Sherwood’s Housing Market?	iii
How Much Housing Growth is Forecast, and Can that Growth be Accommodated within Sherwood?	v
What if Sherwood Grows Faster?.....	v
What are the Implications for Sherwood’s Housing Policies?	vi
1 Introduction	1
Background	1
Organization of the Report	2
Framework for a Housing Needs Analysis	3
Oregon housing policy	4
2 Historical and Recent Development Trends	8
3 Housing Need in Sherwood	12
Projection of New Housing Units Needed in the Next 20 Years....	13
Demographic and Socioeconomic Factors Affecting Housing Choice.....	14
Regional and Local Trends in Housing Costs and Affordability.....	24
Forecast of Housing by Type and Density of Housing.....	27
4 Residential Land Sufficiency	32
Residential Buildable Land	32
Residential Development Capacity	35
Residential Land Sufficiency	39
Potential growth in Sherwood West.....	40
Conclusions and Recommendations	41
Appendix A. Appendix A. Residential Buildable Lands Inventory	1
Methodology.....	1
Results of the Buildable Lands Inventory	5
Appendix B. Trends Affecting Housing Need in Sherwood	1
Historical and Recent Development Trends.....	1
National Housing Trends	11
State Demographic Trends.....	23
Regional and Local Demographic Trends.....	24
Manufactured Homes.....	35

Income and Affordability of Housing.....42

This page intentionally left blank.

Executive Summary

This is an executive summary of the findings of the Sherwood Housing Needs Analysis for the 2018 to 2038 period. The housing needs analysis provides Sherwood with a factual basis to support future planning efforts related to housing, including Concept Planning for Sherwood West, and prepares to update and revise the City's Comprehensive Plan policies.

The housing needs analysis is intended to comply with requirements of statewide planning policies that govern planning for housing and residential development, Goal 10, it's implementing Metropolitan Housing Rule (OAR 660-007), and Metro's 2040 Functional Growth Management Plan. Taken together, the City's primary obligations from Goal 10 are to (1) designate land in a way that provides the opportunity for 50% of new housing to be either multifamily or single-family attached housing (e.g., townhouses); (2) achieve an average density of six dwelling units per net acre; and (3) provide enough land to accommodate forecasted housing needs for the next 20 years. Sherwood is able to meet these requirements and can accommodate most of the new housing forecast, as described in this summary.

HOW HAS SHERWOOD'S POPULATION CHANGED IN RECENT YEARS?

The basis for the housing needs analysis is an understanding of the demographic characteristics of Sherwood's residents.¹

- **Sherwood's population grew relatively fast in recent years.** Sherwood's population increased from 3,000 people in 1990 to nearly 18,600 people in 2013, averaging 8% annual growth. Sherwood's fastest period of growth was during the 1990s, consistent with statewide trends. Between 2000-2013, Sherwood grew by 6,600 people, at an average rate of nearly 3.5% per year. For comparison, Washington County grew at 2.5% annually between 1990-2013 and the Portland Region grew at 1.6% per year.
- **Sherwood's population is aging.** People aged 45 years and older were the fastest growing age group in Sherwood between 2000 and 2010, consistent with state and national trends. By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015) and 25% in the Portland Region (up from 19% in 2015).

¹ The majority of data quoted in this analysis is from the U.S. Census American Community survey, with population data from the Population Research Center at Portland State University and development data from the City's Building Permit database.

It is reasonable to assume that the share of people 60 years and older will grow relatively quickly in Sherwood as well.

- **Sherwood is attracting younger people and more households with children.** In 2010, the median age in Sherwood was 34.3 years old, compared to Washington County’s median age of 35.3 years and the State median of 38.4. Sherwood has a larger share of households with children (47% of households), compared with Washington County (33%) or the Portland Region (29%). The Millennial generation—people born roughly between 1980 to 2000—are the largest age group in Oregon and will account for the majority of household growth in Sherwood over the next 20 years.
- **Sherwood’s population is becoming more ethnically diverse.** About 6% of Sherwood’s population is Latino, an increase from 4.7% in 2000. In comparison to Washington County and the Portland Region, Sherwood is less ethnically diverse. In the 2009-2013 period, 16% of Washington County residents, and 12% Portland Region residents, were Latino.

WHAT FACTORS MAY AFFECT FUTURE GROWTH IN SHERWOOD?

If these trends continue, population will result in changes in the types of housing demanded or “needed” in Sherwood in the future.

- **The aging of the population is likely to result in increased demand for smaller single-family housing, multifamily housing, and housing for seniors.** People over 65 years old will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes) as they continue to age.
- **The growth of younger and diversified households is likely to result in increased demand for a wider variety of affordable housing appropriate for families with children, such as small single-family housing, townhouses, duplexes, and multifamily housing.** If Sherwood continues to attract young residents, then it will continue to have demand for housing for families, especially housing affordable to younger families with moderate incomes. Growth in this population will result in growth

in demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.²

- **Changes in commuting patterns could affect future growth in Sherwood.** Sherwood is part of a complex, interconnected regional economy. Demand for housing by workers at businesses in Sherwood may change with significant fluctuations in fuel and commuting costs, as well as substantial decreases in the capacity of highways to accommodate commuting.
- **Sherwood households have relatively high income, which affects the type of housing that is affordable.** Income is a key determinant of housing choice. Sherwood's median household income (\$78,400) is more than 20% higher than Washington County's median household income (\$64,200). In addition, Sherwood has a smaller share of population below the federal poverty line (7.6%) than the averages of Washington County (11.4%) and the Portland Region (13.9%).

WHAT ARE THE CHARACTERISTICS OF SHERWOOD'S HOUSING MARKET?

The existing housing stock in Sherwood, homeownership patterns, and existing housing costs will shape changes in Sherwood's housing market in the future.

- **Sherwood's housing stock is predominantly single-family detached.** About 75% of Sherwood's housing stock is single-family detached, 8% is single-family attached (such as townhomes), and 18% is multifamily (such as duplexes or apartments). Sixty-nine percent of new housing permitted in Sherwood between 2000 and 2014 was single-family detached housing.
- **Almost three quarters of Sherwood's residents own their homes.** Homeownership rates in Sherwood are above Washington County (54%), the Portland Region (60%), and Oregon (62%) averages.
- **Homeownership costs increased in Sherwood, consistent with national trends.** Median sales prices for homes in Sherwood increased by about 30% between 2004 and 2014, from about \$245,000 to \$316,500. The median

² The housing needs analysis assumes that housing is affordable if housing costs are less than 30% of a household's gross income. For a household earning \$6,500 (the median household income in Sherwood), monthly housing costs of less than \$1,960 are considered affordable.

home value in Sherwood is 3.8 times the median household income, up from 2.9 times the median household income in 2000.

- **Housing sales prices are higher in Sherwood than the regional averages.** As of January 2015, median sales price in Sherwood was \$316,500, which is higher than the Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$237,300) median sales prices. Median sales prices were higher in Sherwood than in other Portland westside communities such as Tigard, Tualatin, and Beaverton, but lower than Wilsonville or West Linn.
- **Rental costs are higher overall in Sherwood than the regional averages.** The median rent in Sherwood was \$1,064, compared to Washington County's average of \$852.
- **More than one-third of Sherwood's households have housing affordability problems.** Thirty-eight percent of Sherwood's households were cost-burdened (i.e., paid more than 30% of their income on rent or homeownership costs). Renters were more likely to be cost-burdened (40% of renters were cost-burdened), compared to homeowners (35% were cost-burdened) in Sherwood. These levels of cost burden are consistent with regional averages. In Washington County in the 2009-2013 period, 38% of households were cost burdened, compared to 41% in the Portland Region.
- Future housing affordability will depend on the relationship between income and housing price. The key question is whether housing prices will continue to outpace income growth. Answering this question is difficult because of the complexity of the factors that affect both income growth and housing prices. It is clear, however, that Sherwood will need a wider variety of housing, especially housing affordable to low- and moderate-income households.

HOW MUCH HOUSING GROWTH IS FORECAST, AND CAN THAT GROWTH BE ACCOMMODATED WITHIN SHERWOOD?

The housing needs analysis in this report is based on Metro's coordinated forecast of household growth in Sherwood. The forecast includes growth in both areas within the city limits, as well as areas currently outside the city limits that the City expects to annex for residential uses (most notably the Brookman area).

- **Sherwood is forecast to add 1,653 new households between 2018 and 2038.** Of these, 697 new households are inside the existing city limits; 956 new households are outside the current city limits in the Brookman Area.
- **Sherwood's land base can accommodate most of the forecast for growth.** Vacant and partially vacant land in the Sherwood Planning Area has capacity to accommodate 1,156 new dwelling units. Sherwood can accommodate about 70% of the forecast for new housing on areas within the city limits and Brookman Area.
- **Sherwood has a deficit of land for housing.** Sherwood has a deficit of land for 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units), Medium Density Residential-High (153 dwelling units), and High Density Residential (179 dwelling units).
- **To provide adequate land supply, Sherwood will need to continue to annex the Brookman area.** Without the Brookman area developing, the City has a projected deficit of 922 dwelling units. Sherwood will need to continue to annex the Brookman area in order to accommodate the City's forecast of residential growth. The City recently annexed about 98 acres in the Brookman Area. The annexed land is in the center of the Brookman Area and has relatively few owners (about 8 property owners). Annexing and developing other areas, with a larger number of owners, may be more challenging, to the extent that the property owners have to come to agreement about development.

WHAT IF SHERWOOD GROWS FASTER?

- **The forecast for growth in Sherwood is considerably below historical growth rates.** Metro's forecast for new housing in Sherwood shows that households will grow at less than 1% per year. In comparison, Sherwood's population grew at 3.4% per year between 2000 and 2013 and 8% per year between 1990 and 2013. If Sherwood grows faster than Metro's forecast during the 2018 to 2038 period, then Sherwood will have a larger deficit of land needed to accommodate growth.

- **At faster growth rates, Sherwood’s land base has enough capacity for several years of growth.** At growth rates between 2% to 4% of growth annually, land inside the Sherwood city limits can accommodate two to five years of growth. With capacity in the Brookman Area, Sherwood can accommodate four to ten years of growth at these growth rates.
- **Additional housing growth in Sherwood depends the availability of development-ready land.** The amount of growth likely to happen in Sherwood over the next few years is largely dependent on when the Brookman Area is annexed, when the Sherwood West area is brought into the urban growth boundary and annexed, and when urban services (such as roads, water, and sanitary sewer) are developed in each area. The City recently annexed about 98 acres in the Brookman Area.

WHAT ARE THE IMPLICATIONS FOR SHERWOOD’S HOUSING POLICIES?

- **Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman area.** The growth rate of Metro’s forecast for household growth (0.8% average annual growth) is considerably lower than the City’s historical population growth rate over the last two decades (8% average annual growth). Metro’s forecast includes growth that can be generally accommodated within the Sherwood city limits and Brookman. Given the limited supply of buildable land within Sherwood, it is likely that the City’s residential growth will slow until Sherwood West is made development-ready.
- **Sherwood has a relatively limited supply of land for moderate- and higher-density multifamily housing.** The limited supply of land in these zones is a barrier to development of townhouses and multifamily housing, which are needed to meet housing demand resulting from growth of people over 65, young families, and moderate-income households.
- **The results of the Housing Needs Analysis highlight questions for the update of the City’s Comprehensive Plan and the Concept Planning of Sherwood West.**
 - Providing housing opportunities for first time home buyers and community elders (who prefer to age in place or downsize their housing) will require a wider range of housing types. Examples of these housing types include: single family homes on smaller lots, clustered housing, cottages or townhomes, duplexes, tri-plexes, four-plexes, garden apartments, or mid-rise apartments. Where should Sherwood consider providing a wider range of housing types? What types of housing should Sherwood plan for?

- Changes in demographics and income for Sherwood and regional residents will require accommodating a wider range of housing types. How many of Sherwood’s needed units should the city plan to accommodate within the city limits? How much of Sherwood’s needed units should be accommodated in the Brookman Area and in Sherwood West?
- What design features and greenspaces would be important to consider for new housing?
- What other design standards would be needed to “keep Sherwood Sherwood”?

1 Introduction

This report presents the Sherwood Housing Needs Analysis 2018 to 2038. The housing needs analysis provides Sherwood with a factual basis to support future planning efforts related to housing, including Concept Planning for Sherwood West, and prepares to update and revise the City's Comprehensive Plan policies. This report was based on the draft Sherwood Housing Needs Analysis 2015 to 2035 report, from June 2015.

It is intended to comply with statewide planning policies that govern planning for housing and residential development, Goal 10, OAR 660-007, and Metro's Functional Growth Management Plan. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

This report provides Sherwood with a factual basis to support future planning efforts related to housing and options for addressing unmet housing needs. It provides specific analysis that is required for a jurisdiction in Oregon to comply with state policies.

BACKGROUND

Sherwood is located at the southwestern edge of the Portland metropolitan urban growth boundary (UGB). Over the 2000 to 2014 period, Sherwood had a substantial amount of residential growth. Residential development included all of the different housing types with single family detached housing concentrated in the 2000 to 2005 period. In part due to this growth and limited land supply for new homes, Sherwood is embarking on a Concept Plan for the Sherwood West urban reserve. Concurrently, the City is updating its factual basis for an eventual update of its Comprehensive Plan.

This housing needs analysis provides a factual basis to inform both an update of the residential Comprehensive Plan polices and the Concept Plan for Sherwood West. This analysis provides:

- Information about the characteristics of Sherwood's housing market, in the context of Washington County, the Portland metropolitan region, and Oregon,
- Information about the types and density of housing developed since 2000, changes in homeownership patterns,
- Changes in housing cost and affordability, and other housing market characteristics; and
- A forecast of residential growth in Sherwood for the 2018 to 2038 period.

As required by OAR 660-024, this forecast is based on Metro’s household forecast and demographics and economic trends that will affect housing demand over the next 20 years.

ORGANIZATION OF THE REPORT

The main body of this report presents a summary of key data and analysis used in the housing needs analysis. The appendices present detailed tables and charts for the housing needs analysis. This document is organized as follows:

- **Chapter 2. Historical and Recent Development Trends** presents a high-level summary of residential development in Sherwood.
- **Chapter 3. Housing Demand and Need** presents a housing needs analysis consistent with requirements in the Planning for Residential Growth Workbook. Detailed tables and charts supporting the demographic and other information discussed in Chapter 4 is presented in Appendix B.
- **Chapter 4. Residential Land Sufficiency** estimates the residential land sufficiency in Sherwood needed to accommodate expected growth over the planning period.
- **Appendix A. Residential Buildable Land Inventory Report**
- **Appendix B. Trends Affecting Housing Need in Sherwood**

FRAMEWORK FOR A HOUSING NEEDS ANALYSIS

People view homes and communities in a wide range of ways. Economists view housing as a bundle of services for which people are willing to pay. Shelter is one service, but housing typically also includes:

- Proximity to other attractions (job, shopping, recreation),
- Amenities (type and quality of fixtures and appliances, landscaping, views), prestige, and
- Access to public services (quality of schools).

Because it is impossible to maximize all these services and simultaneously minimize costs, households must, and do, make tradeoffs. What individuals can purchase for their money is influenced by individuals' life circumstances as well as economic forces and government policy. Among households and income levels, preferences vary. Attributes homebuyers and renters seek are a function of many factors that may include income, age of household head, number of people and children in the household, number of workers and job locations, educational opportunities, number of automobiles, neighborhood amenities and so on.

Thus, the housing choices of individual households are influenced in complex ways by dozens of factors; and the housing market in the Portland Region, Washington County, and Sherwood is the result of the individual decisions of thousands of households. These points help to underscore the complexity of projecting what types of housing will be built in Sherwood between 2018 and 2038.

The complex nature of the housing market was demonstrated by the unprecedented boom and bust during the past decade. This complexity does not eliminate the need for some type of forecast of future housing demand and need and the resulting implications for land demand and consumption. Such forecasts are inherently uncertain. Their usefulness for public policy often derives more from the explanation of their underlying assumptions about the dynamics of markets and policies than from the specific estimates of future demand and need.

Thus, we begin our housing analysis with a framework for thinking about housing and residential markets, and how public policy affects those markets.

OREGON HOUSING POLICY

Statewide planning Goal 10

Sherwood's primarily obligations under Goal 10 are to:

- Designate land in a way that 50% of new housing could be either multifamily or single-family attached housing (e.g., townhouses)
 - Provide opportunities to achieve an average density of six dwelling units per net acre
 - Provide opportunities for development of needed housing types: single-family detached, single-family attached, and multifamily housing.
-

The passage of the Oregon Land Use Planning Act of 1974 (ORS Chapter 197), established the Land Conservation and Development Commission (LCDC), and the Department of Land Conservation and Development (DLCD). The Act required the Commission to develop and adopt a set of statewide planning goals. Goal 10 addresses housing in Oregon and provides guidelines for local governments to follow in developing their local comprehensive land use plans and implementing policies.

At a minimum, local housing policies must meet the requirements of Goal 10 and the statutes and administrative rules that implement it (ORS 197.295 to 197.314, ORS 197.475 to 197.490, and OAR 600-008).³ Jurisdictions located in the Metro UGB are also required to comply with Metropolitan Housing in OAR 660-007 and Title 7 of Metro's Urban Growth Management Functional Plan in the Metro Code (3.07 Title 7).

Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as "housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels." ORS 197.303 defines needed housing types:

- (a) Housing that includes, but is not limited to, attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;⁴
- (c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490; and
- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions.

³ ORS 197.296 only applies to cities with populations over 25,000.

⁴ Government assisted housing can be any housing type listed in ORS 197.303 (a), (c), or (d).

In summary, Sherwood must identify needs for all of the housing types listed above as well as adopt policies that increase the likelihood that needed housing types will be developed.

The Metropolitan Housing Rule

OAR 660-007 (the Metropolitan Housing rule) is designed to “assure opportunity for the provision of adequate numbers of needed housing units and the efficient use of land within the Metropolitan Portland (Metro) urban growth boundary.” OAR 660-0070-005(12) provides a Metro-specific definition of needed housing:

"Needed Housing" defined. Until the beginning of the first periodic review of a local government's acknowledged comprehensive plan, "needed housing" means housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels.

The Metropolitan Housing Rule also requires cities to develop residential plan designations:

(1) Plan designations that allow or require residential uses shall be assigned to all buildable land. Such designations may allow nonresidential uses as well as residential uses. Such designations may be considered to be "residential plan designations" for the purposes of this division. The plan designations assigned to buildable land shall be specific so as to accommodate the varying housing types and densities identified in OAR 660-007-0030 through 660-007-0037.

OAR 660-007 also specifies the mix and density of new residential construction for cities within the Metro Urban Growth Boundary (UGB):

“Provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing or justify an alternative percentage based on changing circumstances” (OAR 660-007-0030 (1)).

OAR 660-007-0035 sets specific density targets for cities in the Metro UGB. Sherwood average density target is six dwelling units per net buildable acre.⁵

⁵ OAR 660-024-0010(6) defines Net Buildable Acres as follows: “Net Buildable Acre” consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.

Metro Urban Growth Management Functional Plan

The Metro Urban Growth Management Functional Plan describes the policies that guide development for cities within the Metro UGB to implement the goals in the Metro 2040 Plan.

Title 1: Housing Capacity

Title 1 of Metro's Urban Growth Management Functional Plan is intended to promote efficient land use within the Metro UGB by increasing the capacity to accommodate housing capacity. Each city is required to determine its housing capacity based on the minimum number of dwelling units allowed in each zoning district that allows residential development, and maintain this capacity.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 1 responsibilities.

Title 1 requires that a city adopt minimum residential development density standards by March 2011. If the jurisdiction did not adopt a minimum density by March 2011, the jurisdiction must adopt a minimum density that is at least 80% of the maximum density.

Title 1 provides measures to decrease development capacity in selected areas by transferring the capacity to other areas of the community. This may be approved as long as the community's overall capacity is not reduced.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 1 responsibilities.

Title 7: Housing Choice

Title 7 of Metro's Urban Growth Management Functional Plan is designed to ensure the production of affordable housing in the Metro UGB. Each city and county within the Metro region is encouraged to voluntarily adopt an affordable housing production goal.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 7 responsibilities.

Each jurisdiction within the Metro region is required to ensure that their comprehensive plans and implementing ordinances include strategies to:

- Ensure the production of a diverse range of housing types,
- Maintain the existing supply of affordable housing, increase opportunities for new affordable housing dispersed throughout their boundaries, and
- Increase opportunities for households of all income levels to live in affordable housing (3.07.730)

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 7 responsibilities.

Title 11: Planning for New Urban Areas

Title 11 of Metro’s Urban Growth Management Functional Plan provides guidance on the conversion of land from rural to urban uses. Land brought into the Metro UGB is subject to the provisions of section 3.07.1130 of the Metro Code, which requires lands to be maintained at rural densities until the completion of a concept plan and annexation into the municipal boundary.

The concept plan requirements directly related to residential development are to prepare a plan that includes:

- (1) A mix and intensity of uses that make efficient use of public systems and facilities,
- (2) A range of housing for different types, tenure, and prices that addresses the housing needs of the governing city, and
- (3) Identify goals and strategies to meet the housing needs for the governing city in the expansion area.

Metro’s *2016 Compliance Report* concludes that Sherwood is in compliance for the City’s Title 11 responsibilities.

In addition, the City needs to comply with the Fair Housing Act, administered by the U.S. Department of Housing and Urban Service (HUD). Complying with this Act requires meeting the Affirmatively Furthering Fair Housing (AFFH) goal of the Fair Housing Act. The City must comply with these regulations to qualify for federal grant funds for housing.

2 Historical and Recent Development Trends

Analysis of historical development trends in Sherwood provides insights into how the local housing market functions. The intent of the analysis is to understand how local market dynamics may affect future housing—particularly the mix and density of housing by type. The housing mix and density by type are also key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands* Workbook:

1. Determine the time period for which the data must be gathered.
2. Identify types of housing to address (at a minimum, all needed housing types identified in ORS 197.303).
3. Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types.

The period used in the analysis of housing density and mix is 2000 to 2014, which includes both times of high housing production and times of low housing production. The reasons for choosing this period were:

- (1) The 2000 to 2014 period includes more than one economic cycle, with extreme highs and extreme lows in the housing market and
- (2) Data prior to 2005 was less easily available and obtaining and compiling data for 2000 to 2004 was difficult to acquire.

The housing needs analysis presents information about residential development by housing types. For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached:** single-family detached units and manufactured homes on lots and in mobile home parks.
- **Single-family attached:** all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.
- **Multifamily:** all attached structures other than single-family detached units, manufactured units, or single-family attached units. Multifamily units include duplexes, tri-plexes, quad-plexes, and structures with more than five units (such as apartments).

The reason for choosing these categories of housing type for the analysis is that they meet the requirements definition of needed housing types in ORS 197.303.⁶

In general, this report uses data from the 2009-2013 American Community Survey (ACS) for Sherwood, as described in Appendix B. Where information is available, we report information from the 2010 Decennial Census. This section summarizes historical and recent development trends, described in detail in Appendix B.

The primary geographies used throughout this report are:

- **Sherwood.** This generally refers to the Sherwood city limits. Census data for Sherwood uses this geography.
- **Sherwood Planning Area.** This is the Sherwood city limits and land that is within the Metro urban growth boundary but outside of the Sherwood city limits, primarily the Brookman Area.
- **Sherwood West.** The urban reserve to the west of Sherwood that may be brought into the Metro urban growth boundary when needed regionally and determined beneficial locally.

While this report presents the forecast for housing growth in Sherwood for the 2018-2038 period, it is based on analysis completed for the 2015 HNA.

Residential development trends⁷

Single-family detached housing makes up the largest share of Sherwood's housing stock (Figure B- 1). Currently:

- Single-family detached housing accounts for about 75% of Sherwood's housing stock.
- Single-family attached housing accounts for about 8% of Sherwood's housing stock.
- Multifamily housing accounts for about 18% of Sherwood's housing stock.

Three-quarters of Sherwood's housing is single-family detached housing.

⁶ The analysis of development in Sherwood attempts to separate single-family detached and single-family attached housing. However, the City's building permit system does not distinguish between these two types of housing. City staff manually identified single-family attached housing where there was a concentration of it developed (i.e., a development of townhouses). City staff were unable to identify small-scale single-family attached development that was scattered throughout the city.

⁷ Except where otherwise noted, data in this section is from the U.S. Decennial Census (for 2010 data) or the U.S. Census's American Community Survey for 2009-2013.

Over the 2000-2014 period, 69% of new housing permitted by Sherwood was single-family detached housing.

The majority of housing developed in Sherwood between 2000 and 2014 was single-family detached housing (Table B- 1 and Figure B- 2).⁸

- Over the 2000 to 2014 period, Sherwood issued permits for nearly 2,225 dwellings, with about 148 units permitted each year.
- Sixty-nine percent of new housing permitted in Sherwood between 2000 and 2014 was single-family. Roughly 1,721 single-family dwelling units were permitted over the 15-year period.
- Nine percent of the building permits issued in Sherwood over 2000 to 2014 were single-family attached (i.e., townhouses) and 23% were for multifamily housing.
- The majority of new housing in Sherwood was built between 2000 and 2006, before development decreased with the national housing crisis.
- The majority of new multifamily housing in Sherwood was permitted in 2006, 2009, and 2014. The majority of new single-family attached housing was permitted in 2004 and 2005.
- Between 2015 and 2017, Sherwood permitted about 125 new single-family detached units.

Almost three quarters of Sherwood’s residents own their homes (Figure B- 3, Figure B- 4, and Figure B- 5). Homeownership rates in Sherwood are above Washington County and Oregon’s averages.

- Homeownership rates declined slightly over the last decade. Roughly 79% of housing in Sherwood was owner-occupied in 2000 compared to about 75% in 2010.
- Most owner-occupied housing is single-family detached, about 89%.
- Renter-occupied housing is a mixture of multifamily (57%), single-family detached (35%), and single-family attached (9%).

Sherwood’s vacancy rate is lower than Multnomah, Washington, and Clackamas counties, and lower than the State average (Table B- 2 and Figure B- 6).

- In 2010, Sherwood’s vacancy rate (3.9%) was below that of Multnomah (6.2%), Washington (5.4%), and Clackamas (7.1%) counties, and lower than Oregon’s (9.3%).
- The vacancy rates for apartments in the Tigard/Tualatin/Sherwood area varied from a high of 5.8% in Spring 2010 to a low of 2.6% in Fall 2013

⁸ Building permit data is from the City of Sherwood Building Permit Database.

and were within 1% of the vacancy rate for the Portland/Vancouver metro area.⁹

Sherwood’s residential development between 2000 and 2014 averaged 8.2 dwelling units per net acre, above the State’s requirement in OAR 660-007 for six dwelling units per net acre (Table B- 3 Table B-4).¹⁰

- Average density in Sherwood was 8.2 dwelling units per net acre over the 2000 to 2014 period.
- Density was lowest in the Very Low Density Residential Zone (2.9 dwelling units per net acre) and Medium Density Residential Low Zone (6.1 dwelling units per net acre).
- Density was highest in Office Commercial (24.4 dwelling units per net acre) and High Density Residential (19.1 dwelling units per net acre).

⁹ Multifamily NW Apartment Reports, Spring 2010 – Fall 2014.

¹⁰ City of Sherwood Building Permit Database.

3 Housing Need in Sherwood

This chapter presents the analysis of housing needs in Sherwood over the 2018 to 2038 period. Estimates of needed units by structure type and by density range follows.

Chapter 1 described the framework for conducting a housing "needs" analysis. The specific steps in conducting a housing needs analysis are:

1. Project number of new housing units needed in the next 20 years.
2. Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type mix.
3. Describe the demographic characteristics of the population and, if possible, housing trends that relate to demand for different types of housing.
4. Determine the types of housing that are likely to be affordable to the projected households based on household income.
5. Estimate the number of additional needed units by structure type.
6. Determine the needed density ranges for each plan designation and the average needed net density for all structure types.

This chapter presents information for these steps for Sherwood's housing needs analysis.

PROJECTION OF NEW HOUSING UNITS NEEDED IN THE NEXT 20 YEARS

The housing needs analysis in this report is based on the MetroScope forecast of household growth in Sherwood over the next 25 years.

As required by OAR 660-024, the housing needs analysis in this report is based on a coordinated forecast from Metro (the Metro 2040 TAZ Forecast by Households, January 2016), which is a necessary prerequisite to estimate housing needs. The projection of household growth includes areas currently within the city limits, as well as areas currently outside the city limits that the City expects will be annexed for residential uses (most notably the Brookman area). In 2017, a portion of the Brookman area annexed into the city limits. We call these areas combined the “Sherwood planning area.”

While the housing needs analysis presents information for Sherwood West, this area is currently outside of the regional UGB. Housing need in Sherwood West is not considered part of Sherwood’s overall housing need for the purposes of this study. The information in this report, however, can inform the ongoing Concept Planning for Sherwood West.

Table B-6 in Appendix B presents Metro’s forecast for housing in Sherwood for the 2010 to 2040 period. Table 1 presents ECONorthwest’s extrapolation of Metro’s forecast for Sherwood to the 2018 to 2038 period. Table 1 shows that **the Sherwood planning area is expected to add 1,653 new households between 2018 and 2038. Regional models and informed projections suggest nearly 700 (697) new households will be accommodated inside the existing city limits. Approximately 956 new households are expected to be accommodated outside the current city limits in the Brookman Area.**

The housing needs analysis focuses on housing growth in Sherwood over the 2018 to 2038 period.

The forecast shows that Sherwood will add 1,653 new households over the 20-year period.

The forecast shows growth of 4,157 new dwelling units in Sherwood West. While Metro’s forecast assumes that growth will take place over the next 20-years, it may occur over a 50-year period.

Table 1. Extrapolated Metro forecast for household growth, Sherwood planning area, 2018 to 2038

Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2018	6,883	282	7,165	293
2038	7,580	1,238	8,818	4,450
Change 2015 to 2040				
Households	697	956	1,653	4,157
Percent	10%	339%	23%	1419%
AAGR	0.5%	7.7%	1.0%	14.6%

Source: Metro 2040 TAZ Forecast by Households, January 2016
 Extrapolation from the 2015 forecast (the base year in the Metro forecast) to 2018 (not shown in Metro’s forecast) by ECONorthwest

DEMOGRAPHIC AND SOCIOECONOMIC FACTORS AFFECTING HOUSING CHOICE

Demographic trends are important to a thorough understanding of the dynamics of the Sherwood housing market. Sherwood exists in a regional economy; trends in the region impact the local housing market. This section documents national, state, and regional demographic, socioeconomic, and other trends relevant to Sherwood.

The Factors that Affect Housing Choice

The factors that have the largest impact on a household's housing choice are: age of the householder, household size and composition, and income.

Analysts typically describe housing demand as the preferences for different types of housing (i.e., single-family detached or apartment), and the ability to pay for that housing (the ability to exercise those preferences in a housing market by purchasing or renting housing—in other words, income or wealth).

Metro, the agency responsible for regional planning within the Portland metropolitan UGB, uses a decision support tool called Metroscope to model changes in measures of economic, demographic, land use, and transportation activity. Metroscope includes a residential location model, which projects the locations of future households based on factors such as land availability and capacity, cost of development, changes in demographics, changes in employment, and changes in transportation and transit infrastructure. The housing needs analysis in this report is based on the Metroscope forecast of household growth in Sherwood over the next 25 years.

Many demographic and socioeconomic variables affect housing choice. However, the literature about housing markets finds that age of the householder, size of the household, and income are most strongly correlated with housing choice.¹¹

¹¹ The research in this chapter is based on numerous articles and sources of information about housing, including:

The Case for Multi-family Housing. Urban Land Institute. 2003

E. Zietz. *Multi-family Housing: A Review of Theory and Evidence*. Journal of Real Estate Research, Volume 25, Number 2. 2003.

C. Rombouts. *Changing Demographics of Homebuyers and Renters*. Multi-family Trends. Winter 2004.

J. McIlwain. *Housing in America: The New Decade*. Urban Land Institute. 2010.

D. Myers and S. Ryu. *Aging Baby Boomers and the Generational Housing Bubble*. Journal of the American Planning Association. Winter 2008.

M. Riche. *The Implications of Changing U.S. Demographics for Housing Choice and Location in Cities*. The Brookings Institution Center on Urban and Metropolitan Policy. March 2001.

- **Age of householder** is the age of the person identified (in the Census) as the head of household. Households make different housing choices at different stages of life.
- **Size of household** is the number of people living in the household. Younger and older people are more likely to live in single-person households. People in their middle years are more likely to live in multiple person households (often with children).
- **Income** is the household income. Income is probably the most important determinant of housing choice. Income is strongly related to the type of housing a household chooses (e.g., single-family detached, duplex, or a building with more than five units) and to household tenure (e.g., rent or own).

This section focuses on these factors, presenting data that suggests how changes to these factors may affect housing need in Sherwood over the next 20 years.

National housing trends

Appendix B presents a full review of national housing trends. This brief summary builds on previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies of Harvard University. The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing is closely tied to jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the number of underwater homeowners, delinquent loans, and vacancies remains high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

L. Lachman and D. Brett. *Generation Y: America's New Housing Wave*. Urban Land Institute. 2010.

National housing market trends include:¹²

- **Post-recession recovery slows down.** Despite strong growth in the housing market in 2012 and the first half of 2013, by the first quarter of 2014, housing starts and existing home sales were both down by 3% from the same time a year before, while existing home sales were down 7% from the year before. Increases in mortgage interest rates and meager job growth contributed to the stall in the housing market.
- **Continued declines in homeownership.** After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at about 65%. The Urban Land Institute projects that homeownership will continue to decline to somewhere in the low 60% range.
- **Housing affordability.** In 2012, more than one-third of American households spent more than 30% of income on housing. Low-income households face an especially dire hurdle to afford housing. Among those earning less than \$15,000, more than 80% paid over 30% of their income and almost 70% of households paid more than half of their income. For households earning \$15,000 to \$29,000, more than 60% were cost burdened, with about 30% paying more than half of their income on housing.
- **Changes in housing characteristics.** National trends show that the size of single-family and multifamily units, and the number of household amenities (e.g., fireplace or two or more bathrooms) has increased since the early 1990s. Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 square feet to 2,384 square feet and 18% in the western region from 1,985 square feet to 2,359 square feet. Moreover, the percentage of units smaller than 1,400 square feet nationally decreased from 15% in 1999 to 8% in 2013. The percentage of units greater than 3,000 square feet increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 2009 and 2013, the percentage of lots less than 7,000 square feet increased from 26% of lots to 30% of lots. Similarly, in the western region, the share of lots less than 7,000 square feet increased from 43% to 48% of lots.

In 2012, more than one-third of households across the US had housing affordability problems, with the lowest income households having the most difficulty finding affordable housing.

Since 1990, the average size of new dwelling units increased both for single-family and multifamily housing. At the same time, the average lot size for new housing decreased.

¹² These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "The State of the Nation's Housing 2013," (2) Urban Land Institute, "2011 Emerging Trends in Real Estate," and (3) the U.S. Census.

Future housing preferences will be affected by demographic changes, such as the aging of the Baby Boomers, growing housing demand from Millennials, and growth of foreign-born immigrants.

- **Long-term growth and housing demand.** The Joint Center for Housing Studies forecasts that demand for new homes could total as many as 13.2 million units nationally between 2015 and 2025. Much of the demand will come from Baby Boomers, Millennials,¹³ and immigrants.
- **Changes in housing preference.** Housing preference will be affected by changes in demographics, most notably the aging of the Baby Boomers, housing demand from the Millennials, and growth of foreign-born immigrants. Baby Boomers' housing choices will affect housing preference and homeownership, with some boomers likely to stay in their home as long as they are able and some preferring other housing products, such as multifamily housing or age-restricted housing developments.

In the near-term, Millennials and new immigrants may increase demand for rental units. The long-term housing preference of Millennials and new immigrants is uncertain. They may have different housing preferences as a result of the current housing market turmoil and may prefer smaller, owner-occupied units or rental units. On the other hand, their housing preferences may be similar to the Baby Boomers, with a preference for larger units with more amenities. Recent surveys about housing preference suggest that Millennials want affordable single-family homes in areas that offer transportation alternatives to cars, such as suburbs or small cities with walkable neighborhoods.¹⁴

¹³ Millennials are, broadly speaking, the children of Baby Boomers, born from the early 1980's through the early 2000's.

¹⁴ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014. "Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders Show, accessed January, 2015, <http://www.buildersshow.com/Search/isesProgram.aspx?id=17889&fromGSA=1>. "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America, accessed January 2015, http://t4america.org/wp-content/uploads/2014/04/Press-Release_Millennials-Survey-Results-FINAL-with-embargo.pdf.

State Trends

Oregon's 2011-2015 Consolidated Plan includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.¹⁵ The plan concludes that "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, as compared to the nation.
- Since 2005, is experiencing higher foreclosure rates compared with the previous two decades.
- Losing federal subsidies on about 8% of federally-subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.
- Increasingly older, more diverse, and has less affluent households.¹⁶

Regional and Local Demographic Trends

Sherwood has a growing population (Table B- 5). Sherwood's growing population will drive future demand for Sherwood over the planning period.

- Sherwood grew by more than 15,000 people, a 501% increase in population, at an average annual rate of 8.1% over the 1990 to 2013 period.¹⁷
- Sherwood grew at a faster rate than the nation as a whole (1.0% per year), Oregon (1.4% per year), and the Portland Region (1.6%) over this period.
- Metro forecasts that the number of households in the Sherwood Planning Area will grow by about 1,653 households over the 2018-2038 period, at an average annual growth rate of 0.8%.
- Metro forecasts that Sherwood West, an area that is adjacent to Sherwood but currently outside of the Metro Urban Growth Boundary, will grow by 4,157 households. Growth in Sherwood West will not begin until the area is included in the Metro UGB and annexed into Sherwood. While Metro's forecast assumes that Sherwood West may be fully

¹⁵ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

¹⁶ State of Oregon *Consolidated Plan 2011 to 2015*.
http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

¹⁷ 2013 Population Estimates in Oregon come from Portland State University's Population Research Center.

developed by 2040, it may take longer, perhaps until 2065, for Sherwood West to fully develop.

- Metro’s forecast of household growth considers residential capacity within Sherwood’s city limits to accommodate growth. Much of Sherwood’s future growth depends on bringing new land into the city limits, including the Brookman Area and Sherwood West.

The growth of younger and diversified households will result in increased demand for a wider variety of affordable housing appropriate for families with children, such as small single-family housing, townhouses, duplexes, and multifamily housing.

Sherwood’s population is younger than the state, on average (Table B- 7, Table B- 8, and Figure B- 8). Sherwood has a larger share of people younger than 30 years of age, and a relatively small share of people over 50 years. If Sherwood continues to attract young residents, then it will continue to have demand for housing for families, especially housing affordable to younger families with moderate incomes. Recent studies suggest that growth in younger residents (e.g., Millennials) will result in increased demand for both affordable single-family detached housing, as well as increased demand for affordable townhouses and multifamily housing. Growth in this population will result in growth in demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.

- In 2010, the median age in Sherwood was 34.3 years old, compared to the State median of 38.4.
- A higher percentage of Sherwood’s population is younger than 30 years (44%) compared to the state as a whole (39%). Furthermore, a smaller share of Sherwood’s population is younger than 50 years (21%), compared to the state as a whole (34%).

The aging of the population will result in increased demand for smaller single-family housing, multifamily housing, and housing for seniors.

Sherwood’s population is growing older (Figure B- 9). Although Sherwood has a smaller share of people over 50 years old than the State average, Sherwood’s population is growing older, consistent with State and national trends. Demand for housing for retirees will grow over the planning period, as the Baby Boomers continue to age and retire. However, Sherwood’s demand for housing for seniors may grow at a slower rate than across the State.

Growth of seniors will have the biggest impacts on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. These households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes), as their health fails.

- The fastest-growing age group over the 2000 to 2010 period in Sherwood was people aged 45 years and older, with the most growth in the number of people aged 45 to 64.
- In Sherwood, people aged 45 to 64 grew by 102%, from 1,936 to 3,917 people between 2000 and 2010.

- By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The percent of total population in each age group younger than 60 years old will decrease. The age distribution in the Portland Region will change in a similar pattern.¹⁸
- Given the growth of people 45 years and older in Sherwood and the forecast for growth of people 60 years and older between 2018-2038 in Washington County and the Portland Region, it is reasonable to expect that Sherwood will have growth in the senior population.

Sherwood is becoming more ethnically diverse (Figure B- 10). Growth in Hispanic and Latino population will affect Sherwood’s housing needs in a variety of ways. Growth in first and, to a lesser extent, second and third-generation Hispanic and Latino immigrants tend to increase demand for larger dwelling units to accommodate the on average larger household sizes for these households. Households for Hispanic and Latino immigrants are more likely to include multiple generations, requiring more space than smaller household sizes. As Hispanic and Latino households integrate over generations, household size typically decreases and housing needs become similar to housing needs for all households.

Growth in Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable.

- Sherwood’s Hispanic and Latino population grew by 99% from 2000 to the 2009-2013 period, from 557 to 1,107 people, increasing its share of the population from 4.7% to 6.0%.
- Nonetheless, Sherwood’s percentage of Hispanic or Latino population remains below that of the state as a whole. In the 2009-2013 period, Hispanic and Latino population accounted for 12% of the state’s population, compared to Sherwood’s average of 6.0%.

Sherwood’s household size is larger than State averages (Table B- 9). The larger household size is indicative of a larger share of households with children or multigenerational households.

- Sherwood’s average household size was 2.89 persons per household, compared with the regional average of 2.54 persons per household, and the state average of 2.49 persons per household.
- The size of households in Sherwood grew from 2000 to the 2009-2013 period (2.77 to 2.89). Over the same period, the average household size

¹⁸ Demographic forecast for Washington County by the Oregon Office of Economic Analysis.

in the Portland Region rose slightly from 2.53 to 2.54, while the State's average fell from 2.51 to 2.49.

Sherwood has a relatively high share of households with children (Figure B-11). Households with children are more likely to prefer single-family detached housing, if it is relatively affordable.

- Sherwood has a larger share of households with children (47%) than the State average (27%), the Portland Region (29%), or Washington County (33%).
- In the 2009-2013 period, Sherwood had a smaller share of single-person households (19%) than the regional average (29%).
- In the 2009-2013 period, Sherwood had a smaller share of non-family households (23%) than the regional average (38%).

Sherwood is part of a complex, interconnected regional economy (Figure B-12, Table B-11, and Table B-12). Most people working at businesses in Sherwood do not live in Sherwood. Demand for housing by workers at businesses in Sherwood may change with fluctuations in fuel and commuting costs, as well as the capacity of highways to accommodate commuting.¹⁹

- Commuting is typical throughout the region: 91% of Sherwood's working residents commuted outside the city, and about 85% of those who work in the city live outside the city itself.

Summary of the Implications of Demographic and Socioeconomic Trends on Housing Choice

The purpose of the analysis thus far has been to provide background on the kinds of factors that influence housing choice, and in doing so, to convey why the number and interrelationships among those factors ensure that generalizations about housing choice are difficult and prone to inaccuracies.

There is no question that age affects housing type and tenure. Mobility is substantially higher for people aged 20 to 34. People in that age group will also have, on average, less income than people who are older. They are less likely to have children. All of these factors mean that younger households are much more likely to be renters, and renters are more likely to be in multifamily housing.

The data illustrate what more detailed research has shown and what most people understand intuitively: life cycle and housing choice interact in ways that are predictable in the aggregate; age of the household head is correlated with household size and income; household size and age of household head affect housing preferences; income affects the ability of a household to afford a

¹⁹ US Census Bureau, LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

preferred housing type. The connection between socioeconomic and demographic factors and housing choice is often described informally by giving names to households with certain combinations of characteristics: the "traditional family," the "never marrieds," the "dinks" (dual-income, no kids), the "empty nesters."²⁰ Thus, simply looking at the long wave of demographic trends can provide good information for estimating future housing demand.

Thus, one is ultimately left with the need to make a qualitative assessment of the future housing market. The following is a discussion of how demographic and housing trends are likely to affect housing Sherwood over the next 20 years:

- **Growth in housing will be driven by growth in population.** Between 2000 and the 2009-2013 period, the number of housing units in Sherwood increased by 47% from about 4,500 to 6,600 (Figure B- 4), while its population grew by roughly 55% from 11,963 to 18,575 from 2000 to 2013 (Table B- 5).²¹
- **On average, future housing will look a lot like past housing.** That is the assumption that underlies any trend forecast, and one that allows some quantification of the composition of demand for new housing. As a first approximation, the next three to five years of residential growth will look a lot like the last three to five years.
- **If the future differs from the past, it is likely to move in the direction (on average) of smaller units and more diverse housing types.** Most of the evidence suggests that the bulk of the change will be in the direction of smaller average house and lot sizes for single-family housing.

Key demographic trends that will affect Sherwood's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, (3) growth of family households, and (4) continued growth in Hispanic and Latino population.

- *The Baby Boomer's population is continuing to age.* By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The changes that affect Sherwood's housing demand as the population ages are that household sizes decrease and homeownership rates decrease.
- *Millennials will continue to age.* By 2035, Millennials will be roughly between about 35 years old to 55 years old. As they age, generally speaking, their household sizes will increase and homeownership rates will peak by about age 55. Between 2018 and 2038,

²⁰ See *Planning for Residential Growth: A Workbook for Oregon's Urban Areas* (June 1997).

²¹ 2013 Population Estimates come from come from the Portland State University Population Research Center's Annual Population Estimates.

Millennials will be a key driver in demand for housing for families with children.

- *Growth of households with children.* Sherwood has an unusually high percentage of households with children, compared to the regional averages. If Sherwood continues to attract families with children, demand for housing for families, such as affordable single-family detached or townhouses, will increase.
- *Hispanic and Latino population will continue to grow.* The U.S. Census projects that by about 2040, Hispanic and Latino population will account for more than one-quarter of the nation's population. The share of Hispanic and Latino population in the western U.S. is likely to be higher. Growth in Hispanic and Latino population will drive demand for housing for families with children. Given the lower income for Hispanic and Latino households,²² growth in this group will also drive demand for affordable housing, both for ownership and renters.

In summary, an aging population, increasing housing costs, housing affordability concerns for Millennials and the Hispanic and Latino populations, and other variables are factors that support the conclusion of smaller and less expensive units and a broader array of housing choices.

Millennials and immigrants will drive demand for affordable housing types, including demand for small, affordable single-family units (many of which may be ownership units) and for affordable multifamily units (many of which may be rental units).

- **No amount of analysis is likely to make the distant future any more certain: the purpose of the housing forecasting in this study is to get an approximate idea about the future so policy choices can be made today.** Economic forecasters regard any economic forecast more than three (or at most five) years out as highly speculative. At one year, one is protected from being disastrously wrong by the shear inertia of the economic machine. But a variety of factors or events could cause growth forecasts to be substantially different.

²² The following article describes household income trends for Hispanic and Latino families, including differences in income levels for first, second, and third generation households. In short, Hispanic and Latino households have lower median income than the national averages. First and second generation Hispanic and Latino households have median incomes below the average for all Hispanic and Latino households.

Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012

REGIONAL AND LOCAL TRENDS IN HOUSING COSTS AND AFFORDABILITY

Sherwood's income is higher than state averages (Figure B- 19). Income is a key determinant of housing affordability. Since 2000, Sherwood's income has decreased (in inflation-adjusted dollars), consistent with state trends.

- Sherwood's median household income (\$78,400) was about 55% higher than the state median (\$50,229) in the 2009-2013 period.
- Inflation-adjusted income for households in Sherwood decreased by about 10% from about \$87,500 in 2000 to \$78,400 (in 2013 dollars) from 2000 to the 2009-2013 period. This is consistent with state and regional trends.
- Poverty rates increased in Sherwood from 2.7% of the population below poverty in 2000 to 7.6% in 2010. The increase is consistent with state and regional trends.
- Sherwood had a smaller share of population below the federal poverty line in the 2009-2013 period (7.6%) than the state average (16.2 %).

Homeownership costs have increased in Sherwood (Figure B- 13, Figure B- 14, Figure B- 15 and Figure B- 16). Sales prices for single-family housing increased over the period from 2004 to 2014, consistent with national trends. While housing prices peaked in 2007, before falling during the recession, sales prices grew by about 30% from 2004 to 2014. Sales prices have continue to increase through 2017 and may be above the 2007 peak.

The increases in housing costs have made Sherwood less affordable than most other communities on the southwest side of Portland.

- Median sales prices for homes in Sherwood increased by about 30% between 2004 and 2014, from about \$245,000 to \$318,000.²³
- As of January 2015, median sales prices in Sherwood were about \$316,500, higher than in Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$237,300). Median sales prices were higher in Sherwood than in other Portland westside communities such as Tigard, Tualatin, and Beaverton but lower than Wilsonville or West Linn.
- Prices per square foot rose in Sherwood from \$130 per square foot in October 2004 about \$170 dollars in October 2014, comparable to the price in Washington County and the Portland Region (both about \$170). The cost of housing per square foot was comparable in Sherwood to other

Housing costs in Sherwood increased by 30% since 2000.

Sales prices in Sherwood are higher than the regional averages.

²³ Recent median home sale price, including price per square foot, comes from Zillow Real Estate Research.

cities on the southwest side of Portland, such as Tigard, Tualatin, Beaverton, and Wilsonville.

- The sales price data suggest that, overall, owner-occupied housing being produced in Sherwood was more expensive because it is larger than housing built in other cities in the southwestern Portland area.
- The ratio of home value to income increased by 32% from 2000 to 2009-2013. In 2000, the median home value was 2.9 times the median household income. By 2009-2013, the median home value was 3.8 times the median household income. In comparison, in 2009-2013, the typical value of an owner-occupied house in Washington County was 4.4 times the median income and the state average was 4.74 times the median income.

Rental costs are about 25% higher than the regional average.

Rental costs are higher in Sherwood than the average in Washington County, with a slightly lower rental cost on a cost per square foot basis (Table B- 14, and Figure B- 17 and Figure B- 18).

- The median contract rent in Sherwood in the 2009-2013 period was \$1,064, compared to Washington County’s average of \$852.
- Average rent in the Tigard/Tualatin/Sherwood area submarket was \$1.13 per square foot in Fall 2014, lower than the regional average of \$1.22 per square foot. Between Spring 2010 and Spring 2013, average rent in Tigard/Tualatin/Sherwood area increased by 38%, consistent with the regional increase of 36%.

More than one-third of Sherwood’s households have housing affordability problems, similar to regional averages.

More than one-third of Sherwood’s households have housing affordability problems (Figure B- 20 and Figure B- 21).

- Thirty-eight percent of Sherwood’s households were cost burdened (i.e., paid more than 30% of their income on rent or homeownership costs) in the 2009-2013 period.²⁴ This is consistent with the state averages.
- Roughly 40% of Sherwood’s renter households were cost burdened in the 2009-2013 period. About one-fifth of renters were severely cost burdened (i.e., pay more than 50% of their income on rent).
- About 35% of Sherwood’s homeowners were cost burdened in the 2009-2013 period. Only about 1% of homeowners were severely cost burdened (i.e., paid more than 50% of their income on homeownership costs).

²⁴A household is considered cost burdened if they pay more than 30% of their gross income on housing costs. For renters, housing costs include the following: monthly rent, utilities (electricity, gas, and water and sewer), and fuels (wood, oil, etc.). For homeowners, housing costs include the following: mortgage payments, real estate taxes, insurance, mobile home costs, condominium fees, utilities, and fuels.

- When considering housing and transportation costs combined, the average household in Sherwood spends 54% of its income on housing costs and transportation costs. Metro considered a household that spends 45% or more of its income on transportation and housing as paying more they can afford. For context, the average households in Tualatin, Wilsonville, and Tigard pay 50% to 52% of their income for housing and transportation costs.

Future housing affordability will depend on the relationship between income and housing price. Households in Sherwood generally have higher than average incomes and housing prices are higher than average. In addition, Sherwood is at the edge of the Metro UGB, making transportation costs higher for households in Sherwood, compared to households who live in more central parts of the region. Determining whether housing in Sherwood will be more or less affordable is difficult to answer when based on historical data. The key questions are whether housing prices will continue to outpace income growth and whether transportation costs will continue to grow in the future.

FORECAST OF HOUSING BY TYPE AND DENSITY OF HOUSING

Table 2 shows the forecast of needed housing units in Sherwood based on the total estimate of housing need shown in Table 1. The forecast in Table 2 assumes: that the forecast for new housing will be: 50% single-family detached, 10% single-family attached, and 40% multifamily. This forecast is consistent with the requirements of OAR 660-007-0035.

The forecast shows increased demand for lower-cost housing types such as single-family attached and multifamily units, which meets the needs resulting in the changing demographics in Sherwood and the Portland region. The changes in demographics are the aging of the Baby Boomers, growth in Millennial households, and increases in ethnic diversity. The previous section described these trends and the implications for housing need in Sherwood.

Table 2. Forecast of needed housing units by mix, Sherwood planning area, 2018-2038

Housing Type	New Dwelling Units (DU)	Percent
Single-family detached	827	50%
Single-family attached	165	10%
Multifamily	661	40%
Total	1,653	

Source: ECONorthwest

The assumed housing mix meets the requirement of OAR 660-007-0030 to “designate sufficient buildable land to provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing.”

The needed density in Sherwood is consistent with the densities achieved in residential zones Sherwood over the 2000-2014 period (Table B-4). These densities are:

- Very Low Density Residential (VLDR): 2.9 dwelling units per net acre
- Low Density Residential (LDR): 6.5 dwelling units per net acre²⁵
- Medium Density Residential – Low (MDRL): 6.1 dwelling units per net acre

²⁵ The historical density achieved in LDR, 6.5 dwelling units per acre, is higher than the maximum allowable density in LDR, 5 dwelling units per net acre. This fact can be explained in large part by the fact that 60% of new development in LDR was part of a Planned Unit Development (PUD), which averaged 7.6 dwelling units per acre.

- Medium Density Residential – High (MDRH): 7.7 dwelling units per net acre
- High Density Residential (HDR): 19.1 dwelling units per net acre

These densities, when applied to Sherwood’s supply of buildable land in the capacity analysis (Table 6) results in an overall density of 7.3 dwelling units per net acre. This housing density meets the requirements of OAR 660-007-0035 to “provide for an overall density of six or more dwelling units per net buildable acre.”

Table 3 allocates the needed housing units to Sherwood’s zones. The allocation is based on allowed uses in Sherwood’s zoning code, historical development trends, and Sherwood’s inventory of vacant buildable residential land.

Table 3. Allocation of needed housing units to zones, Sherwood planning area, 2018-2038

	Zone					Total
	Very Low Density Residential	Low Density Residential	Medium Density Residential-Low	Medium Density Residential-High	High Density Residential	
Dwelling Units						
Single-family detached	90	174	430	116	17	827
Single-family attached	-	-	-	99	66	165
Multifamily	-	-	83	229	349	661
Total	90	174	513	444	432	1,653
Percent of Units						
Single-family detached	5%	11%	26%	7%	1%	50%
Single-family attached	0%	0%	0%	6%	4%	10%
Multifamily	0%	0%	5%	14%	21%	40%
Total	5%	11%	31%	27%	26%	100%

Source: ECONorthwest

Needed housing by income level

Step four of the housing needs analysis is to develop an estimate of need for housing by income and housing type. This requires an estimate of the income distribution of current and future households in the community. The estimates presented in this section are based on (1) secondary data from the Census, and (2) analysis by ECONorthwest.

The analysis in Table 4 based on American Community Survey data about income levels in Sherwood, using income information shown in Table B- 17. Income is categorized into market segments consistent with HUD income level categories, using the Portland Region’s 2014 Median Family Income (MFI) of \$69,400. Table 4 is based on current household income distribution, assuming approximately that the same percentage of households will be in each market segment in the future.

Based on Sherwood’s current household income distribution, Table 4 shows that about 31% of households in Sherwood have incomes below 80% of the MFI. These households will need a range of housing, such as lower-cost single-family detached housing, townhouses, manufactured homes, or multifamily housing. These households will predominantly be renters. Sixty-nine percent of households have incomes above 80% of MFI. These households will be a mix of owners and renters. Their housing needs will include single-family detached, townhouses, and multifamily housing.

Growth in lower-income demographic groups, such as the Millennials, or in Baby Boomers who want to downsize their homes, may increase demand for smaller single-family detached houses, townhouses, and multifamily housing.

Table 4. Estimate of needed new dwelling units by income level, Sherwood, 2018-2038

Market Segment by Income	Income Range	Number of households	Percent of Households	Attainable		
				Owner-occupied	Renter-occupied	
High (120% or more of MFI)	\$83,280 or more	693	42%	All housing types; higher prices	All housing types; higher	
Upper Middle (80%-120% of MFI)	\$55,520 to \$83,280	446	27%	All housing types; lower values	All housing types; lower values	Primarily New Housing
Lower Middle (50%-80% of MFI)	\$34,700 to \$55,520	222	13%	Single-family attached; condominiums; duplexes; manufactured on lots	Single-family attached; detached; manufactured on lots;	Primarily Used Housing
Lower (30%-50% of less of MFI)	\$20,820 to \$34,700	112	7%	Manufactured in parks	Apartments; manufactured in parks; duplexes	
Very Low (Less than 30% of MFI)	Less than \$20,820	180	11%	None	Apartments; new and used government assisted housing	

Source: ECONorthwest
 MFI is Median Family Income

Need for government assisted and manufactured housing

ORS 197.303 requires cities to plan for government-assisted housing, manufactured housing on lots, and manufactured housing in parks.

- **Government-assisted housing.** Government subsidies can apply to all housing types (e.g., single family detached, apartments, etc.) Sherwood allows development of government-assisted housing in all Residential zones, with the same development standards for market-rate housing. This analysis assumes that Sherwood will continue to allow government-assisted housing in all its Residential zones. Because government-assisted housing is similar in character to other housing (with the exception of the subsidies), it is not necessary to develop separate forecasts for government-assisted housing.
- **Manufactured housing on lots.** Sherwood allows manufactured housing in all residential zones as a permitted use. As manufactured homes are allowed as a permitted use in all zones, it is not necessary to develop separate forecasts for manufactured housing on lots.
- **Manufactured housing in parks** (Table B- 13). OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high-density residential development. According to the Oregon Housing and Community Services' Manufactured Dwelling Park Directory,²⁶ Sherwood has four manufactured dwelling parks:
 - Carriage Park Estates with 58 spaces, all occupied
 - Crown Court with 14 spaces, except for one vacancy
 - Orland Villa with 24 spaces, all occupied
 - Smith Farm Estates with 90 spaces, all occupied

ORS 197.480(2) requires Sherwood to project need for mobile home or manufactured dwelling parks based on: (1) population projections, (2) household income levels, (3) housing market trends, and (4) an inventory of manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential.

- Table 1 shows that the Sherwood planning area will grow by 1,653 dwelling units over the 2018 to 2038 period.
- Analysis of housing affordability (in Table 4) shows that about 18% of Sherwood's new households will be low income, earning 50% or less

²⁶ Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>

of the County's median family income. One type of housing affordable to these households is manufactured housing.

- Manufactured housing in parks accounts for about 2.4% (258 dwelling units) of Sherwood's current housing stock, according to 2009-2013 Census data.
- National, state, and regional trends during the 2000 to 2010 period showed that manufactured housing parks were closing, rather than being created. For example, between 2003 and 2010, Oregon had a statewide decrease of 25% in the number of manufactured home parks. The trend of closing of manufactured housing parks slowed during the housing recession but is likely to increase as housing prices and land prices increase.
- The longer-term trend for closing manufactured home parks is the result of manufactured home park landowners selling or redeveloping their land for uses with higher rates of return, rather than lack of demand for spaces in manufactured home parks. Manufactured home parks contribute to the supply of lower-cost affordable housing options, especially for affordable home ownership. The trend in closure of manufactured home parks increases the shortage of manufactured home park spaces. Without some form of public investment to encourage continued operation of existing manufactured home parks and construction of new manufactured home parks, this shortage will continue.

Table 4 shows that the households most likely to live in manufactured homes in parks are those with incomes between \$20,820 and \$34,700 (30 to 50% of median family income). Assuming that about 1.5% to 2.5% of Sherwood's new households (1,653 new dwellings) choose to live in manufactured housing parks, the City may need 25 to 41 new manufactured home spaces. At an average of 8 dwelling units per net acre, this results in demand for 3.1 to 5.2 acres of land.

The City allows development of manufactured housing parks in MDRL zones, where the City has 66 vacant suitable buildable acres of land. Development of a new manufactured home park in Sherwood over the planning period seems unlikely. The land needed for development of a manufactured housing park is part of the forecast in Table 2.

4 Residential Land Sufficiency

This chapter presents an evaluation of the sufficiency of vacant residential land in Sherwood to accommodate expected residential growth over the 2018 to 2038 period. This chapter includes an estimate of residential development capacity (measured in new dwelling units) and an estimate of Sherwood's ability to accommodate needed new housing units for the 2018 to 2038 period. The chapter also includes conclusions and recommendations based on the results of the housing needs analysis.

RESIDENTIAL BUILDABLE LAND

Table 5 presents the City's inventory of buildable land. The buildable lands inventory is based on City of Sherwood and Metro GIS data. Appendix A presents a complete description of the methodology used to develop the buildable lands inventory. The key assumptions in the inventory are:

- **Vacant land** was defined as land that is fully vacant (as determined by Metro's Regional Land Information System (RLIS) GIS data and local data), or tax lots that are at least 95% vacant, or tax lots that have less than 2,000 square feet developed, with development covering less than 10% of the entire lot.
- **Unbuildable land** was removed from the inventory, including land with: public tax exemptions (i.e., land owned by the city or state), schools, churches, and other tax-exempt social organizations, private streets, rail properties, parks, and tax lots that do not meet the City's requirements for infill development.
- **Environmental resources and constraints** were deducted from the inventory of vacant land, including floodways and slopes over 25%.
- **Future rights-of-way** were accounted for based on lot sizes, with tax lots larger than one acre assumed to have 18.5% of land set aside for future rights-of-way.

Table 5 shows that Sherwood has 175 net acres of suitable buildable residential land. Fifty-five percent of Sherwood's vacant land (96 acres) is within the city limits and 45% (79 acres) is within the Brookman Area or other unincorporated areas within the current Urban Growth Boundary.

Table 5. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014

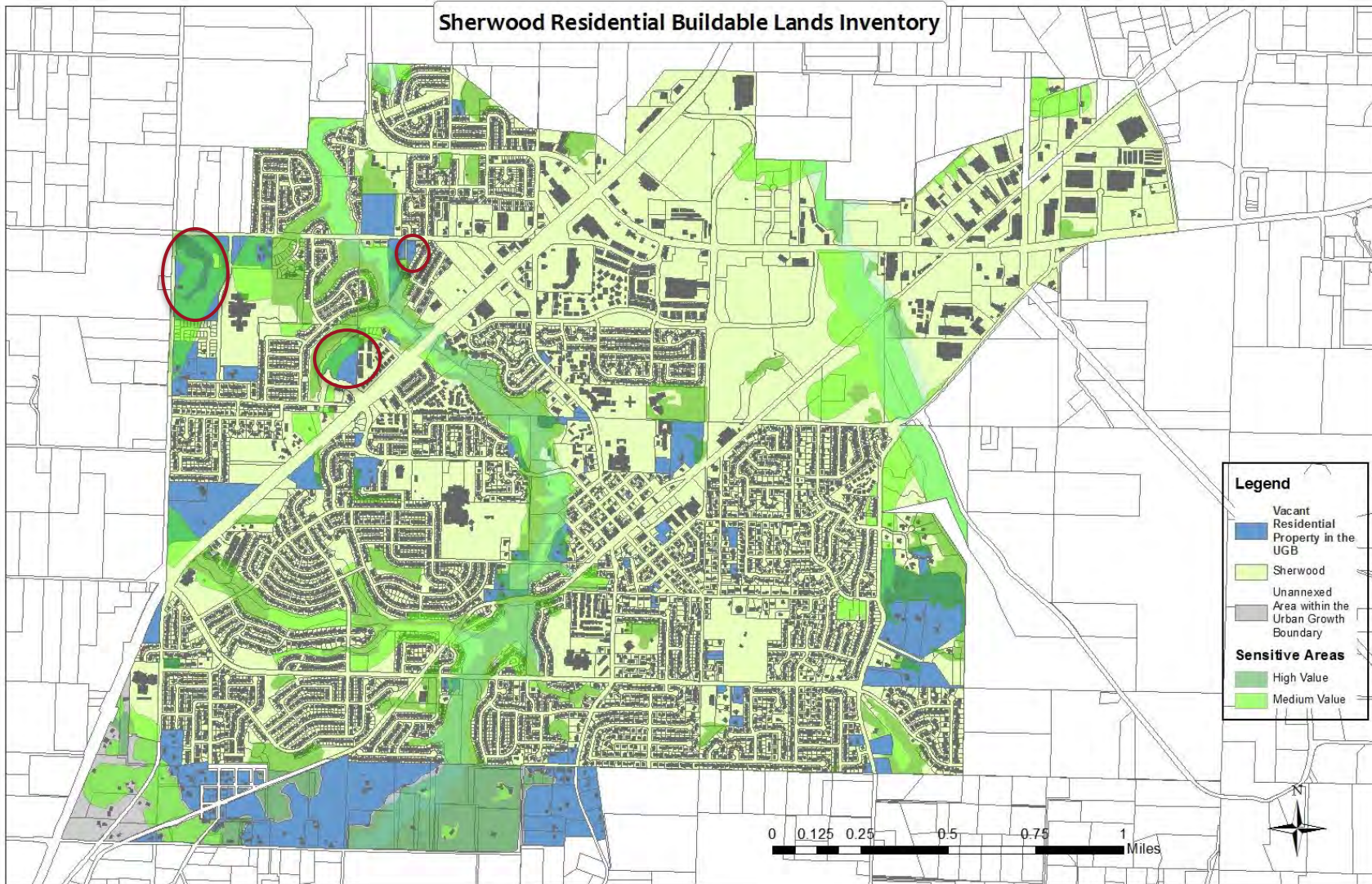
Zone	Gross Acres	Percent of Total
Land within City Limits		
Very Low Density Residential (VLDR)	24	14%
Very Low Density Residential Planned Unit Development (VLDR-PUD)	1	1%
Low Density Residential (LDR)	22	13%
Medium Density Residential-Low (MDRL)	14	8%
Medium Density Residential-High (MDRH)	21	12%
High Density Residential (HDR)	14	8%
Subtotal	96	55%
Brookman and Other Unincorporated Areas		
Very Low Density Residential (VLDR)	1	1%
Medium Density Residential-Low (MDRL)	52	30%
Medium Density Residential-High (MDRH)	8	4%
Medium Density Residential- Low/High* (MDRL/H)	15	8%
High Density Residential (HDR)	3	2%
Subtotal	79	45%
Total	175	100%

Source: City of Sherwood

*Note: There is one lot split between MDRL and MDRH.

Map 1 shows the inventory of vacant and partially vacant land in Sherwood. Notable areas where development has occurred since 2014 are circled in red on Map 1. In total, 125 new single-family detached units were permitted between January 1, 2015 and October 31, 2017.

Map 1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014



Source: City of Sherwood

RESIDENTIAL DEVELOPMENT CAPACITY

This section presents a summary of the analysis used to estimate Sherwood's residential development capacity.

The capacity analysis estimates the number of new dwelling units that can be accommodated on Sherwood's residential land supply.²⁷ The capacity analysis evaluates ways that vacant suitable residential land may build out by applying different assumptions.

In short, land capacity is a function of buildable land, housing mix (as determined by plan designation or zoning), and density. The basic form of any method to estimate capacity requires (1) an estimate of *buildable* land, and (2) assumptions about density. The arithmetic is straightforward:

$$\text{Buildable Land (ac)} * \text{Density (du/ac)} = \text{Capacity (in dwelling units)}$$

For example:

$$100 \text{ acres} * 8 \text{ du/ac} = 800 \text{ dwelling units of capacity}$$

The example is a simplification of the method, which skips some of the nuances that can be incorporated into a detailed capacity analysis such as variations in densities and housing mix among different Comprehensive Plan Designations.

Capacity analysis results

The capacity analysis estimates the development potential of vacant residential land to accommodate new housing based a range of density assumptions by zoning designation. Table 6 shows the capacity of Sherwood's residential land based on the buildable vacant and partially vacant land in Sherwood and a range of potential density assumptions.

The analysis of capacity in Table 6 is meant to illustrate the potential capacity of Sherwood's land based on current development policies and on historical development densities. Table 6 shows development capacity using: (1) the minimum allowable densities and (2) the maximum allowable densities (ensuring that lots meet the minimum lot size requirements. Table 6 also shows capacity based on historical densities.

- **Buildable Acres.** The Buildable Lands Inventory identified 175 net acres of vacant and partially vacant land, with 96 acres within Sherwood's city

²⁷ In this report, the term "capacity analysis" is used as shorthand for estimating how many new dwelling units the vacant residential land in the UGB is likely to accommodate.

limits and 79 acres in the Brookman and other unincorporated areas within the Metro UGB.

- **Capacity based on Zoning: Minimum Densities.** The analysis considered the capacity of Sherwood's land based on minimum densities in Sherwood's zoning code. This analysis shows that Sherwood has capacity of 940 new dwelling units at 5.4 dwelling units per net acre based on minimum zoning in all districts.
- **Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes.** The analysis considered the capacity of Sherwood's land based on maximum densities in Sherwood's zoning code and the minimum lot size. This analysis was developed based on parcel-specific data. The amount of buildable land was identified in each parcel and the potential capacity was evaluated based on development standards in Sherwood's zoning code.

The maximum capacity estimate estimates the capacity of Sherwood's land based on the maximum density allowed by zone by parcel, assuming that each parcel of buildable land meets the minimum lot size of the zone it is in.

Table 6 shows that Sherwood's buildable land has capacity to accommodate 1,510 new dwelling units under these assumptions. This estimate results in an overall average of 8.6 dwelling units per net acre. About 44% of Sherwood's development capacity is in the Brookman area and other unincorporated areas within the Metro UGB.

- **Historical Development Densities.** The analysis considered the capacity of Sherwood's land based on historical development density by zone. In this analysis, we applied the historical density to the total vacant land in each zone to estimate the number of dwelling units that could be accommodated.

Table 6 shows that Sherwood's buildable land has capacity to accommodate 1,286 new dwelling units based on historical development densities. This estimate results in an overall average of 7.3 dwelling units per net acre. About 44% of Sherwood's development capacity is in the Brookman area and other unincorporated areas within the Metro UGB.

Table 6. Range of capacity estimates, Sherwood vacant and partially vacant land, gross acres and gross densities, 2015

Zone	Buildable Acres	Capacity based on Zoning: Minimum Densities		Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes		Capacity based on Historical Development Densities		Difference in Capacity between Maximum Densities and Historical Densities	
		Dwelling units	Derived Density	Dwelling units	Derived Density	Density Assumption	Dwelling units	Difference in Dwelling Units	Difference in Density
Land within City Limits									
VLDR	24	19	0.8	94	3.9	2.9	69	25	1.0
VLDR_PUD	1	-	-	4	3.8	2.9	3	1	0.9
LDR	22	71	3.2	113	5.1	6.5	144	(31)	(1.4)
MDRL	14	75	5.2	112	7.8	6.1	88	24	1.7
MDRH	21	111	5.3	223	10.7	7.7	161	62	3.0
HDR	14	224	16.0	303	21.7	19.1	266	37	2.6
Subtotal	96	500	5.2	849	8.8		731	118	8.8
Brookman and Other Unincorporated Areas									
VLDR	1	2	1.6	4	3.2	2.9	3	1	0.3
MDRL	52	275	5.3	401	7.7	6.1	317	84	1.6
MDRH	8	36	4.7	62	8.1	7.7	58	4	0.4
MDRL/H*	15	78	5.3	109	7.5	7.5	109	-	-
HDR	3	49	15.4	70	22.1	19.1	60	10	3.0
Subtotal	79	440	5.6	661	8.4		547	114	8.4
Total	175	940	5.4	1,510	8.6	7.3	1,278	232	1.3

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

*Note: There is one lot in the Brookman Area that is split zoned MDRL/MDRH. Of this 15 acre lot, 13 acres is assumed MDRH and two acres is assumed MDRL. The density assumptions for that lot are consistent with the density assumptions shown in Table 6.

Table 6 compares the difference in the capacity estimates for the “maximum density (and minimum lot size) capacity” estimate and the “historical development density” estimate. Table 6 shows that the capacity estimate based on historical development densities results in 224 fewer dwelling units than the capacity based on maximum densities. The average density using the historical development densities is 1.3 dwelling units per acre lower than the maximum density analysis.

This difference shows that development in Sherwood is generally occurring at lower than the maximum allowed densities, showing underbuild in Sherwood. Further analysis shows that residential development between 2000 and 2014 occurred at between 70% to 80% of the maximum allowable densities. The exception is Low Density Residential, where development occurred at higher than allowable densities approximately 60% of LDR development between 2000 and 2014 was in Planned Unit Developments – neighborhoods that were approved to provide a more compact development option.

Underbuild is expected as a result of development constraints that lower development capacity, such as slopes. In addition, parcel configuration contributes to underbuild, with parcels that are oddly shaped or have more land than the minimum requirement but not enough for additional housing.

Table 6 demonstrates that development in Sherwood occurred at considerably higher densities than the minimum allowable densities in each zone.

Based on the analysis in Table 6, we conclude that **both the maximum density (and minimum lot size) and the historical development density estimates exceed the State requirement (OAR 660-007-0035(2))** to “provide for an overall

density of six or more dwelling units per net buildable acre.” The estimate results in an average density of between 7.3 to 8.6 dwelling units per net acre.

The conclusion of the housing needed analysis is that Sherwood’s historical densities meet Sherwood’s future housing needs.

In addition to the capacity shown in Table 6, Sherwood could have additional residential development capacity resulting in development of housing in commercial zones and from redevelopment of residential properties with existing development (where redevelopment results in a net increase in the number of dwelling units on the property).

About 9% of Sherwood’s residential development over the 2000 to 2014 period occurred in commercial zones. It is reasonable to assume that some residential development over the next 20 years would occur in commercial zones, as long as housing is considered a secondary use to the commercial use, as required by Sherwood’s development code.

Sherwood has limited opportunities for redevelopment because much of Sherwood’s housing stock was developed over the last two decades. In addition, residential land in Sherwood is parcelized and meeting existing density requirements in areas with existing development would be difficult.

Table 7 presents a revision of the capacity shown in Table 6 for capacity based on historical densities. Between January 1, 2015 and October 31, 2017, Sherwood issued 125 permits for housing, all in the MDRL, MDRH, and HDR zones. Table 7 reduces the capacity estimate by 125 units, resulting in a capacity of 606 units on land within the city limits.

Table 7. Revised capacity based on historical development densities accounting for building permits issued in 2015 to 2017, dwelling units, 2017

Zone	Capacity based on		Revised Capacity
	Historical Development Densities	Building Permits Issued 2015 to 2017	
Land within City Limits			
VLDR	69		69
VLDR_PUD	3		3
LDR	144		144
MDRL	88	24	64
MDRH	161	27	134
HDR	266	74	192
Subtotal	731	125	606

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

Table 8 summarizes Sherwood’s development capacity based on the analysis in Table 6 (using the Historical Densities analysis) and reduction in capacity for development between 2015 and 2017 in Table 7.

Table 8. Summary of development capacity based on changes from 2015 to 2017, dwelling units, Sherwood city limits and Brookman and other Unincorporated areas, 2017

	Buildable Acres	Density Assumption	Dwelling units
Very Low Density Residential	26	2.9	76
Low Density Residential	22	6.5	144
Medium Density Residential-Low	68	6.1	392
Medium Density Residential-High	41	7.7	291
High Density Residential	17	19.1	253
Total	175	6.6	1,156

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

RESIDENTIAL LAND SUFFICIENCY

The last step in the analysis of the sufficiency of residential land within Sherwood is to compare the demand for land by zone (Table 3) with the capacity of land by zone based on historical development densities (Table 6 and Table 7). Table 9 shows that Sherwood has a deficit of capacity in each zone, for a total deficit of about 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units), Medium Density Residential-High (153 dwelling units), and High Density Residential (179 dwelling units).

Table 9. Comparison of capacity of existing residential land with demand for new dwelling units, dwelling units, Sherwood planning area, 2018-2038

Zone	Capacity (Needed Densities)	Housing Demand	Comparison Capacity minus
Very Low Density Residential	76	90	-14
Low Density Residential	144	174	-30
Medium Density Residential-Low	392	513	-121
Medium Density Residential-High	291	444	-153
High Density Residential	253	432	-179
Total	1,156	1,653	-497

Source: ECONorthwest
 Note: DU is dwelling unit.

POTENTIAL GROWTH IN SHERWOOD WEST

Development capacity in Sherwood West will vary from 3,300 to 6,500 dwelling units. The Concept Plan will begin to identify housing types and development scenarios that fit with the community's vision for Sherwood West and that are possible, given likely development and infrastructure costs

The Concept Planning work for Sherwood West is ongoing. The results of the Concept Planning work and later concept and master planning phases will determine more precisely the type and amount of housing in Sherwood West. Table 10 presents estimates of capacity in Sherwood West based on a range of density assumptions, from an average of 6.0 to 12.0 dwelling units per acre. The purpose of the information in Table 10 is to provide some idea of potential development capacity in Sherwood West.

The timing of development in Sherwood West is being discussed through the Concept Planning process. A number of factors will affect the timing of development in Sherwood West, such as when the area is brought into the Metro UGB, provisions of services, and future concept planning for the area. Sherwood West may not be fully built out until 2065. The areas expected to develop first in Sherwood West are Areas A, B, and a portion of C in the Concept Plan, which are located in the southeast part of Sherwood West, adjacent to the Brookman Area. The Sherwood School District has plans to develop a high school in Area A in the next few years.

Table 10. Potential residential development capacity, Sherwood West

	Dwelling Units	Notes
Estimate of Buildable Land		
Gross Acres	670	
Net Acres	546	We assumed an average net-to-gross factor of 18.5% for rights-of-way, regardless of parcel size.
Potential Capacity based on Density Assumptions		
Required average from OAR 660-007 - 6 DU/net acre	3,276	Under this assumption, Sherwood West would be primarily built-out with single-family detached housing. Given Sherwood's historical development densities and the City's requirement to provide opportunity that half of new development is single-family attached and multifamily, this density seems too low for Sherwood West. Issues related to costs of services and development density will be discussed in the pre-concept planning process (and again in the concept planning process) may indicate that this density assumption is too low to support development costs for Sherwood West.
Historical Development Density* - 7.8 DU/net acre	4,259	Issues related to costs of services and development density will be discussed in the pre-concept planning process (and again in the concept planning process) may indicate that this density assumption is too low to support development costs for Sherwood West.
10 DU/net acre	5,460	Metro's forecast for capacity in Sherwood West (4,844) would be accommodated at an average of 10 dwelling units per acre, with some additional capacity for other development.
12 DU/net acre	6,552	

Source: Buildable Lands Estimate from OTAK and analysis by ECONorthwest

*Note: Historical Development Density includes only development in residential zones over the 2000-2014 period.

CONCLUSIONS AND RECOMMENDATIONS

The key findings and recommendations from the housing needs analysis are as follows:

Sherwood is able to accommodate 70% of the forecast for growth within the Sherwood Planning Area.

- **Sherwood is able to meet state requirements.** The City's primary obligations are to (1) designate land in a way that 50% of new housing could be either multifamily or single-family attached housing (e.g., townhouses) and (2) achieve an average density of six dwelling units per net acre. Put another way, the City is required to plan that 50% of their new housing will be multifamily or single-family attached housing (e.g., townhouses), with all housing at an average density of 6 dwelling units per net acre. Sherwood is able to meet these requirements.
- **Sherwood is meeting its obligation to plan for needed housing types for households at all income levels.** Sherwood's residential development policies include those that allow for development of a range of housing types (e.g., duplexes, manufactured housing, and apartments) and that allow government-subsidized housing. This conclusion is supported by the fact that Metro's 2016 *Compliance Report* concluded that Sherwood was in compliance with Metro Functional Plan and Title 7 (Housing Choice). Sherwood will have an ongoing need for providing affordable housing to lower-income households.
- **Sherwood has a deficit of land for housing.** Sherwood can accommodate about 70% of the forecast for new housing on areas within the city limits and Brookman Area. However, Sherwood has a deficit of land for 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units), Medium Density Residential-High (153 dwelling units), and High Density Residential (179 dwelling units).
- **To provide adequate supply, Sherwood will need to continue to annex the Brookman area.** Sherwood will need to continue to annex the Brookman area in order to accommodate the City's forecast of residential growth. The City recently annexed about 98 acres in the Brookman Area. The annexed land is in the center of the Brookman Area and has relatively few owners (about 8 property owners). Annexing and developing other parts of the Brookman area, with a larger number of owners, may be more challenging, to the extent that the property owners have to come to agreement about development.
- **Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman Area.** The growth rate of Metro's forecast for household growth (0.8% average annual growth) is considerably lower than the City's historical population growth rate over the last two decades (8% average annual growth). Metro's forecast only

includes growth that can be accommodated with the Sherwood Planning area, which does not include Sherwood West.

Given the limited supply of buildable land within Sherwood, it is likely that the City's residential growth will slow, especially if portions of Sherwood West are not brought into the Metro UGB in the earlier part of the 20-year planning period. It is likely that Sherwood's future growth over the 2018-2038 period would be considerably slower than its historical growth rate, if for no other fact than it is mathematically more difficult to maintain a high growth rate with a larger population. In addition, Sherwood's fast growth during the last two decades was driven by historically fast in-migration in to the Portland region, a trend that Metro's forecast shows slowing, and the availability of vacant buildable residential land in Sherwood.

Sherwood's fast growth during the last two decades was driven by historically fast in-migration in to the Portland region, a trend that Metro's forecast shows slowing, and the availability of vacant buildable residential land in Sherwood.

Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman Area.

- **Sherwood has a relatively limited supply of land for moderate- and higher-density multifamily housing.** Sherwood has 41 vacant acres of MDRH land and 17 acres of HDR land. If the City wants more multifamily housing growth in core areas of Sherwood, the City should evaluate whether to make policy changes that either increase the capacity of MDRH and HDR land or designate more land for these uses. Some specific considerations:
 - MDRH allows up to 11 dwelling units per acre. However the lot development requirements²⁸ for multifamily make it difficult to achieve the maximum development density. The City should evaluate the implications of changing MDRH development standards to allow densities of at least 11 dwelling units per acre or a moderate increase in the maximum allowable densities in MDRH.
 - The City's supply of HDR land is very limited, with 17 vacant acres of HDR. As part of the Comprehensive Plan update, the City may choose to evaluate opportunities to upzone land to HDR, to allow more multifamily land in areas such as centers or along transportation corridors.
 - Sherwood's development code does not provide opportunities for development of housing at moderate multifamily densities of 11.1 to 16.7 dwelling units per acre, the gap in densities between MDRH and HDR. As part of the Comprehensive Plan update, the City may choose to evaluate the need for a zone that allows development in this density,

Sherwood's development code does not provide opportunities for development of housing at moderate multifamily densities between 11 to 16 dwelling units per acre.

Providing opportunities for housing in these densities may address and provide opportunities for development of a wider range of affordable housing types.

²⁸ Sherwood has an 8,000 square foot minimum lot size for the first two multifamily units, with a requirement for 3,200 additional square feet for each multifamily unit beyond the first two units.

which might include townhouses and moderate-sized apartment or condominium buildings.

- About 9% of Sherwood’s residential development over the 2000 to 2014 period occurred in commercial zones., Sherwood may be able to accommodate additional multifamily residential development in these zones. The City may choose to evaluate and identify opportunities for additional multifamily development in commercial zones, as part of the Comprehensive Plan update.
- **Sherwood should monitor residential development.** The city may wish to develop a monitoring program that will allow Sherwood to understand how fast land is developing. The monitoring program will inform Metro’s UGB planning process by providing more detailed information about housing growth and development capacity in Sherwood. This information can help City staff and decision-makers make the case to Metro staff and decision-makers about the need for residential expansion areas. We recommend using the following metrics to monitor residential growth:
 - **Population.** The City already routinely monitors population growth by using the annual population estimates prepared by the Center for Population Research at Portland State University.
 - **Building permits.** The Housing Needs Analysis included a review of building permits by dwelling type, plan designation, zone, and net density. Because the City collects most of the data used in the analysis of historical development density, we recommend that city staff update this analysis on an annual basis.
 - **Subdivision and partition activity.** This metric is intended to measure the rate and density of land divisions in Sherwood. Specific data to include with subdivision and partition activity are the area of the parent lot, the area in child lots, the number of child lots, the average size or density of lots, and the area in dedicated right-of-way.
 - **Land consumption.** This metric relates closely to the building permit data. The building permit data should include tax lot identifiers for each permit. The City should match each permit to data in the buildable lands inventory and report how much land is being used by plan designation, zone, and land classification (e.g., vacant, redevelopable, infill, etc.). Additionally, we recommend the City map the location of development on an annual basis.

This page intentionally left blank.

Appendix A. Appendix A. Residential Buildable Lands Inventory

This appendix presents the methodology used to develop the buildable lands inventory and the results of the buildable lands inventory. The information in this appendix was developed by City of Sherwood staff.²⁹

METHODOLOGY

Definitions used in the inventory

Vacant land

- Any tax lot that is fully vacant as determined by RLIS GIS Data³⁰, aerial photography, field checks and local records.
- Tax lots that are at least 95% vacant are considered vacant land.
- Tax lots that are less than 2,000 sq. feet developed AND developed part is under 10% of entire lot

Developed land

- Part vacant/part developed tax lots are considered developed and will be treated in the redevelopment filter

Steps in developing the buildable land inventory

Step 1: Inventory and map fully vacant residential lands

a. Sort City tax lot data by zoning designation within the City boundary.

The residential zones including any planned unit development overlay utilized within this study include:

- Very Low Density Residential (VLDR)
- Low Density Residential (LDR)
- Medium Density Residential Low (MDRL)
- Medium Density Residential High (MDRH)
- High Density Residential (HDR)

b. Identify parcels that are fully vacant.

²⁹ Michelle Miller, AICP, Senior Planner at the City of Sherwood developed the buildable lands inventory.

³⁰ Metro's Data Resource Center collaborates with local partners to develop and deliver the Regional Land Information System (RLIS) – more than 100 layers of spatial data that supports strategic decision-making for governments, businesses and organizations across the region.

1. Remove developed parcels using most recent Metro's RLIS GIS data.
2. Planning staff review based on current aerial photography, field checks, and local records

Step 2: Subtract unbuildable acres

a. Remove tax lots that d/n have potential to provide residential growth.

1. Tax exempt with property codes for City, State, Federal and Native American designations
2. Schools
3. Churches and social organizations-based solely on tax exempt codes
4. Private streets
5. Rail properties
6. Tax lots under the minimum lot size of the zone or 4,250 sq. ft. for residential land due to infill standards
7. Parks

b. Calculate deductions for environmental resources³¹.

1. Remove Floodways-100% removed
2. Recognize environmental constraints such as slopes over 25 % and constrained areas as defined by Cities and Counties under Metro Functional Plan Title 13-Riparian Corridors (Class I and II) and Upland Wildlife Habitat (Class A and B) -100%
3. By assumption, allow one dwelling unit per residentially zoned tax lot if environmental encumbrances would limit development such that by internal calculations no dwelling units would otherwise be permitted.

c. Calculate for future streets.³²

This methodology sets aside a portion of the vacant land supply (not redevelopment supply) in order to accommodate future streets and sidewalks.

This assumption is calculated on a per tax lot basis.

1. Tax lots less than 3/8 acre assume 0% set aside future streets.³³
2. Tax lots between 3/8 acre and 1 acre assume a 10% set aside for future streets
3. Tax lots greater than an acre assume an 18.5% set aside for future streets

³¹ Environmental resources are considered to include Title 3, Title 13 FEMA floodway and slopes over 25 %.

³² The BLI accounts for future streets on a tax lot by tax lot basis. The buildable area of each tax lot is reduced based on individual tax lot size.

³³ The basis for these net street deduction ratios derive from previous research completed by the Data Resource Center and local jurisdictions for the 2002 UGR.

4. Industrial zoning assumes a 10% set aside regardless of size.

Step 3: Inventory and map re-developable lands

a. Definition:

Re-developable: applies to lots that are classified as developed that are now likely to redevelop or during the 20-year planning period.

b. Query performed that identifies previously developed lots that have potential to redevelop over time due to the relationship between the size of the lot and the value of improvements.

1. Sites between .26-.54 acres with improvements less than \$ 50 K
2. Sites over .55 acres with improvement between \$50,001-100 K
3. Sites over 1 acre with improvement values between \$ 100,001-150 K
4. Results of this query include land that is wholly re-developable, meaning existing improvements would be replaced, and land that is partially vacant, meaning the lot could be divided to allow for additional development.

Step 4: Planning staff review of draft map-(Investigative step)

- a. Remove under construction or pending construction as of October 1, 2014
- b. Added back and redefined areas of special concern (Areas like Brookman for example)³⁴
- c. Review and add City owned properties that are developable and not held for public purpose
- d. For parcels zoned MDRH and HDR determine densities based on location and likelihood that parcel will develop with multifamily or single-family dwelling units and base densities on minimum lot size for single-family and maximum density for multifamily.
- e. Re-developable or partially vacant sites that include:
 - Properties currently for sale
 - Lots that are more than twice the minimum lot size required to support the number of existing dwelling units including tax lots that have land division potential
 - Sites that should have been identified as partially vacant but not caught earlier
 - Lands with single-family development zoned for multifamily development
- f. Remove from Map and defined the following as Not Likely to Redevelop
 - Sites occupied by active religious institutions
 - Sites with known deed restrictions
 - Sites currently under development

³⁴ Assume Brookman Concept Plan Zoning

- Sites occupied by utility infrastructure
- Commercially zoned land greater than ½ mile from either residential or town center lots-most likely won't be mixed use with residential

g. Redevelop Strike Price Analysis

- Perform on all tax lots planned for residential and commercial development, to identify Multifamily and Commercial sites with a market redevelopment strike price of less than \$10 per square foot.³⁵

$$\text{Strike Price} = \frac{(\text{Improvement value} + \text{land value})}{\text{Total Sq. Ft of lot}}$$

h. Identify possible rezone properties that would either be added or subtracted from the inventory over time.

³⁵ This formula is part of the draft proposed Metro methodology for identifying sites zoned for Multifamily and Mixed Use Development that are likely to redevelop. \$10/sq.ft. is the estimated threshold for the market supporting redevelopment of suburban sites that are zoned for multifamily development.

RESULTS OF THE BUILDABLE LANDS INVENTORY

Table A- 1 presents the City’s inventory of buildable land. The buildable lands inventory is based on City of Sherwood and Metro GIS data. Table A- 1 shows that Sherwood has 175 net acres of suitable buildable residential land. Fifty-five percent of Sherwood’s vacant land (96 acres) is within the city limits and 45% (79 acres) is within the Brookman Area or other unincorporated areas within the current Urban Growth Boundary.

Table A- 1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014

Zone	Gross Acres	Percent of Total
Land within City Limits		
Very Low Density Residential (VLDR)	24	14%
Very Low Density Residential Planned Unit Development (VLDR-PUD)	1	1%
Low Density Residential (LDR)	22	13%
Medium Density Residential-Low (MDRL)	14	8%
Medium Density Residential-High (MDRH)	21	12%
High Density Residential (HDR)	14	8%
Subtotal	96	55%
Brookman and Other Unincorporated Areas		
Very Low Density Residential (VLDR)	1	1%
Medium Density Residential-Low (MDRL)	52	30%
Medium Density Residential-High (MDRH)	8	4%
Medium Density Residential- Low/High* (MDRL/H)	15	8%
High Density Residential (HDR)	3	2%
Subtotal	79	45%
Total	175	100%

Source: City of Sherwood

*Note: There is one lot split between MDRL and MDRH.

Table A- 2 presents a revision of the capacity shown in Table A- 1 for capacity based on historical densities. Between January 1, 2015 and October 31, 2017, Sherwood issued 125 permits for housing, all in the MDRL, MDRH, and HDR zones. Table A- 2 reduces the capacity estimate by 125 units, resulting in a capacity of 606 units on land within the city limits.

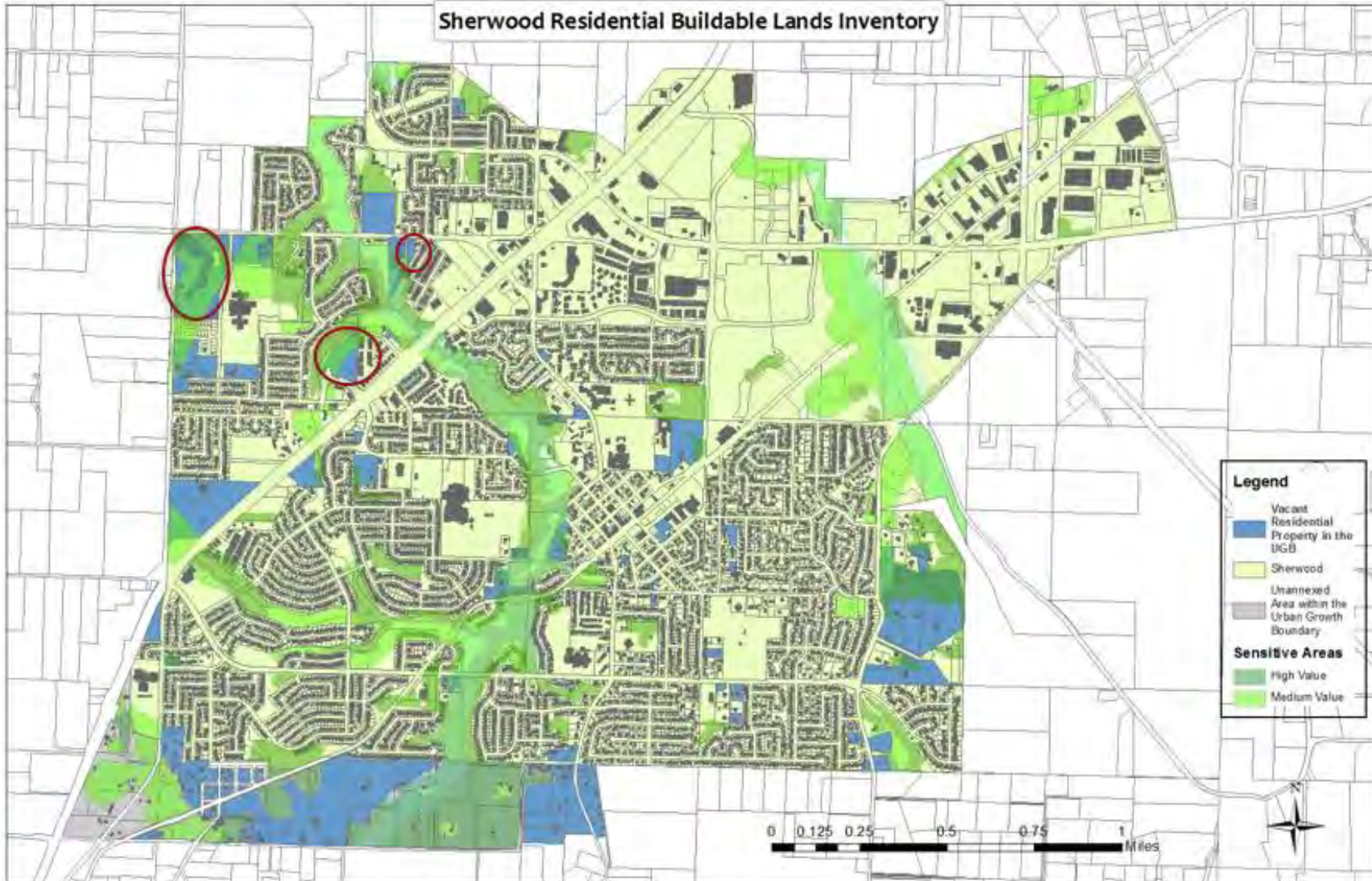
Table A- 2.. Revised capacity based on historical development densities accounting for building permits issued in 2015 to 2017, dwelling units, 2017

Zone	Capacity based on		Revised Capacity
	Historical Development Densities	Building Permits Issued 2015 to 2017	
Land within City Limits			
VLDR	69		69
VLDR_PUD	3		3
LDR	144		144
MDRL	88	24	64
MDRH	161	27	134
HDR	266	74	192
Subtotal	731	125	606

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

Map A-1 shows vacant and partially vacant land in Sherwood. Notable areas where development has occurred since 2015 are circled in red on Map 1. In total, 125 new single-family detached units were permitted between January 1, 2015 and October 31, 2017.

Map A-1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014



Source: City of Sherwood

Appendix B. Trends Affecting Housing Need in Sherwood

HISTORICAL AND RECENT DEVELOPMENT TRENDS

Analysis of historical development trends in Sherwood provides insights into how the local housing market functions. The intent of the analysis is to understand how local market dynamics may affect future housing—particularly the mix and density of housing by type. The housing mix and density by type are also key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands* Workbook:

- Determine the time period for which the data must be gathered.
- Identify types of housing to address (at a minimum, all needed housing types identified in ORS 197.303).
- Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types.

The period used in the analysis of housing density and mix is 2000 to 2014, which includes both times of high housing production and times of low housing production. This reasons for choosing this period were: (1) the 2000 to 2014 period includes more than one economic cycle, with extreme highs and extreme lows in the housing market and (2) data prior to 2005 was less easily available and obtaining data for 2000 to 2004 required a considerable amount of work by City staff to compile the data.

The housing needs analysis presents information about residential development by housing types. For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached:** single-family detached units and manufactured homes on lots and in mobile home parks.
- **Single-family attached:** all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.

Multifamily: all attached structures other than single-family detached units, manufactured units, or single-family attached units.

These categories of housing type were chosen for the analysis because they meet the requirements of needed housing types in ORS 197.303.³⁶

Data used in this analysis

Throughout this analysis, we use data from multiple well-recognized and reliable data sources. One of the key sources for data about housing and household data is the U.S. Census. This report primarily uses data from two Census sources:

- The **Decennial Census**, which is completed every ten years and is a survey of all households in the U.S. The Decennial Census is considered the best available data for information such as demographics (e.g., number of people, age distribution, or ethnic or racial composition); household characteristics (e.g., household size and composition); and housing occupancy characteristics. As of the 2010 Decennial Census, it does not collect more detailed household information, such as income, housing costs, housing characteristics, and other important household information. Decennial Census data is available for 1990, 2000, and 2010.
- The **American Community Survey (ACS)**, which is completed every year and is a sample of households in the U.S. The 2009-2013 ACS sampled about 16.2 million households, or about 2.8% of the households in the nation. The ACS collects detailed information about households, such as demographics (e.g., number of people, age distribution, ethnic or racial composition, country of origin, language spoken at home, and educational attainment); household characteristics (e.g., household size and composition); housing characteristics (e.g., type of housing unit, year unit built, or number of bedrooms); housing costs (e.g., rent, mortgage, utility, and insurance); housing value; income; and other characteristics.

In general, this report uses data from the 2009-2013 ACS for Sherwood. Where information is available, we report information from the 2010 Decennial Census.

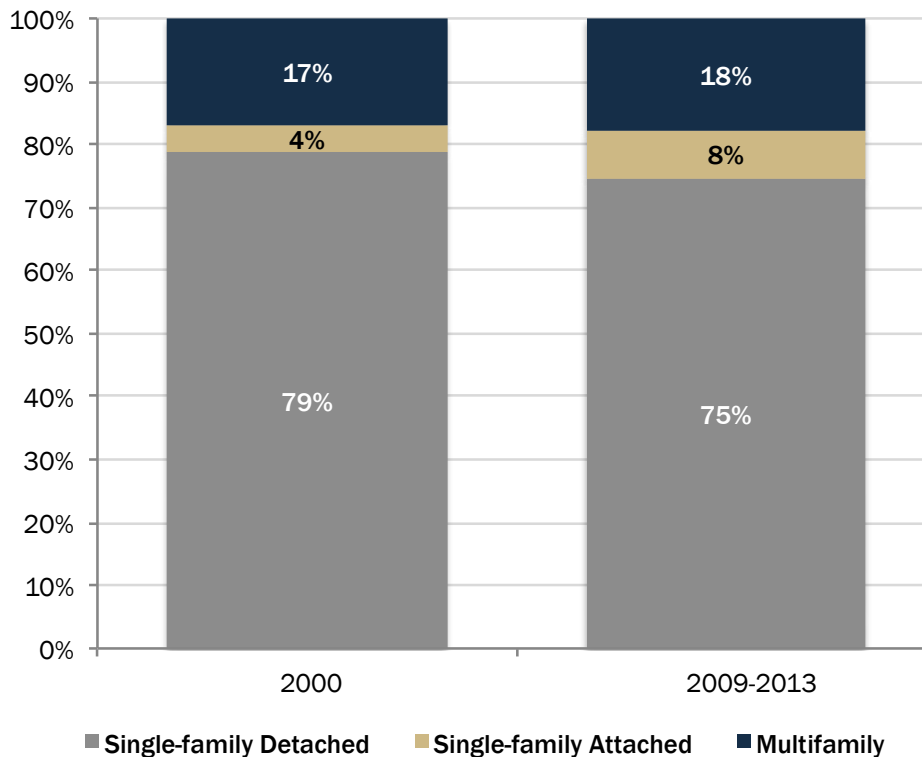
Trends in housing mix in Sherwood

According to the American Community Survey, Sherwood had more than 6,500 housing units in the 2009-2013 period. Figure B- 1 shows that Sherwood's housing stock is predominantly single-family detached housing. In 2000, 79% of

³⁶ The analysis of development in Sherwood attempts to separate single-family detached and single-family attached housing. However, the City's building permit system does not distinguish between these two types of housing. City staff manually identified single-family attached housing that was developed with a concentration of single-family attached housing. City staff were unable to identify small-scale, single-family attached development scattered throughout the city.

Sherwood’s housing stock was single-family detached and 77% was single-family detached in 2009-2013. The share of multifamily units increased from 17% of Sherwood’s housing stock in 2000 to 18% in 2009-2013.

Figure B- 1. Mix of Housing Types, Sherwood, 2000 to 2009-2013



Source: U.S. Census 2000 SF3 Table H030, American Community Survey 2009-2013, Table B25024.

Table B- 1 and Figure B- 2 show that the mix of housing developed over the 2000 to 2014 period was predominantly single-family housing (including single-family detached, single-family attached, and manufactured housing), accompanied by intermittent growth in multifamily.

Over the entire 2000 to 2014 period, Sherwood issued permits for nearly 2,225 dwelling units, with about 148 permits issued per year. About 69% of dwellings permitted were single-family detached, 9% were single-family attached, and 23% were multifamily.

In addition, 125 units were permitted during the January 1, 2015 to October 31, 2017 period. All units permitted were single-family detached. These permits are not shown in Table B- 1 and Figure B- 2.

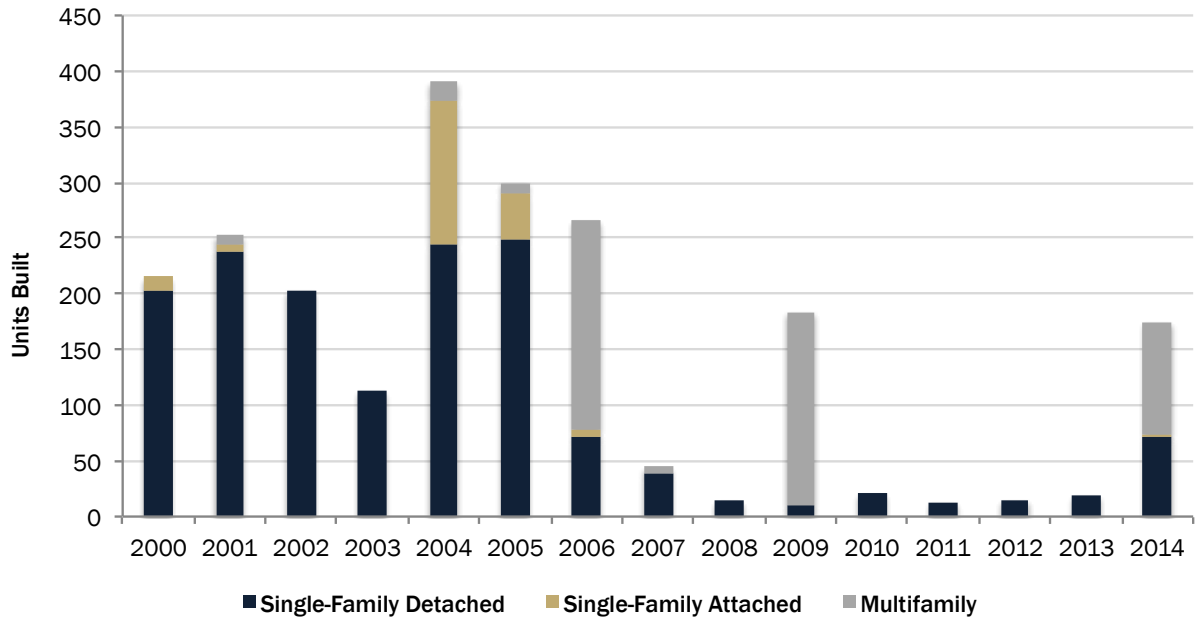
Table B- 1. Building permits by type of unit, Sherwood, 2000-2014

Housing Type	New Units Permitted	Average of New Units Permitted Annually	Mix of New Units
Single-Family Detached	1,525	102	69%
Single-Family Attached	196	13	9%
Multifamily	504	34	23%
Total	2,225	148	100%

Source: City of Sherwood Building Permit Database.

Notes: Single-Family Detached includes manufactured housing.

Figure B- 2. Building permits by type of unit, Sherwood, 2000 to 2014



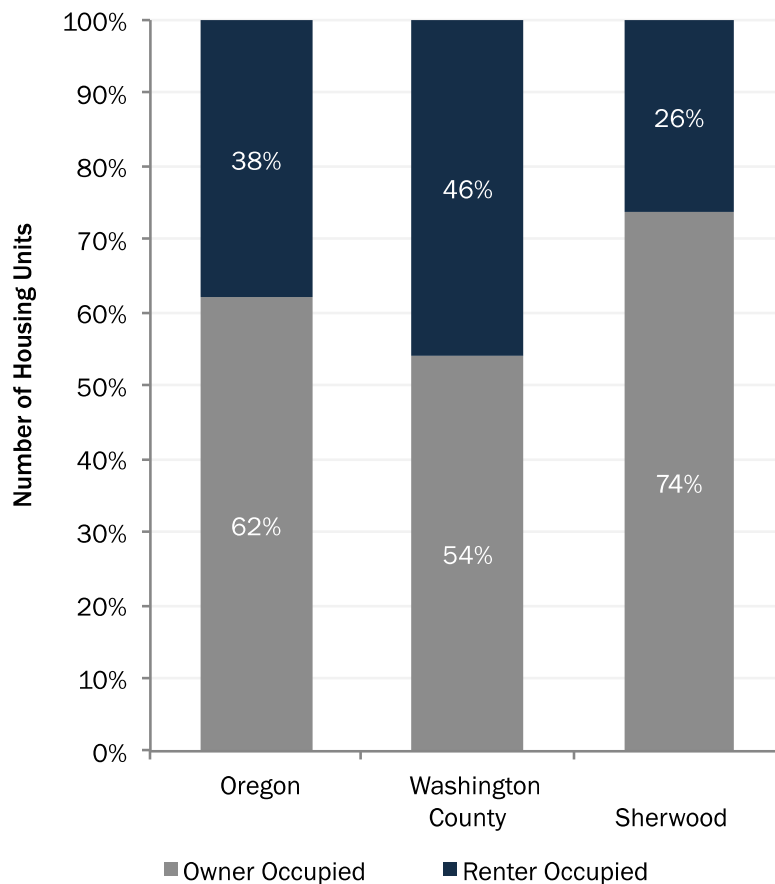
Source: City of Sherwood Building Permit Database.

Notes: Single-Family Detached includes manufactured housing.

Trends in Tenure

Figure B- 3 shows housing tenure in Oregon, Washington County, and Sherwood for the 2009-2013 period. Sherwood has a higher rate of ownership (74%) than the county (54%) and the state (62%).

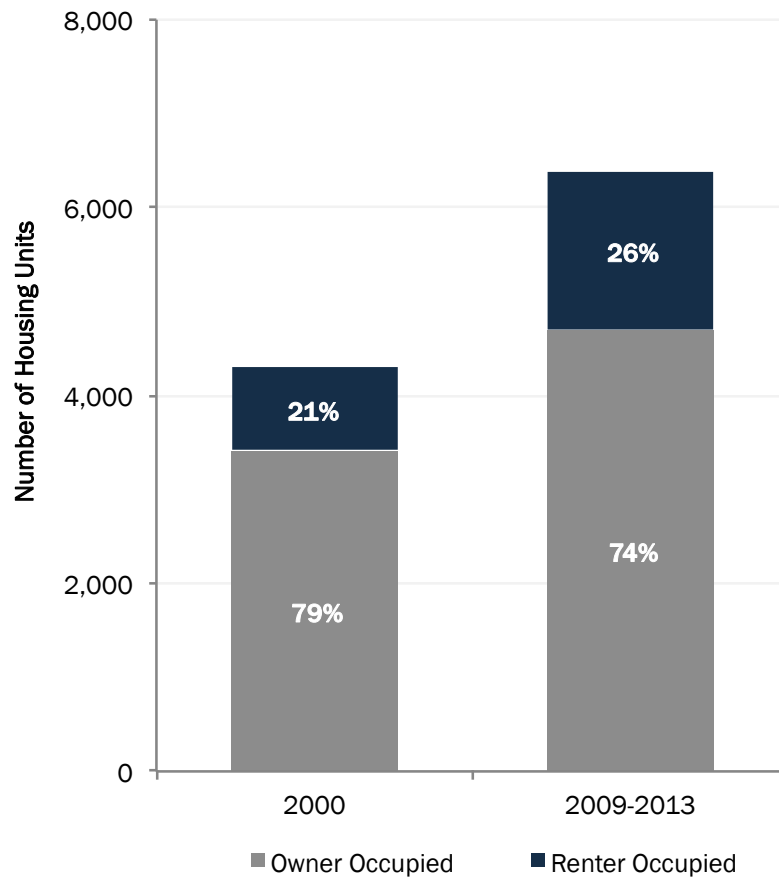
Figure B- 3. Housing Tenure, Oregon, Washington County, Sherwood, 2009-2013



Source: American Community Survey 2009-2013, Table B25003.

Figure B- 4 shows change in tenure (owner versus renter-occupied housing units) for the City of Sherwood over the 2000 to 2009-2013 period. The overall homeownership rate declined, from 79% to 74% between 2000 to 2009-2013, while renting increased by 5%. This change is consistent with national and statewide trends in homeownership.

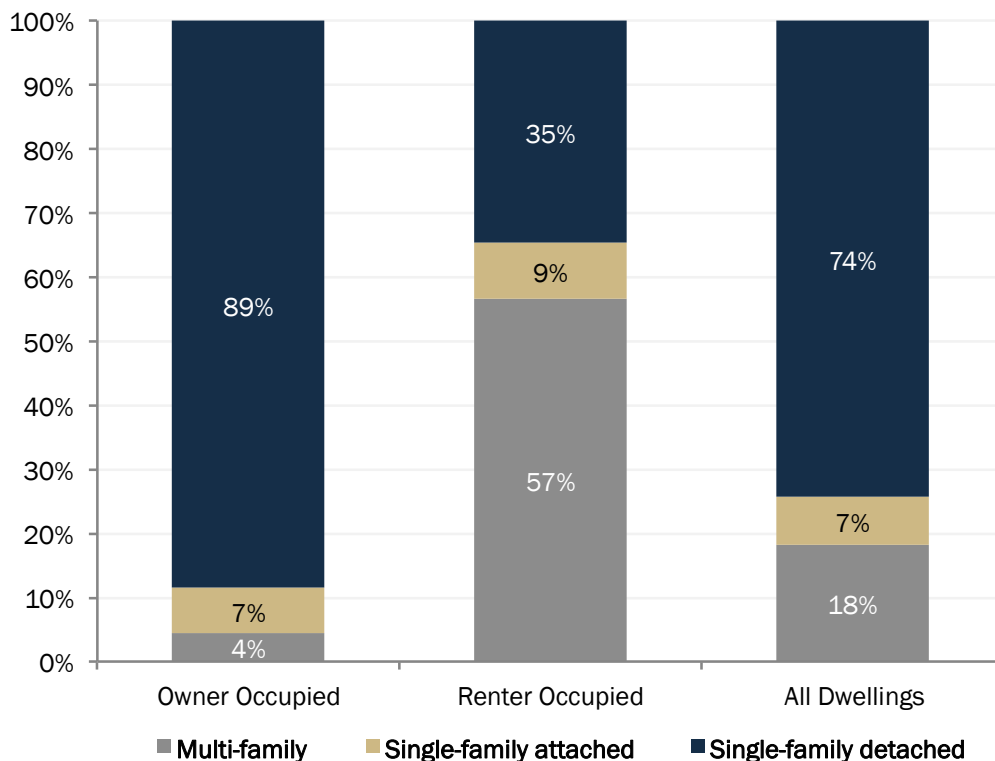
Figure B- 4. Tenure, occupied units, Sherwood, 2000 to 2009-2013



Source: U.S. Census 2000 SF3 Table H032, American Community Survey 2009-2013 Table B25003.

Figure B- 5 shows the types of dwelling in Sherwood in 2009-2013 by tenure (owner/renter-occupied). The results indicate that in Sherwood, single-family housing types are most frequently owner-occupied (70% of all housing is single-family, owner-occupied housing) and multifamily housing is most frequently renter-occupied (15% of all housing is multifamily renter-occupied housing).

Figure B- 5. Housing units by type and tenure, Sherwood, 2009-2013



Source: American Community Survey 2009-2013 Table B25032.

Housing Vacancy Rates

Table B- 2 shows vacancy rates in Oregon, Multnomah, Washington, and Clackamas counties, and Sherwood between 2000 and 2009-2013. Vacancy rates increased in Oregon, and Clackamas counties, but fell in Multnomah and Washington counties, and in Sherwood. As the 2009-2013 period, Sherwood had a relatively low vacancy rate (2.7%) compared to the regional counties, whose rates ranged from 5.5% to 7.0%, and to Oregon (9.6%).

Table B- 2. Housing vacancy rate, Oregon, Multnomah, Washington and Clackamas Counties, and Sherwood, 2000 to 2009-2013

	Oregon	Multnomah County	Washington County	Clackamas County	Sherwood
2000	8.2%	6.4%	5.7%	5.5%	3.6%
2009 - 2013	9.6%	5.9%	5.5%	7.0%	2.7%
Change 2000 to 2009-2013	17.1%	-7.5%	-3.6%	28.3%	-24.7%

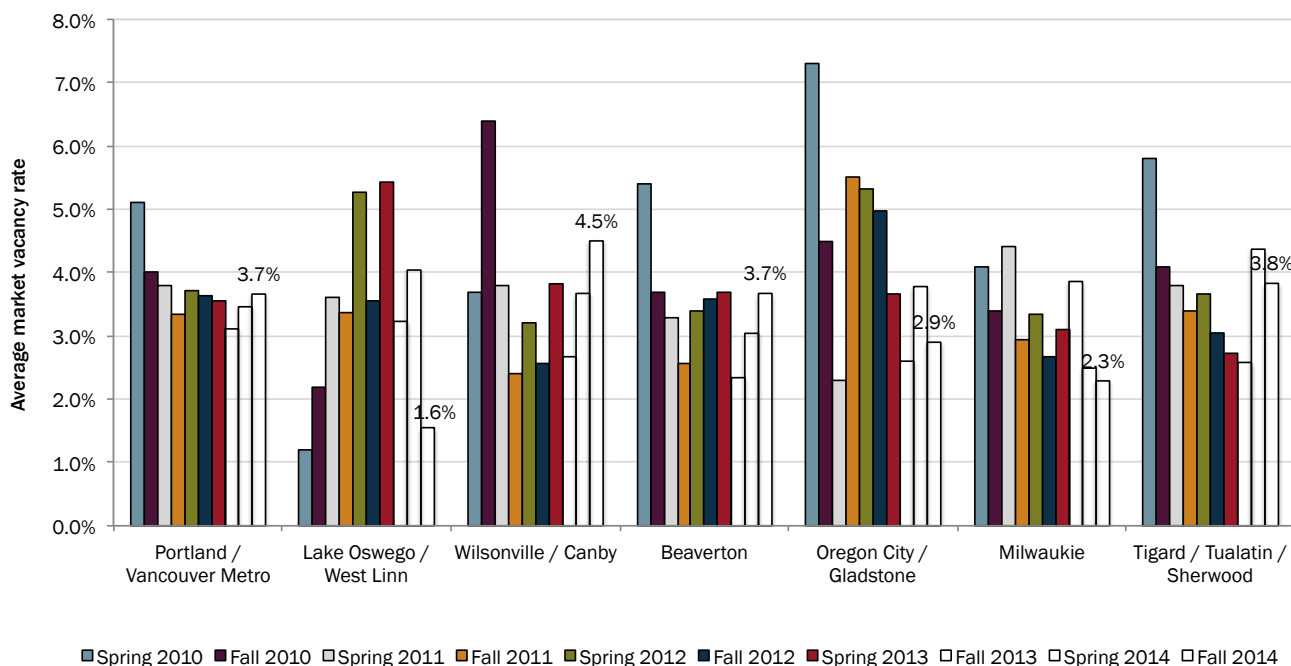
Source: U.S. Census 2000 SF1 Table H003, American Community Survey 2009-2013 Table B25002.

Multifamily NW tracks trends in the Portland area rental market and publishes a semi-annual report. Figure B- 6 shows average market vacancy rates for apartments for the Portland/Vancouver region and selected submarkets in the south-central Portland Region. The vacancy rates in the

Tigard/Tualatin/Sherwood area varied from a high of 5.8% in Spring 2010 to a low of 2.6% in Fall 2013. The vacancy rate in this area was within 1% (above or below) the vacancy rate for the Portland /Vancouver metro area. According to the Fall 2014 Apartment Report, the vacancy rate for apartments in the Tigard/Tualatin/Sherwood area was 3.8%, slightly higher than the regional average of 3.7%.

Multifamily vacancy rates vary, in part, as a result of building new multifamily developments. When a new multifamily development comes on the market, it may take months (or longer) for the new units to be absorbed into the housing market through rental of new units. During this absorption period, the vacancy rate will generally increase for multifamily housing.

Figure B- 6. Average market vacancy rates for apartments, Portland/Vancouver Metro area and selected submarkets, 2010-2014



Multifamily NW Apartment Reports, Spring 2010 – Fall 2014.

Density

Housing density is the density of housing by structure type, expressed in dwelling units per net or gross acre.³⁷ The U.S. Census does not track residential development density.

This study analyzes housing density based on new residential development within Sherwood between 2000 and 2014, similar to the analysis of achieved mix. The analysis of housing density uses data from the City of Sherwood’s building permits database.

Table B- 3 shows that development that was permitted between 2000 and 2014 achieved overall average densities of 8.2 dwelling units per net acre. The majority of permitted housing was single-family detached housing, which averaged 6.5 dwelling units per net acre. Multifamily housing achieved an average of 20.5 and single-family attached achieved an average of 17.9 dwelling units per net acre.

Table B- 3. Estimated density by type of unit, net acres, Sherwood, 2000-2014

Housing Type	New and Existing Units	Acres	Density (dwelling unit per acre)
Single-Family Detached	1,641	251	6.5
Single-Family Attached	196	11	17.9
Multifamily	504	25	20.5
Total	2,341	286	8.2

Source: City of Sherwood Building Permit Database.

Note: Single-Family Detached includes manufactured housing

Note: The number of new single-family detached housing is higher in Table B- 3 than in Table B- 1 because Table B- 3 includes 116 existing manufactured dwellings in manufactured housing parks. These dwellings were included as part of the density calculation to correctly calculate the densities of manufactured housing in the manufactured housing parks with one or more newly permitted dwellings over the 2000 to 2014 period.

Table B-4 shows an analysis of residential development density (dwelling units per net acre) over the 15-year period for Sherwood by zoning designation. Table B-4 shows:

- Ninety-two percent of residential development was in residential zones, which had an overall density of 7.8 dwelling units per net acre.
- Density in residential zones varied from 2.9 dwelling units per net acre in the Very Low Density Residential zone to 19.1 dwelling units per net acre in the High Density Residential zone.

³⁷ OAR 660-024-0010(6) uses the following definition of net buildable acre. “Net Buildable Acre” “...consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.” While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

- Density in the Low Density Residential zone averaged 6.5 dwelling units per net acre. Development in Planned Unit Developments (PUD) in this zone achieved an average of 7.6 dwelling units per net acre, which explains the relatively high density in this zone.
- Density in Commercial and Mixed-Use zones averaged 15.6 dwelling units per net acre.

Table B-4. Housing density by Zone, net acres, Sherwood, 2000 to 2014

Zone	New and Existing Units	Acres	Density (dwelling unit per acre)
Residential Zones			
Very Low Density Residential	53	18	2.9
Low Density Residential	807	124	6.5
PUD	487	64	7.6
Non-PUD	320	59	5.4
Medium Density Residential-High	301	39	7.7
Medium Density Residential-Low	368	60	6.1
High Density Residential	605	32	19.1
Residential subtotal	2,134	273	7.8
Commercial and Mixed Use Zones			
Office Commercial	150	6	24.4
Mixed-use Commercial and Condo	55	7	7.9
Retail Commercial	2	0	17.4
Commercial subtotal	207	13	15.6
Total	2,341	286	8.2

Source: City of Sherwood Building Permit Database

NATIONAL HOUSING TRENDS

The overview of national, state, and local housing trends builds from previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies at Harvard University.³⁸ The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing follows trends in jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the numbers of underwater homeowners, delinquent loans, and vacancies remain high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

Trends in housing development

The single-family housing market began strong in 2013, but by the arrival of 2014, housing starts were down 3% and new home sales had fallen 7% from the year before. The *State of the Nation's Housing Report* attributes most of the decline to increases in mortgage interest rates and meager improvements in employment and wages.

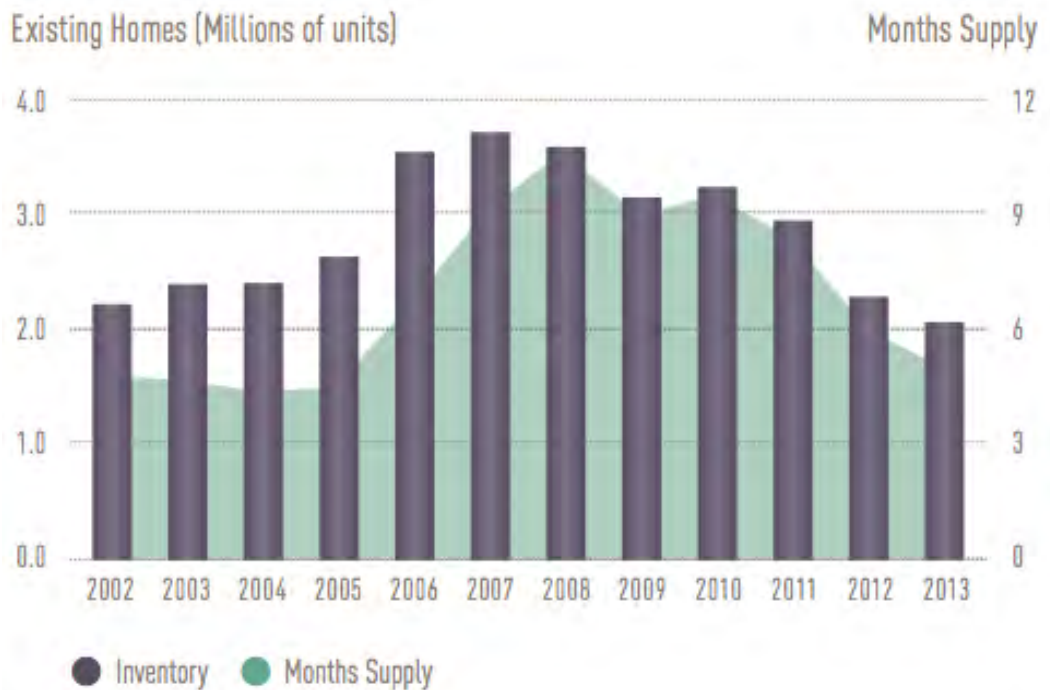
Thirty-year mortgage interest rose in 2014, bucking a downward trend. After falling to a low of around 3.4% in 2013, rates rose to around 5% in 2014. The rise of mortgage interest rates increased the cost of investment in a home and contributed to the fall in the rate of housing starts. In addition to the rise of mortgage interest rates, “steady but unspectacular job growth” presented a fundamental obstacle to the housing market’s progress, according to the report. Employment grew, but slowly, and incomes continued to fall. As long as job and wage growth remain slow, potential homebuyers will not create sufficient demand for robust growth in the housing market.

³⁸ The State of the Nation's Housing, Harvard University, 2014, accessed January 2014.
http://www.jchs.harvard.edu/research/state_nations_housing

Other recent trends in the housing market included: home inventories remained low (homes now spend less than six months on the market), investors purchased fewer distressed properties, the renter market grew, and a larger share of young people chose to live with their parents.

Supplies of existing homes for sale remained low in 2013, which may reflect the unwillingness or inability of owners to sell at current prices (Figure A- 1). As home prices return to levels that are more acceptable to sellers, more homes will go on the market.

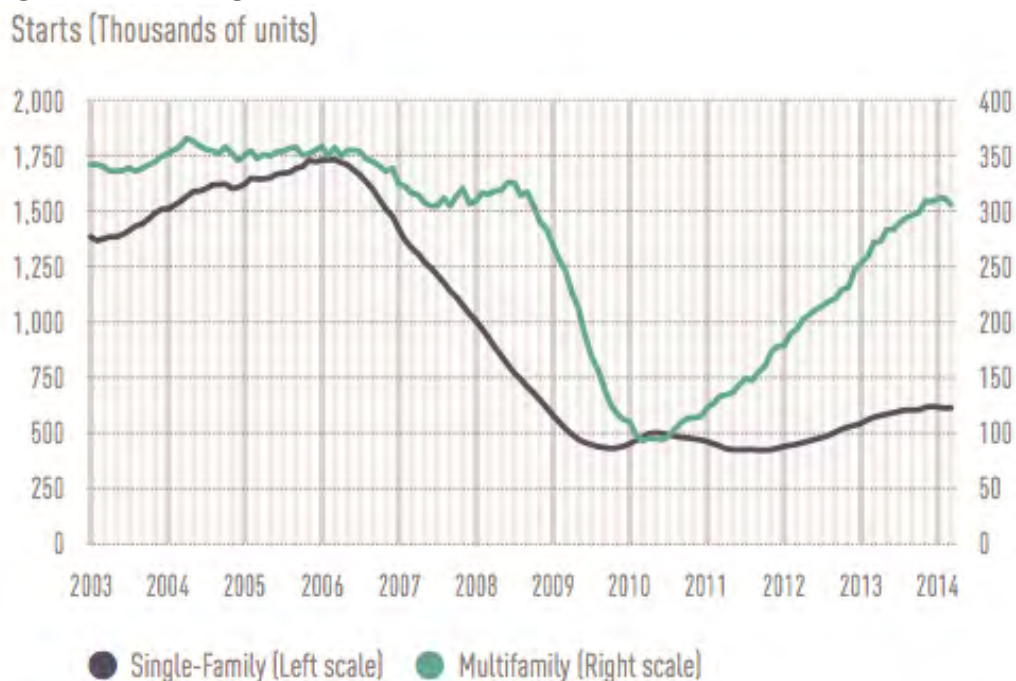
Figure A- 1. Inventories of Homes for Sale Against Months Supply, 2002-2013



Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

Multifamily home construction continued robust growth for a third consecutive year. Multifamily starts increased 25% to over 300,000 in 2013, approaching pre-recession levels of around 350,000. In contrast to strong multifamily housing growth, single-family home starts grew slowly, at only about 15%, well below pre-recession levels of production: less than 620,000 starts in 2013, compared to over 1.5 million in 2006. These growth trends are shown in Figure A- 2.

Figure A- 2. Housing Starts, 2003-2014

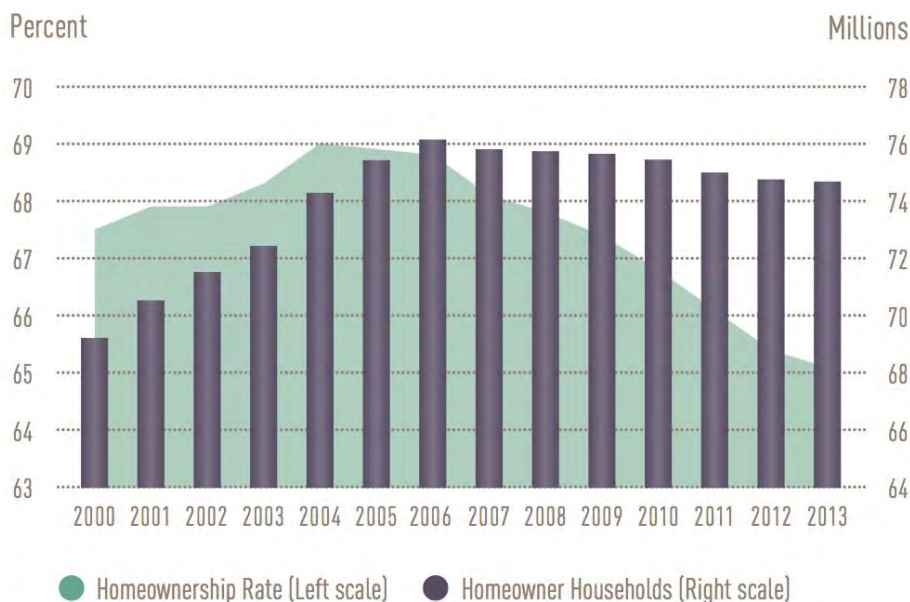


Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

Long run trends in home ownership and demand

The housing market downturn and foreclosure crisis had an immediate and potentially lasting impact on homeownership. After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at approximately 65%. However, while the rate declined again in 2013, it was the smallest drop since 2008. As seen in Figure A- 3, the US homeownership rate fell only 0.3 percentage points.

Figure A- 3. Homeownership Rates and the Number of Homeowner Households, 2000-2013



Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The long-term market outlook shows that homeownership is still the preferred tenure. While further homeownership gains are likely during the next decade, they are not assured. Additional increases depend, in part, on the effect of foreclosures on potential owner’s ability to purchase homes in the future, as well as whether the conditions that have led to homeownership growth can be sustained.

The Joint Center for Housing Studies indicates that demand for new homes could total as many as 13 million units nationally between 2015 and 2025. The location of these homes may differ from recent trends, which favored lower-density development on the urban fringe and suburban areas. The Urban Land Institute identifies the markets that have the most growth potential as “global gateway, 24-hour markets,” which are primary coastal cities with international airport hubs (e.g., Washington D.C., New York City, San Francisco, or Seattle). Development in these areas may be nearer city centers, with denser infill types of development.³⁹

The Joint Center for Housing Studies also indicates that demand for higher density housing types exists among certain demographics. They conclude that because of persistent income disparities, as well as the movement of the

³⁹ Urban Land Institute, “2011 Emerging Trends in Real Estate” and “2012 Emerging Trends in Real Estate”

Millennials into young adulthood, housing demand may shift away from single-family detached homes toward more affordable multifamily apartments, town homes, and manufactured homes.

Home rental trends

Nationally, the rental market continues to grow. In 2013, the number of households living in rental units increased by half a million, marking the ninth consecutive year of expansion. In addition to growth in rentals in 2013, the million-plus annual increases observed in 2011 and 2012 puts current growth rates on pace to easily surpass the record 5.1 million gain in the 2000s.

Rental markets across the country have been tightening, pushing up rents across the majority of markets. Rental vacancy rates also continued to drop in 2013, both nationwide and in most metros. The US rental vacancy rate stood at 8.3% in 2013 and, while this is the lowest level observed since 2001, this was still high relative to the 7.6% averaged in the 1990s.

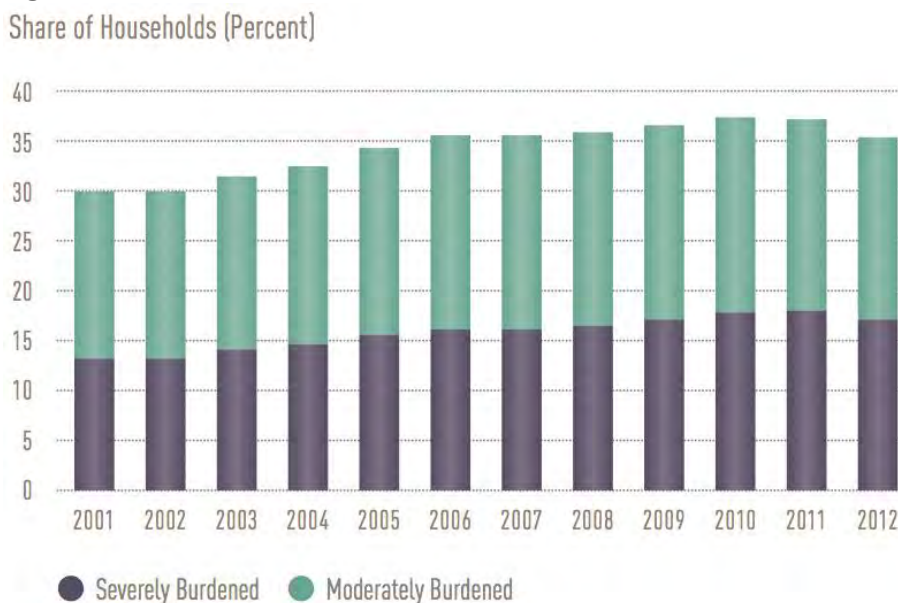
Over the longer term, the Joint Center for Housing expects demand for rental housing to continue to grow. Minorities will be the largest driver of rental demand because they are on average younger and less likely to own homes than whites. Demographics will also play a role. Growth in young adult households will increase demand for moderately priced rentals, in part because the oldest Millennials reached their late-20s around 2010. Meanwhile, growth among those between the ages of 45 and 64 will lift demand for higher-end rentals.

As the homeownership market recovers, the growth in renter households will likely slow. Since much of the increased demand for rental housing has been met through the conversion of single-family homes to rentals, future market adjustments may come from a return of these units to owner-occupancy. Additionally, the echo-boom generation should provide strong demand for rental units in the coming years.

Trends in housing affordability

Many homeowners pay a disproportionate share of their income on housing, with 35% of households in the U.S. who are cost burdened.⁴⁰ While the share of households that are cost burdened fell by about 4% in 2012, the share of households that were cost burdened increase between 2001 and 2011 (Figure A-4). More than 15% of U.S. households are severely cost burdened.

Figure A- 4. Share of Cost-burdened Households, 2001-2012



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The Joint Center for Housing Studies points to widening income disparities, decreasing federal assistance, and depletion of inventory through conversion or demolition as three factors exacerbating the lack of affordable housing. While the Harvard report presents a relatively optimistic long-run outlook for housing markets and for homeownership, it points to the significant difficulties low- and moderate-income households face in finding affordable housing and preserving the affordable units that do exist.

According to the Joint Center for Housing Studies, these statistics understate the true magnitude of the affordability problem because they do not capture the tradeoffs people make to hold down their housing costs. For example, these figures exclude people who live in crowded or structurally inadequate housing units. They also exclude the growing number of households that move to

⁴⁰ Households are considered cost burdened if they spent 30% or more of their gross income on housing costs. Households who spent 50% or more of their gross income on housing costs are considered severely cost burdened.

locations distant from work where they can afford to pay for housing, but must spend more for transportation to work. Among households in the lowest expenditure quartile, those living in affordable housing, spent an average of \$100 more on transportation per month in 2010 than those who are severely housing cost-burdened. With total average monthly outlays of only \$1,000, these extra travel costs could amount to roughly 10 percent of the entire household budget.

Demographic trends in housing preference

Demographic changes likely to affect the housing market and homeownership are:

- The aging of the Baby Boomers, the oldest of whom were in their late-60's in 2012.
- Housing choices of younger Baby Boomers, who were in their early to mid-50's in 2010.
- The children of Baby Boomers, called the Millennials, who ranged from their late teens to late twenties in 2012.
- Immigrants and their descendants, who are a faster growing group than other households in the U.S.⁴¹

The aging of the Baby Boomers will affect housing demand over the next decades. People prefer to remain in their community as they age.⁴² The challenges that aging seniors face in continuing to live in their community include: changes in healthcare needs, loss of mobility, the difficulty of home maintenance, financial concerns, and increases in property taxes.⁴³ Not all of these issues can be addressed through housing or land use policies.

Communities can address some of these issues through adopting policies that:

- Diversify housing stock to allow development of smaller, comparatively easily-maintained houses in single-family zones, such as single-story townhouses, condominiums, and apartments.
- Allow commercial uses in residential zones, such as neighborhood markets.
- Allow a mixture of housing densities and structure types in single-family zones, such as single-family detached, single-family attached, condominiums, and apartments.

⁴¹ Urban Land Institute, "2011 Emerging Trends in Real Estate"

⁴² A survey conducted by the AARP indicates that 90% of people 50 years and older want to stay in their current home and community as they age. See <http://www.aarp.org/research>.

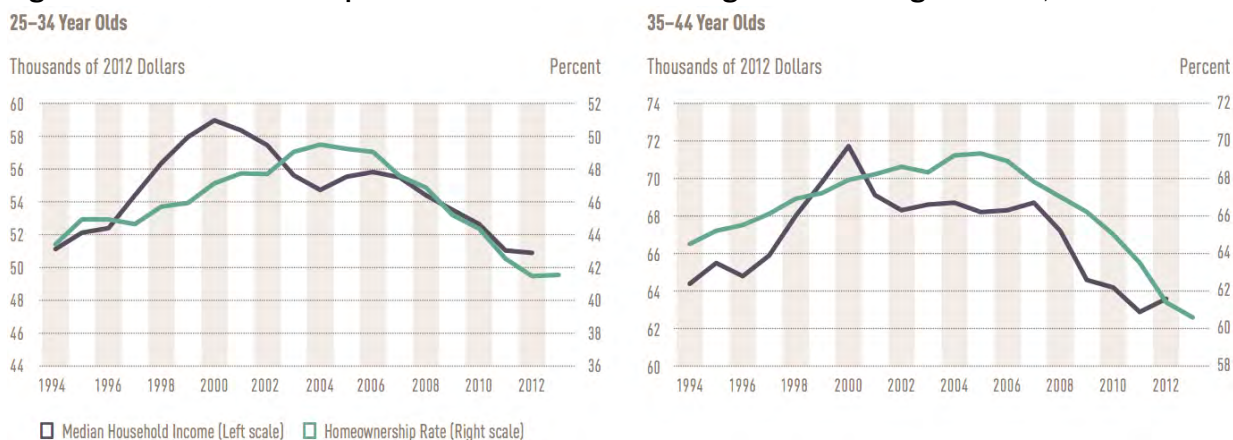
⁴³ "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

- Promote the development of group housing for seniors that are unable or do not choose to continue living in a private house. These facilities could include retirement communities for active seniors, assisted living facilities, or nursing homes.
- Design public facilities so that they can be used by seniors with limited mobility. For example, design and maintain sidewalks so that they can be used by people in wheelchairs or using walkers.

Household formation fell to around 600,000 to 800,000 in the 2007-2013 period, well below the average rate of growth in previous decades. Despite sluggish growth recently, several demographic factors indicate increases in housing growth to come. The Millennial generation (those born after 1985) is the age group most likely to form the majority of new households. While low incomes have kept current homeownership rates among young adults below their potential, Millennials may represent pent-up demand that will release when the economy fully recovers. As Millennials age, they may increase the number of households in their 30s by 2.4 to 3.0 million over the through 2025.

While the population of young adults between 20 and 29 years grew in the 2003-2013 decade by more than 4 million from the previous decade, the rate at which members of this age group formed their own households fell. As a result, household growth has not kept pace with overall population growth. Even if today's low household formation rates were to persist, however, the aging of the Millennials into their 30s will likely raise household headship rates due to lifecycle effects. About 60% of all 35-44 year-olds head an independent household, compared with less than 42% of all 25-34 year-olds. Thus, the Millennial generation, more populous than the Baby Boomers, is expected to be the primary driver of new household formation over the next twenty years.

Figure A- 5. Homeownership Rates and Incomes for Young and Middle-Aged Adults, 1994-2012



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10.
<http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

It is currently unclear what housing choices the Millennials will make. Some studies suggest that their parents' negative experience in the housing market, with housing values dropping so precipitously and so many foreclosures, will make Millennials less likely to become homeowners. In addition, high unemployment and underemployment may decrease Millennials' earning power and ability to save for a down payment. It is not clear, however, that Millennials' housing preferences will be significantly different from their parents over the long run.

Recent surveys suggest that as Millennials age and form families, they will increasingly prefer to live in single-family homes in suburban locations. A recent survey by the National Association of Homebuilders finds that roughly three-quarters of Millennials want to live in a single-family home and would prefer to live in a suburb, compared to just 10% that would prefer to live in a city center.

Other recent surveys suggest that Millennials prefer to live in walkable communities, where there are alternatives to driving. According to surveys from the American Planning Association and Transportation For America, at least three quarters of Millennials want their city to offer opportunities to live and work without relying on a car. While Millennials may choose housing that satisfies these preferences, the cost of living will place parameters on their housing choices. According to the APA survey, 71% percent of Millennials rated affordable housing as a high priority for metro areas.

In coming years Millennials will pursue homes that provide a combination of space, "walkability," and affordability. They will demonstrate these preferences

in the market soon: according to the APA survey, more than half of Millennials consider themselves at least somewhat likely to move within the next five years.⁴⁴

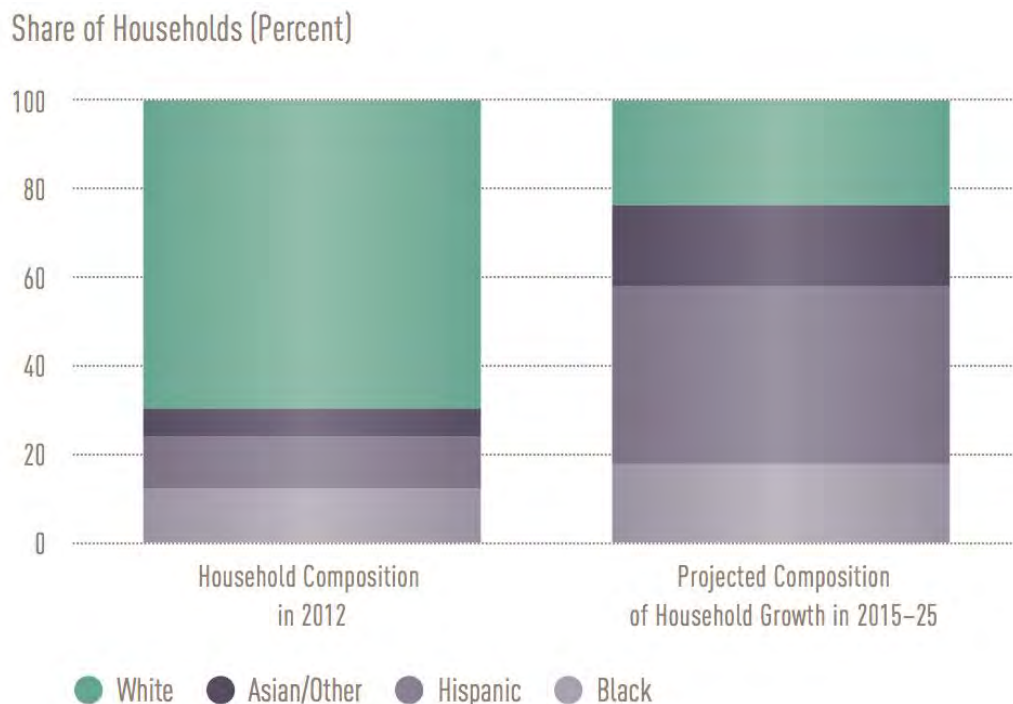
From 2004 to 2013, homeownership rates for 25-34 year olds and 35-44 year olds fell by around 8% and 9% respectively, with ownership rates for people 25 to 54 years old at the lowest point since recordkeeping started in 1976 (Figure A- 5). Nonetheless, the 25 and 34 year-old age group still makes up the majority of first-time homebuyers. Young adults in this cohort make up 54.3 percent of first-time homebuyers. Their majority among first-time homebuyers means that their ability to buy homes will play an important role in growth of the housing market in the near future.

The fall in homeownership among young adults results largely from the decline in income. Approximately 6 million more individuals between 20 and 29 years earned less than \$25,000 than in 2003, while the number of those earning between \$25,000 and \$50,000 fell by over a million. Furthermore, the share of households younger than 30 years with student loan debt increased by more than 7% since 2007, from 33.9% to 41.0%.

According to the Joint Center for Housing Studies, immigration and increased homeownership among minorities will also play a key role in accelerating household growth over the next 10 years. Current Population Survey estimates indicate that the number of foreign-born households rose by nearly 400,000 annually between 2001 and 2007, and accounted for nearly 30 percent of overall household growth. Beginning in 2008, the influx of immigrants was stanchied by the effects of the Great Recession. After a period of declines, however, the foreign born are again contributing to household growth. Census Bureau estimates of net immigration in 2011–12 indicate an increase of 110,000 persons over the previous year, to a total of nearly 900,000. Furthermore, as shown in Figure A- 6, the Harvard report forecasts that minorities will make up about 76% of the household growth between 2015 and 2025. The greater diversity among young adults partly explains the increased share of growth that will belong to minorities. For example, about 45% of Millennials are minorities, compared to 28% of Baby Boomers.

⁴⁴ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014. "Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders Show, accessed January, 2015, <http://www.buildersshow.com/Search/isesProgram.aspx?id=17889&fromGSA=1>. "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America, accessed January 2015, http://t4america.org/wp-content/uploads/2014/04/Press-Release_Millennials-Survey-Results-FINAL-with-embargo.pdf.

Figure A- 6. Share of Households by Racial/Ethnic Group, 2012 and 2015-25



Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The growing diversity of American households will have a large impact on the domestic housing markets. Over the coming decade, minorities will make up a larger share of young households, and constitute an important source of demand for both rental housing and small homes. This makes the growing gap in homeownership rates between whites and blacks and whites and Hispanics troubling. Since 2001, the difference in homeownership rates between whites and blacks rose from 25.9 to 29.5 in 2013. Similarly the gap between white and Hispanic homeownership rates increased since 2008, from below 26%, to over 27% in 2013. This growing gap between racial and ethnic groups will hamper the country’s homeownership rate as minority households constitute a larger share of the housing market.

Trends in Housing Characteristics

The U.S Census Bureau’s Characteristics of New Housing Report (2013) presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several long-term trends in the characteristics of housing are evident from the New Housing Report:⁴⁵

⁴⁵ <https://www.census.gov/construction/chars/highlights.html>

- **Larger single-family units on smaller lots.** Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 sq. ft. to 2,384 sq. ft., and 19% in the western region from 1,985 sq. ft. to 2,359 sq. ft. Moreover, the percentage of units fewer than 1,400 sq. ft. nationally decreased by almost half, from 15% in 1999 to 8% in 2012. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2013, the percentage of lots less than 7,000 sq. ft. increased from 27% of lots to 36% of lots.
- **Larger multifamily units.** Between 1999 and 2013, the median size of new multiple family dwelling units increased by 2% nationally and 3% in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 32% in 2013 nationally, and increased from 25% to 32% in the western region.
- **More household amenities.** Between 1990 and 2013, the percentage of single-family units built with amenities such as central air conditioning, 2 or more car garages, or 2 or more baths all increased. The same trend in increased amenities is seen in multifamily units.

During the recession, the trend towards larger units with more amenities faltered. Between 2007 and 2009, for example, the median size of new single-family units decreased by 6% throughout the nation, including in the West. In addition, the share of new units with amenities (e.g., central air conditioning, fireplaces, 2 or more car garages, or 2 or more bath) all decreased slightly during this time. With the recovery, however, housing sizes have been increasing annually; median housing sizes increased by 12% between 2009 and 2013 nationwide, and 10% in the western region. The short term, post-recession trends regarding amenities are mixed, but generally appear to be increasing (albeit more slowly than housing sizes).

It appears that the decreases in unit size and amenities were a short-term trend, resulting from the housing crisis. However, numerous articles and national studies suggest that these changes may indicate a long-term change in the housing market, resulting from a combination of increased demand for rental units because of demographic changes (e.g., the aging of the baby boomers, new immigrants, and the echo-boomers), as well as changes in personal finance and availability of mortgages.⁴⁶

These studies may be correct and the housing market may be in the process of a long-term change, with some fluctuations over time in unit size and amenities.

⁴⁶ These studies include "Hope for Housing?" by Greg Filsram in the October 2010 issue of Planning and "The Elusive Small-House Utopia" by Andrew Rice in the New York Times on October 15, 2010.

On the other hand, long-term demand for housing may not be substantially affected by the current housing market. The echo-boomers and new immigrants may choose single-family detached housing and mortgages may become easier to obtain.

Studies and data analysis have shown a clear linkage between demographic characteristics and housing choice. This is more typically referred to as the linkage between lifecycle and housing choice and is documented in detail in several publications. Analysis of data from the Public Use Microsample (PUMS) in the 2000 Census helps to describe the relationship between selected demographic characteristics and housing choice. Key relationships identified through this data include:

- Homeownership rates increase as income increases;
- Homeownership rates increase as age increases;
- Choice of single-family detached housing types increases as income increases;
- Renters are much more likely to choose multiple family housing types than single-family; and
- Income is a stronger determinate of tenure and housing type choice for all age categories.

STATE DEMOGRAPHIC TRENDS

Oregon's *2011-2015 Consolidated Plan* includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.⁴⁷ The plan concludes that, "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, when compared to the nation.
- Experiencing higher foreclosure rates since 2005, compared with the previous two decades.
- Losing federal subsidies on about 8% of federally subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.

⁴⁷ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

- Increasingly older, more diverse, and has less affluent households.⁴⁸

REGIONAL AND LOCAL DEMOGRAPHIC TRENDS

Regional demographic trends largely follow the statewide trends discussed above, but provide additional insight into how demographic trends might affect housing in Sherwood. Demographic trends that might affect the key assumptions used in the baseline analysis of housing need are: (1) the aging population, (2) changes in household size and composition, and (3) increases in diversity. This section describes those trends.

The following section presents data tables. In a few places, additional explanatory text is included. For the most part, the text describing the implications of the tables is in the main part of the document.

Growing population

Sherwood has a growing population. Table B- 5 shows population growth in the U.S., Oregon, the Portland Region, Washington County, and Sherwood, between 1990 and 2013.

Table B- 5. Population in U.S., Oregon, the Portland Region, Washington County, and Sherwood, 1990-2013

Area	Population			Change 1990 to 2013		
	1990	2000	2013	Number	Percent	AAGR
U.S.	248,709,873	281,421,906	311,536,594	62,826,721	25%	1.0%
Oregon	2,842,321	3,421,399	3,919,020	1,076,699	38%	1.4%
Portland Region	1,174,291	1,444,219	1,693,600	519,309	44%	1.6%
Washington County	311,554	445,342	550,990	239,436	77%	2.5%
Sherwood	3,093	11,963	18,575	15,482	501%	8.1%

Source: US Census Bureau Decennial Census 1990 and 2000; Portland State University, Population Research Center
 Note: AAGR is average annual growth rate.

The housing needs analysis in this report is based on a coordinated household forecast from Metro (the January 2016 2040 TAZ Forecast), which is a necessary prerequisite to estimate housing needs. The projection of household growth includes areas currently within the city limits, as well as areas currently outside the city limits that the City expects to annex for residential uses (most notably the Brookman area). We call these areas combined the “Sherwood planning area.”

Table B-6 presents Metro’s forecast for household growth and new housing development in the Sherwood planning area for the 2010 to 2040 period. The table shows Metro’s forecast for the Sherwood city limits, areas currently outside

⁴⁸ State of Oregon *Consolidated Plan 2011 to 2015*.

http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

the city limits that are expected to be annexed by 2040, which are together the Sherwood planning area. Table B-6 shows Metro’s forecast for the number of households in each of the following years:

- **2010.** Metro’s forecast uses an estimate of the number of households in 2010 as the starting point of the forecast.
- **2015.** Estimate of number of households in 2015.
- **2040.** Metro’s forecast estimates household growth of 2,078 dwelling units or 30%, by 2040. Part of the forecasting process was providing jurisdictions an opportunity to review and comment on the forecast for growth through 2040.

Table B-6 also shows Metro’s forecast for the Sherwood West area, which is forecast to grow by 4,157 dwelling units by 2040. While Metro forecasts that this development will occur over the 2015 to 2040 period, the discussion of timing of this development in the Concept Planning process suggests that Sherwood West may take 50 years (2015 to 2065) to develop the 4,157 dwelling units in Metro’s forecast.

Table B-6. Metro forecast for housing growth, Sherwood planning area, 2010 to 2040

Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2010	6,476	242	6,718	270
2015	6,784	226	7,010	293
2040	7,653	1,435	9,088	4,811
Change 2015 to 2040				
Households	869	1,209	2,078	4,518
Percent	13%	535%	30%	1542%
AAGR	0.5%	7.7%	1.0%	11.8%

Source: Metro 2040 TAZ Forecast by Households, January 2016

Note: The Sherwood City Limits are the following Metro Transportation Analysis Zones (TAZs): 989 to 997.

The Brookman area is predominantly in Transportation Analysis Zone 978, with a small area in 988.

Brookman is an area that the City expects to annex for residential growth over the planning period.

Sherwood West is parts of Transportation Analysis Zones 1428, 1429, and 1432.

Sherwood’s housing needs analysis must be based on a 20-year period, but Metro’s forecast describes growth over a 25-year period. Table B- 7 shows an extrapolation of Metro’s forecast for the 2018 to 2038 period. ECONorthwest extrapolated Metro’s forecast to 2018 based on the number of households in 2015 and the growth rate in the forecast between 2015 and 2040. We assumed that little to no growth happened in Sherwood West between 2015 and 2018, an

assumption that is supported by the relative lack of building permit activity in these areas.

Table B- 7 shows that the Sherwood planning area will add 1,653 new households between 2018 and 2038, with 697 new households inside the existing city limits and 956 new households in outside the current city limits in the Brookman Area.

Table B- 7. Extrapolated Metro forecast for housing growth, Sherwood planning area, 2018 to 2038

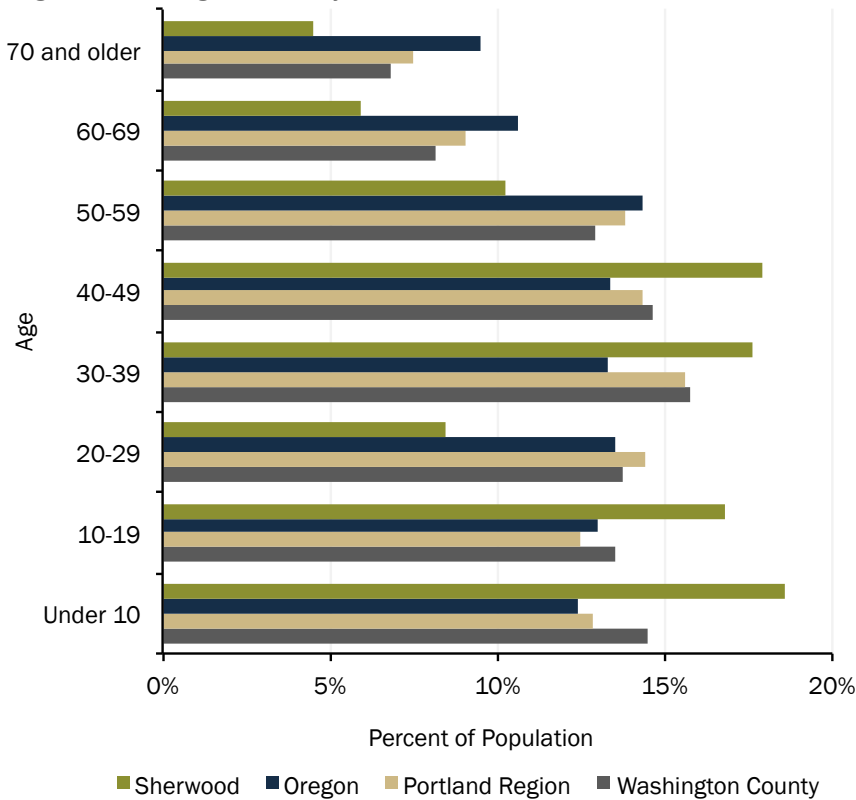
Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2018	6,883	282	7,165	293
2038	7,580	1,238	8,818	4,450
Change 2015 to 2040				
Households	697	956	1,653	4,157
Percent	10%	339%	23%	1419%
AAGR	0.5%	7.7%	1.0%	14.6%

Source: Metro 2040 TAZ Forecast by Households, January 2016

Aging population

In 2010, the median age in Sherwood was 34.3 years old, compared to the median of 35.3 in Washington County, and the State median of 38.4. Figure B- 7 shows the populations of Oregon, the Portland Region, Washington County, and Sherwood by age in 2010.

Figure B- 7. Population Distribution by Age for Oregon, Sherwood, Oregon, Portland Region, Washington County



Source: U.S. Census 2010, Profile of General Population and Housing Characteristics

Table B- 8 shows population by age in Sherwood for 2000 and 2010. Over the 2000 to 2010 period, the population of people aged 45 to 64 years old grew the fastest, increasing from 1,936 to 3,917, or 102%.

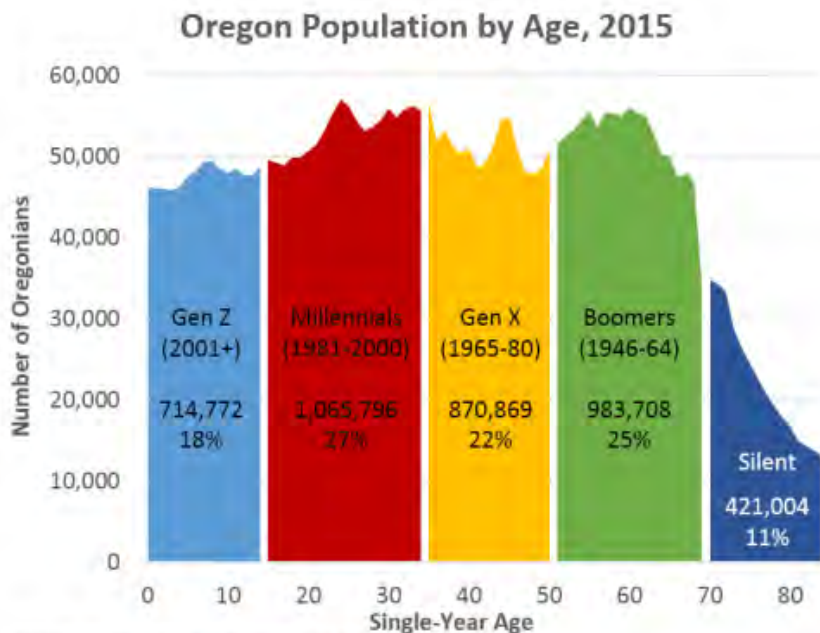
Table B- 8. Population by Age, Sherwood, 2000 and 2010

Age Group	2000		2010		Change 2000-2010		
	Number	Percent	Number	Percent	Number	Percent	Share
Under 5	1,351	11%	1,518	8%	167	12%	-3%
5-17	2,383	20%	4,589	25%	2,206	93%	5%
18-24	644	5%	939	5%	295	46%	0%
25-44	4,854	41%	5,991	33%	1,137	23%	-8%
45-64	1,936	16%	3,917	22%	1,981	102%	5%
65 and over	623	5%	1,240	7%	617	99%	2%
Total	11,791	100%	18,194	100%	6,403	54%	0%

Source: U.S. Census 2000 Table P12, U.S. Census 2010 Table P12

Figure B- 8 shows the population distribution by generation and age in Oregon in 2015. The largest groups are the Millennials (27% of Oregon’s population) and the Baby Boomers (25% of Oregon’s population). By 2035, the end of the planning period for this analysis, Millennials will be between 35 and 54 years old. Baby Boomers will be 71 to 89 years old.

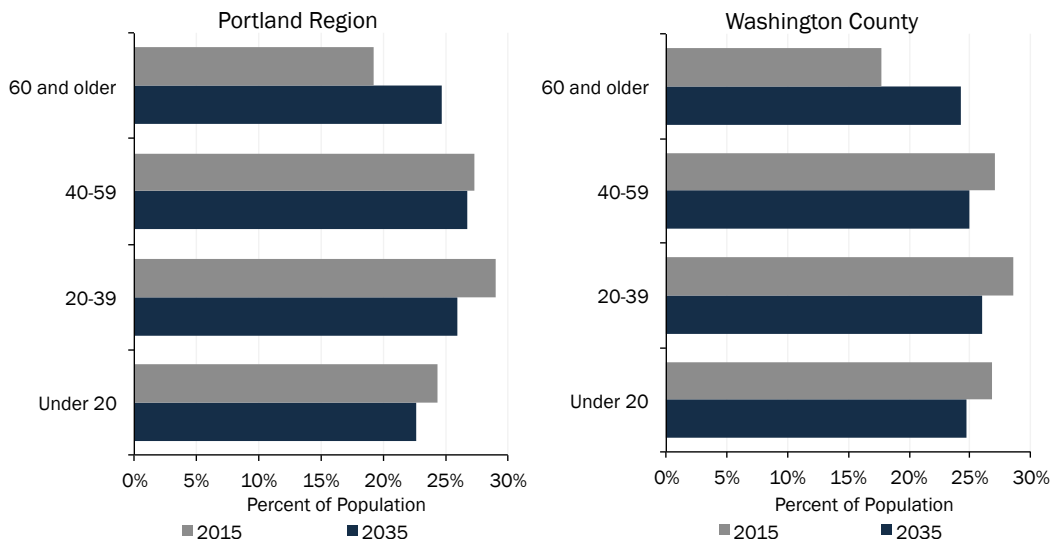
Figure B- 8. Population Distribution by Generation and Age, Oregon, 2015



Source: Oregon Office of Economic Analysis
 Source: Oregon Office of Economic Analysis, “Population, Demographics, and Generations” by Josh Jehner, February 5, 2015.
<http://oregoneconomicanalysis.com/2015/02/05/population-demographics-and-generations/>

Figure B- 9 shows the Office of Economic Analysis’s (OEA) forecast of population change by age group, from 2015 to 2035, for the Portland Region. By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The percent of total population in each age group younger than 60 years old will decrease. The age distribution in the Portland Region will change in a similar pattern.

Figure B- 9. Current and projected population by age, Portland Region and Washington County, 2015 and 2035

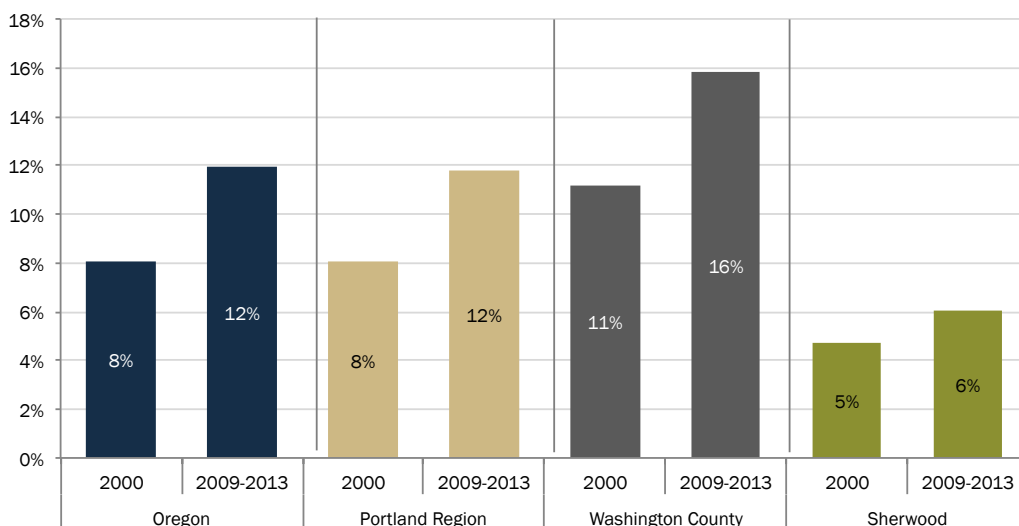


Source: Oregon Office of Economic Analysis.
http://www.oregon.gov/DAS/OEA/docs/demographic/pop_by_ageandsex.xls

Increased ethnic diversity

Figure B-10 shows the percentage of the total population that is of Hispanic or Latino origin for Oregon, the Portland Region, and Sherwood, in 2000 and 2009-2013. Between 2000 and 2009-2013, Hispanic or Latino population increased from 5% of the population to 6% of the population, adding 550 additional Hispanic or Latino residents. Sherwood has a smaller percentage of Hispanic or Latino population than the county or regional average.

Figure B- 10 Hispanic or Latino population by percentage, Oregon, the Portland Region, Washington County, Sherwood, in 2000 and 2009-2013



Source: U.S. Census 2000 SF1 Table P008, American Community Survey 2009-2013 Table B03003.

Household size and composition

Household size

Table B- 9 shows average household sizes in Oregon, the Portland Region, Washington County, and Sherwood in 2000 and the 2009-2013 period.

Table B- 9. Average household size, Oregon, Portland Region, Washington County, and Sherwood, 2000 to 2009-2013.

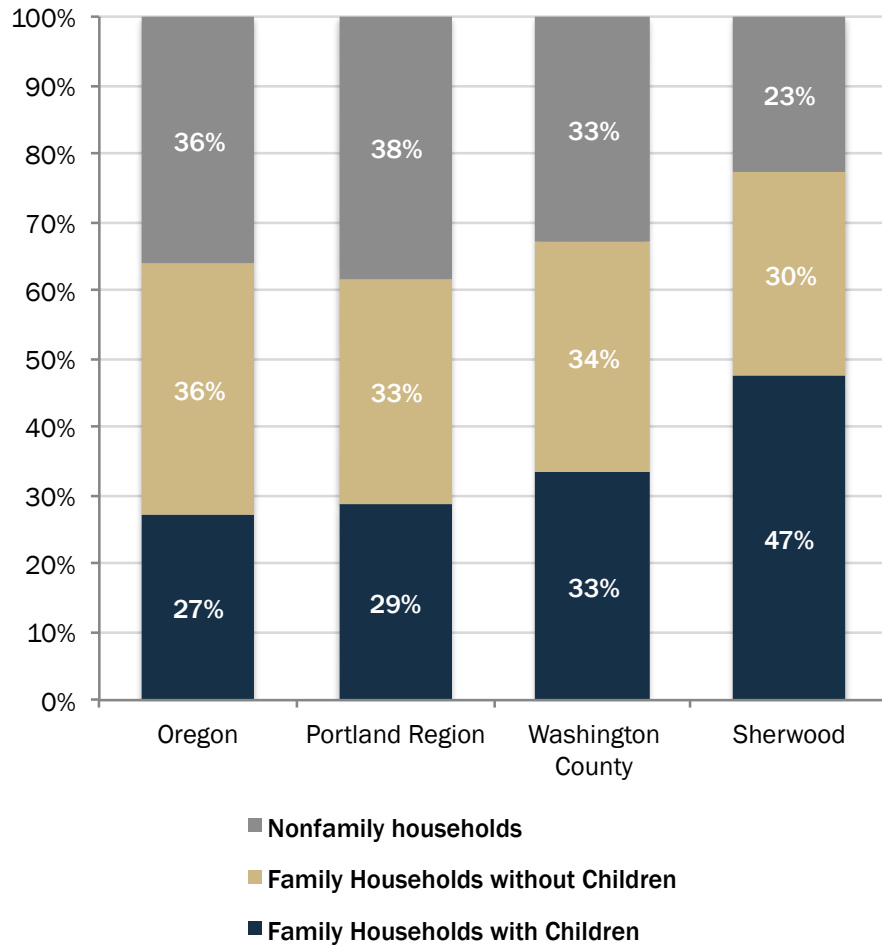
	Oregon	Portland Region	Washington County	Sherwood
2000				
Average household size	2.51	2.53	2.61	2.77
Owner-occupied units	2.59	2.67	2.75	2.85
Renter-occupied units	2.36	2.30	2.39	2.47
2009-2013				
Average household size	2.49	2.54	2.64	2.89
Owner-occupied units	2.55	2.64	2.72	3.00
Renter-occupied units	2.41	2.37	2.53	2.57
Change 2000 to 2009-2013				
Average household size	-0.02	0.00	0.03	0.12
Owner-occupied units	-0.04	-0.02	-0.03	0.15
Renter-occupied units	0.05	0.07	0.14	0.10

Source: U.S. Census 2000 SF1 H012, American Community Survey 2009-2013 Table B25010.

Household composition

Figure B- 11 shows household composition in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013. A larger share of Sherwood’s housing composition is family household with children (47%) compared to that of Washington County (33%), the Portland Region (29%), and Oregon (27%).

Figure B- 11. Household composition, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Tables DP02.

Group Quarters

Table B- 10 shows the population living in group quarters in Oregon, the Portland Region, Washington County, and Sherwood in 2000 and 2010. Only seven out of 18,194 Sherwood residents lived in group quarters in 2010, less than 0.0%. In contrast, 2.3% of Oregon’s population and 1.8% of the Portland region’s population lives in group quarters.

Table B- 10. Persons in group quarters, Oregon, Portland Region, Washington County, and Sherwood, 2000 to 2010.

	2000	2010
Oregon		
Total Population	3,421,399	3,831,074
Persons in Group Quarters	77,491	86,642
Percent in Group Quarters	2.3%	2.3%
Percent in correctional institutions	0.6%	0.6%
Portland Region		
Total Population	1,444,219	1,641,036
Persons in Group Quarters	23,667	29,124
Percent in Group Quarters	1.6%	1.8%
Percent in correctional institutions	0.0%	0.0%
Washington County		
Total Population	445,342	529,710
Persons in Group Quarters	4,101	6,788
Percent in Group Quarters	0.9%	1.3%
Percent in correctional institutions	0.1%	0.4%
Sherwood		
Total Population	11,791	18,194
Persons in Group Quarters	19	7
Percent in Group Quarters	0.2%	0.0%
Percent in correctional institutions	0.0%	0.0%

Source: U.S. Census 2000 SF1 Tables P1 and P37, U.S. Census 2010 SF1 Tables P1 and P42

Commuting trends

Commuting within the Portland region is common, with small cities like Sherwood seeing the vast majority of workers commute out of the city for work and the majority of people working in the city commuting in from other parts of the region. Figure B- 12 shows this pattern in Sherwood, with the majority of people living in Sherwood commuting out for work and the majority of people working in Sherwood commuting into the city for work.

Figure B- 12. Inflow and Outflow of Employment and Residence in Sherwood, 2011



Source: U.S. Census Bureau: LED on the Map, <http://lehdmap3.did.census.gov/themap3/>
The U.S. Census bases this data on Unemployment Insurance earnings data and the Quarterly Census of Employment and Wages (QCEW) data, combined with administrative data, additional administrative data and data from censuses and surveys. From these data, the program creates statistics on employment, earnings, and job flows at detailed levels of geography and industry and for different demographic groups.

Table B- 11 shows the places where Sherwood residents were employed in 2011. More than 90% of Sherwood residents worked outside of the city.

Table B- 11. Places that residents of Sherwood were employed in, 2011.

Location	Number	Percent
Counties		
Washington	3,616	49%
Multnomah	1,803	24%
Clackamas	1,147	16%
Yamhill	338	5%
Maion	330	4%
Clark	71	1%
Polk	13	0%
Columbia	12	0%
All other counties	54	1%
Cities		
Portland	1,686	23%
Tigard	660	9%
Sherwood	658	9%
Beaverton	575	8%
Tualatin	575	8%
All other cities	3,230	44%
Total	7,384	100%

Source: U.S. Census Bureau: LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

Table B- 12 shows where employees of firms located Sherwood lived in 2011. More than 80% of people who worked in Sherwood commuted from outside the city.

Table B- 12. Places where workers in Sherwood lived in 2011

Location	Number	Percent
Counties		
Washington	2,013	47%
Clackamas	602	14%
Multnomah	467	11%
Yamhill	460	11%
Marion	224	5%
Clark	76	2%
Linn	52	1%
Lane	46	1%
Polk	44	1%
All other counties	296	7%
Cities		
Sherwood	658	15%
Portland	371	9%
Tigard	233	5%
Beaverton	224	5%
Newberg	207	5%
All other cities	2,587	60%
Total	4,280	100%

Source: U.S. Census Bureau: LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

MANUFACTURED HOMES

Manufactured homes are and will be an important source of affordable housing in Sherwood. They provide a form of homeownership that can be made available to low- and moderate-income households. Cities are required to plan for manufactured homes—both on lots and in parks (ORS 197.475-492).

Generally, manufactured homes in parks are owned by the occupants who pay rent for the space. Monthly housing costs are typically lower for a homeowner in a manufactured home park for several reasons, including the fact that property taxes levied on the value of the land are paid by the property owner rather than the manufactured homeowner. The value of the manufactured home generally does not appreciate in the way a conventional home would, however. Manufactured homeowners in parks are also subject to the mercy of the property owner in terms of rent rates and increases. It is generally not within the means of a manufactured homeowner to relocate a manufactured home to escape rent increases. Living in a park is desirable to some because it can provide a more secure community with on-site managers and amenities, such as laundry and recreation facilities.

Sherwood had 258 manufactured homes in 2000 and 155 manufactured homes in the 2009-2013 period, a decrease of 103 dwellings. According to Census data, roughly 83% of the manufactured homes in Sherwood were owner-occupied in the 2009-2013 period.

OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential development. Table B- 13 presents the inventory of mobile and manufactured home parks within Sherwood in 2014. The results show that Sherwood had 4 manufactured home parks with 186 spaces and 1 vacant space.

Table B- 13. Inventory of Mobile/Manufactured Home Parks, City of Sherwood, 2014

Name	Location	Park Type	Total Spaces	Vacant Spaces
Carriage Park Estates	23077 SW Main St	Family	58	0
Crown Court	27300 SW Pacific Hwy	Family	14	1
Orland Villa	22200 SW Orland Street	Family	24	0
Smith Farm Estates	17197-17180 SW Smith Ave	Family	90	0
Total			186	1

Source: Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>.

Changes in housing cost

According to Zillow, the median sales price of a home in Sherwood increased by about 30% between 2004 and 2014. Housing prices rose steeply prior to 2007, reaching a high of roughly \$338,000, before the housing bubble and recession led to a period of declining housing prices. Housing prices in Sherwood, while following the same general pattern, remain higher than those observed in other parts of the region and the State as a whole.

Housing values

Figure B- 13 shows the median sales price in Oregon, the Portland MSA, Washington County, and Sherwood between 2004-2014. As of January 2015, median sales prices in Sherwood were \$331,300, higher than in Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$241,400).

Figure B- 13. Median Sales Price, Oregon, Portland MSA, Washington County and Sherwood, 2004-2014

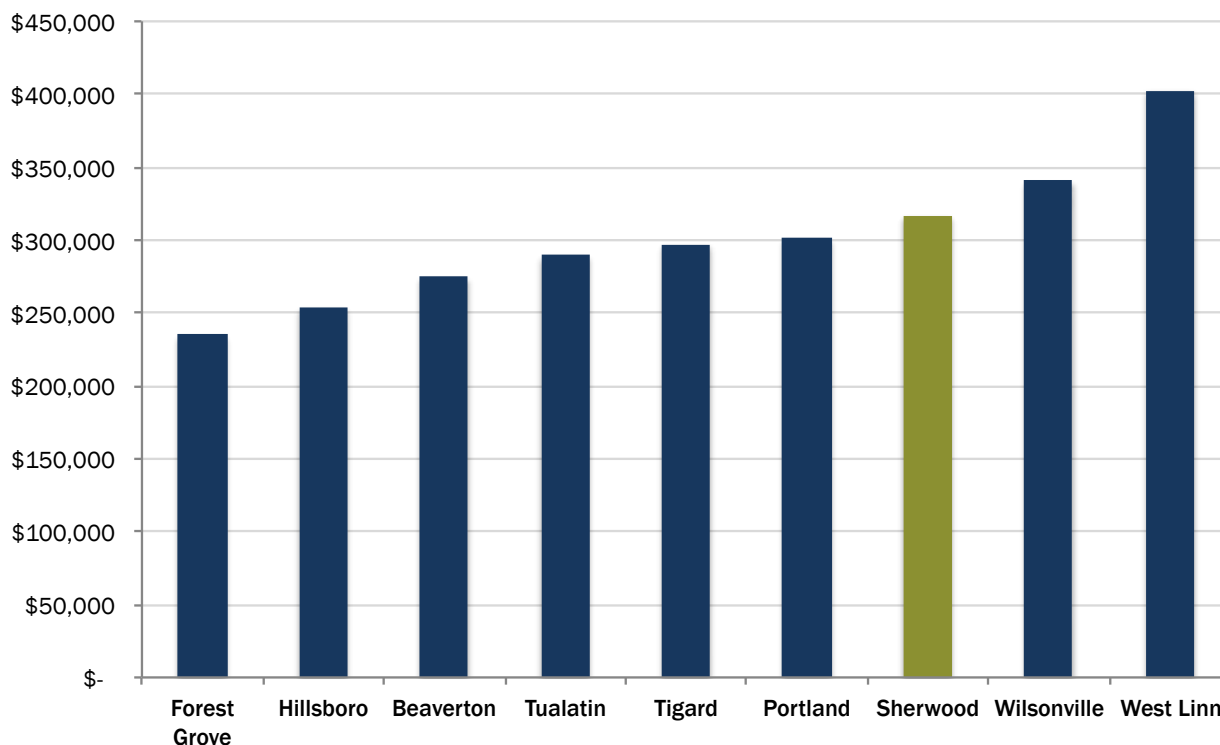


Source: Zillow Real Estate Research.

Note: Gaps in Sherwood's median sales price occur where data was not available.

Figure B- 14 shows median home sales prices for Sherwood and regional cities in January 2015. In that month, median home sale prices in Sherwood were about \$316,500, above sales prices in other Portland westside communities such as Tigard, Tualatin, and Beaverton. Median sales prices in Wilsonville and West Linn were higher than those in Sherwood.

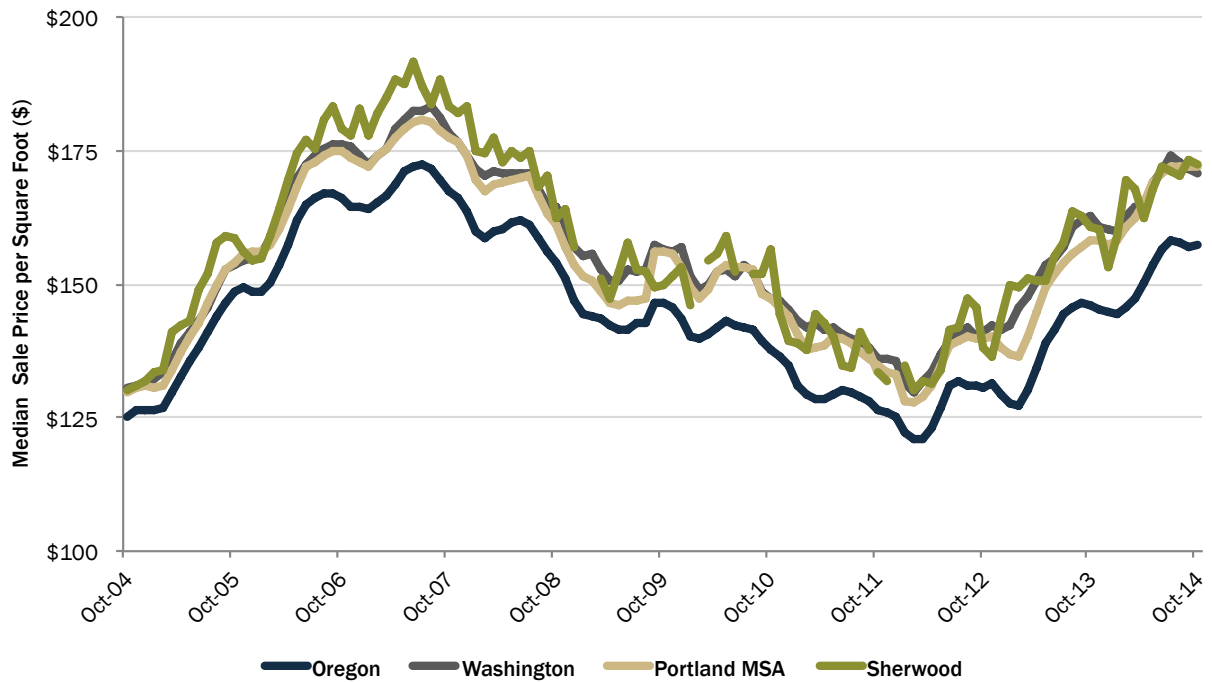
Figure B- 14. Median Home Sales Price, Sherwood, Tualatin, Tigard, Beaverton, Hillsboro, Forest Grove, Portland, January 2015



Source: Zillow Real Estate Research.

Figure B- 15 shows median home sales price per square foot for Oregon, the Portland MSA, Washington County and Sherwood from 2004-2013. Prices per square foot rose in Sherwood from \$130 per square foot in October 2004 to \$192 in July 2007. Prices fell after 2007 and rose again starting in 2011. In October 2014, the median price per square foot in Sherwood was about \$170 dollars, comparable to the price in Washington County and the Portland Region (both about \$170) and above that of the state as a whole (\$157 per square foot).

Figure B- 15. Median Sales Price per Square Foot, Oregon, Portland MSA, Washington County and Sherwood, 2004-2014

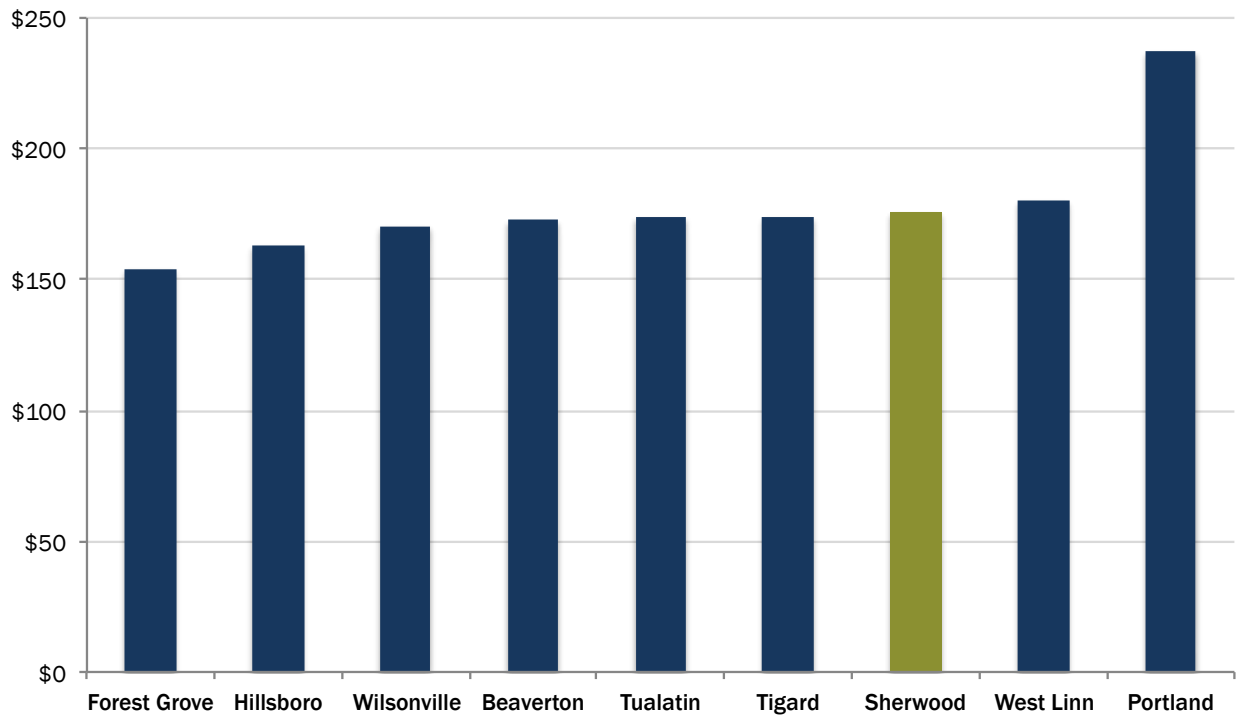


Source: Zillow Real Estate Research.

Note: Gaps in Sherwood's median sales price occur where data was not available.

Figure B- 16 shows median home sales price per square foot for Sherwood and regional cities in January 2015. Of the cities sampled, Sherwood had the third-highest price per square foot, at \$176 per square foot. Prices per square foot in West Linn and Portland were higher, at \$180 and \$237 respectively. While Sherwood's prices were the third highest, they compared very closely to other cities such as Tigard (\$174), Tualatin (\$174), Beaverton (\$173), and Wilsonville (\$171).

Figure B- 16. Median Sales Price Per Square Foot, Forest Grove, Hillsboro, Wilsonville, Beaverton, Tualatin, Tigard, Sherwood, West Linn, and Portland, January 2015.



Source: Zillow Real Estate Research.

Housing rental costs

Table B- 14 shows the median contract rent in Oregon, Multnomah, Washington, and Clackamas counties, and Sherwood, in 2000 and 2009-2013. The median contract in Sherwood in 2009-2013 was \$212 above the median in Washington County.

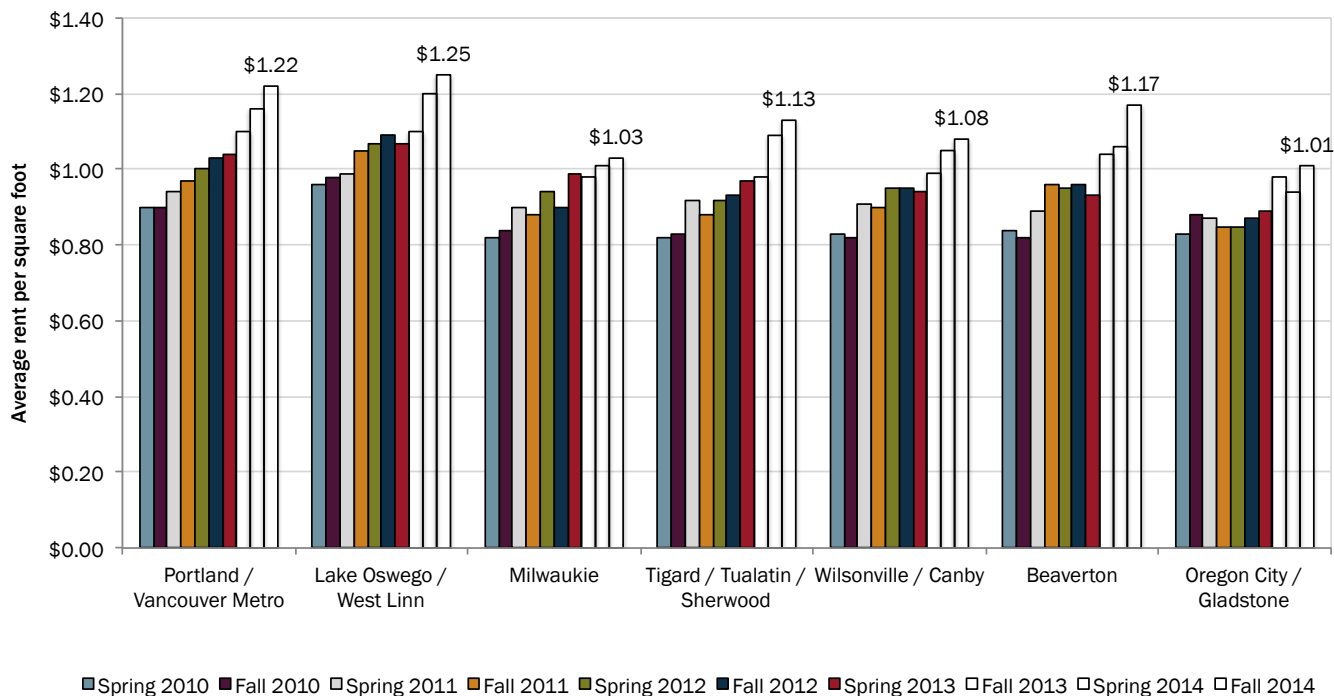
Table B- 14. Median contract rent, inflation-adjusted dollars, Oregon, Multnomah Washington, and Clackamas Counties, and Sherwood, 2000 to 2009-2013

Location	Rent		Change 2000 to 2009-2013	
	2000	2009-2013	Amount	Percent
Oregon	\$741	\$749	\$8	1%
Multnomah County	\$771	\$799	\$28	4%
Washington County	\$878	\$852	-\$26	-3%
Clackamas County	\$853	\$858	\$5	1%
Sherwood	\$880	\$1,064	\$184	21%

Source: U.S. Census 2000 SF3 Table H56, American Community Survey 2012 Table B25058
 Note: All data reported in 2013 dollars; 2000 figures were updated using Consumer Price Index.

Figure B- 17 shows average rent per square foot for apartments in the Portland/Vancouver Metro region and selected submarkets, according to Multifamily NW data between 2010 and 2014. Average rent in the Tigard/Tualatin/Sherwood area submarket was \$1.13 per square foot in Fall 2014, lower than the regional average of \$1.22 per square foot. Between Spring 2010 and Spring 2013, average rent in Tigard/Tualatin/Sherwood area increased by 38%, consistent with the regional increase of 36%.

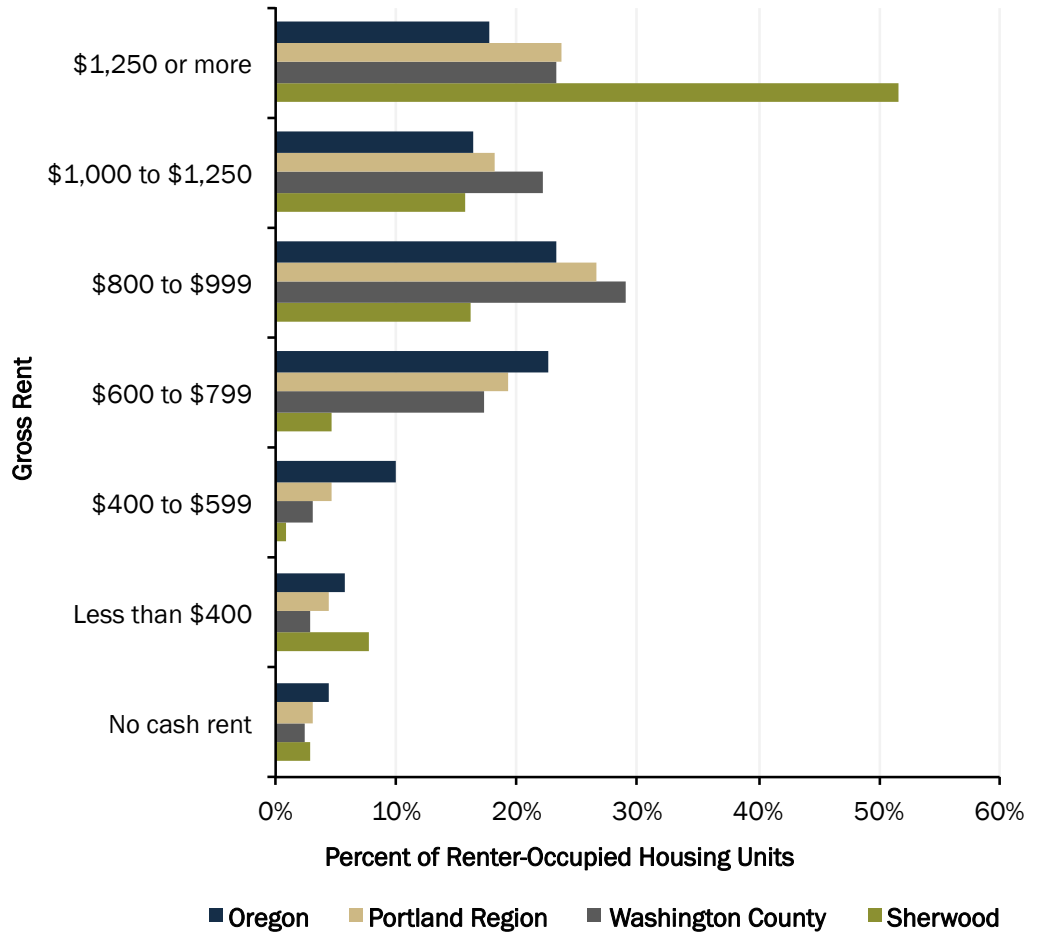
Figure B- 17. Average rent per square foot, Portland/Vancouver Metro and selected submarkets, 2010-2014



Source: Multifamily NW Apartment Reports, Spring 2010 through Fall 2014.
 Note: The average rent price shown on the graph is for Fall 2014

Figure B- 18 shows a comparison of gross rent for renter-occupied housing units in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013.⁴⁹

Figure B- 18. Gross rent, renter occupied housing units, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Table B25063.

⁴⁹ The U.S. Census defines gross rent as: “the amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else).”

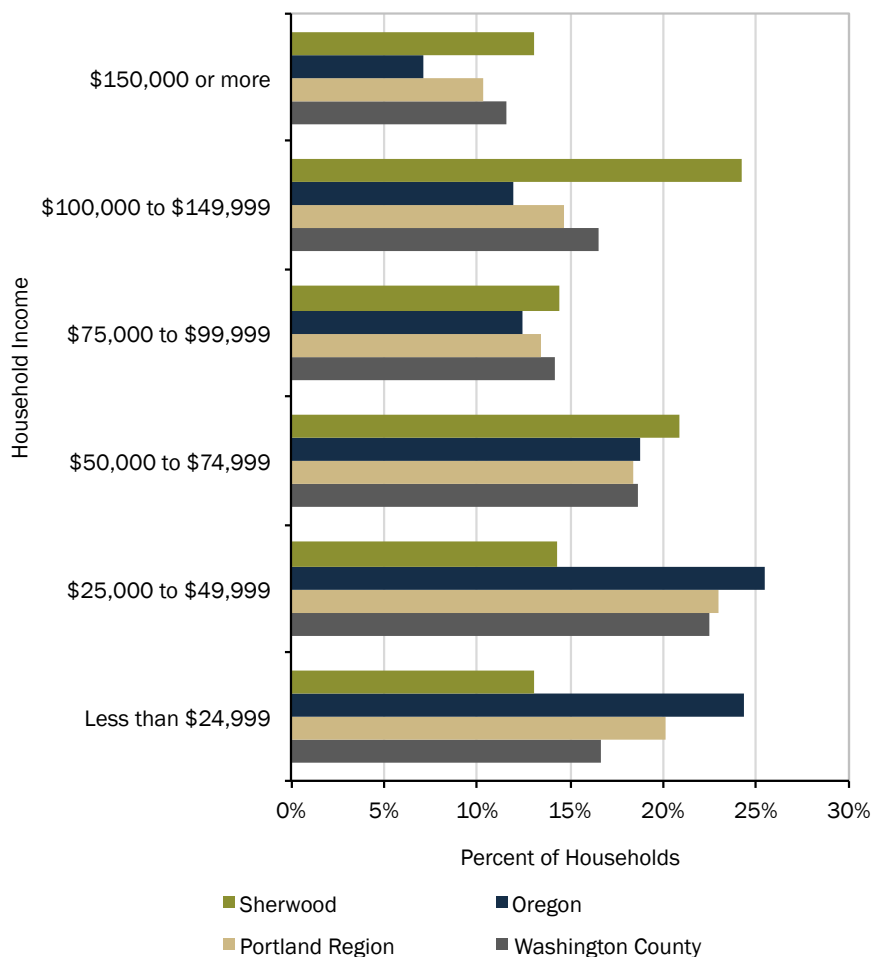
INCOME AND AFFORDABILITY OF HOUSING

This section summarizes regional and local income and housing cost trends. Income is a key determinant in housing choice and a households' ability to afford housing. A review of historical income and housing price trends provides insight into the local and regional housing markets.

The median household income in Sherwood was higher than in nearby counties and the state as a whole in the 2009-2013 period. Median household income in Sherwood was about \$78,400, compared to \$64,200 in Washington County, \$64,400 in Clackamas County, and \$52,500 in Multnomah County. Statewide, the median income was about \$50,300.

Figure B- 19 shows the distribution of household income in Oregon, the Portland Region, and Sherwood in the 2009-2013 period. Sherwood had the highest share of households earning over \$100,000 and the lowest share of households earning less than \$25,000.

Figure B- 19. Household Income, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Table B19001.

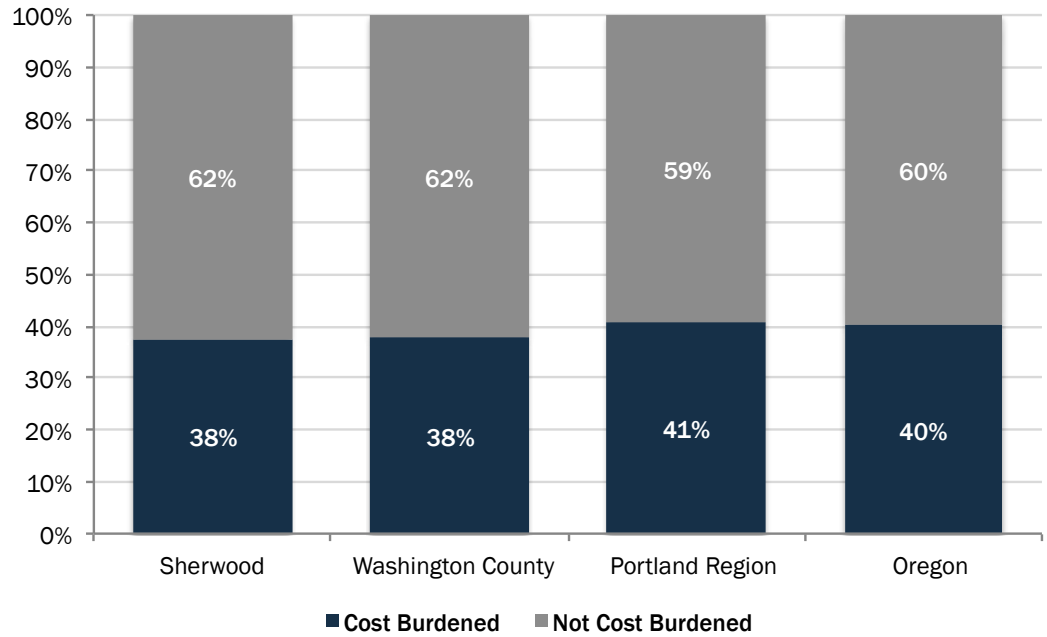
A typical standard used to determine housing affordability is that a household should pay no more than a certain percentage of household income for housing, including payments and interest or rent, utilities, and insurance.⁵⁰ HUD guidelines indicate that households paying more than 30% of their income on housing experience “cost burden,” and households paying more than 50% of their income on housing experience “severe cost burden.” Using cost burden as an indicator of housing affordability is consistent with the Goal 10 requirement to provide housing that is affordable to all households in a community.

According to the U.S. Census, nearly 2,345 households in Sherwood—or 38%—paid more than 30% of their income for housing expenses in the 2009-2013 period. About 44% of renter households in Sherwood were cost burdened, compared with 35% of owner households. In comparison, 40% of Oregon’s households were cost burdened in the 2009-2013 period, with 54% of renter households and 32% of owner households cost burdened.

⁵⁰ Cost burden for renters accounts for the following housing costs: monthly rent, utilities (electricity, gas, and water and sewer), and fuels (wood, oil, etc.). Cost burden for homeowners accounts for the following housing costs: mortgage payments, real estate taxes, insurance, mobile home costs, condominium fees, utilities, and fuels.

Figure B- 20 shows the percentage of the population experiencing housing cost burdens in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013.

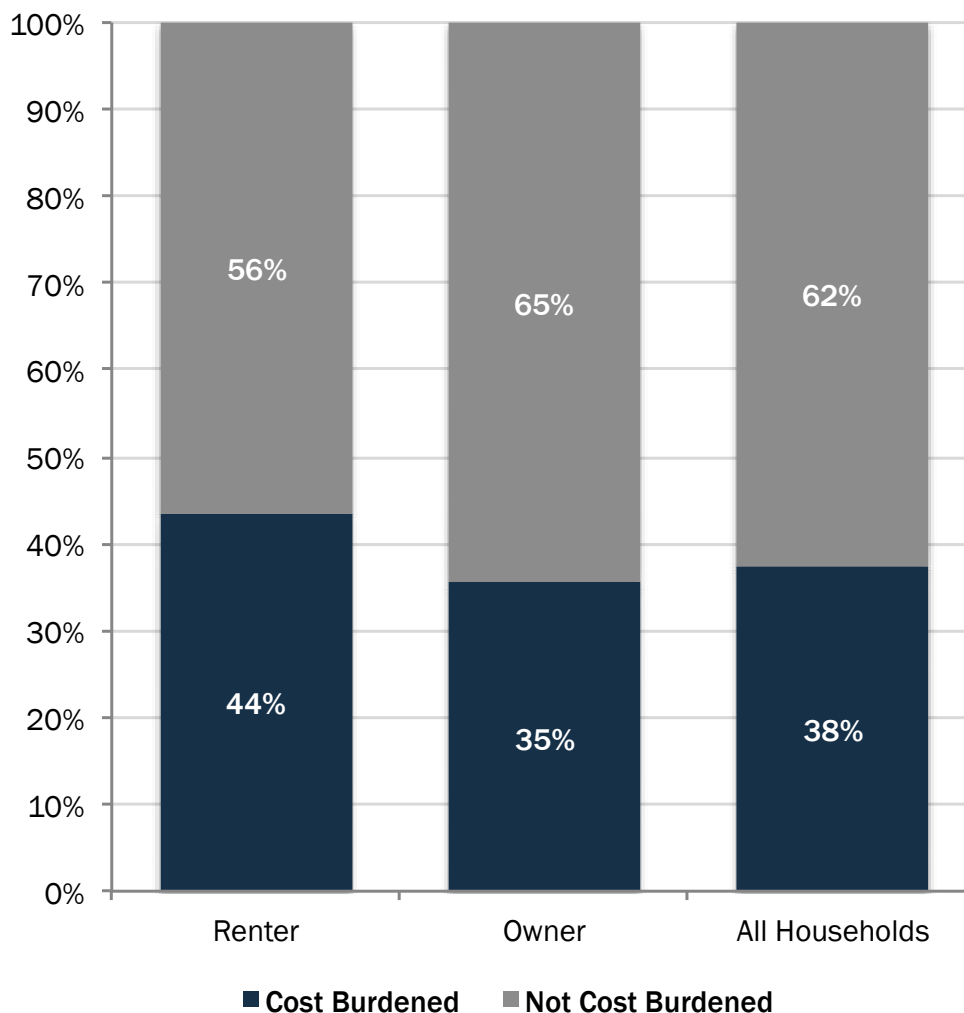
Figure B- 20. Housing cost burden, Oregon, Portland Region, Washington County and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Tables B25070 and B25091.
Note: Households which the Census classifies as "Not computed" were excluded from the above calculations.

Figure B- 21 shows housing cost burden, by tenure, for Sherwood households in 2009-2013. Forty-four percent of Sherwood’s renter households are cost burdened, compared to 49% of renter households in Washington County. Thirty-five percent of owner households are cost burdened, compared to 31% of owner households in Washington County.

Figure B- 21. Housing cost burden by tenure, Sherwood, 2009-2013.



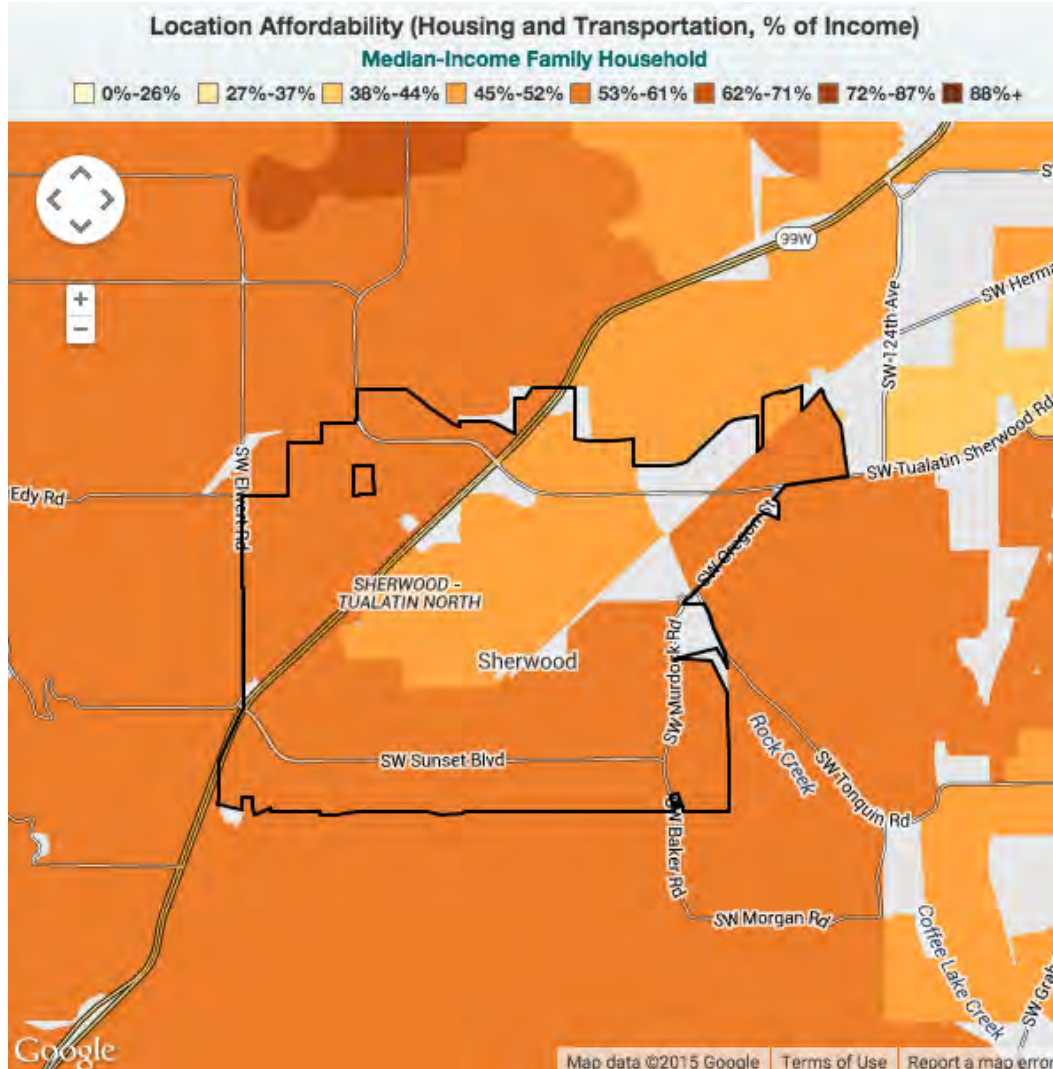
Source: American Community Survey 2009-2013 Tables B25070 and B25091.

Another way to measure cost burden is to consider the costs of housing combined with the costs of transportation. In the *Draft 2014 Urban Growth Report*, Metro considered this perspective on cost burden. Metro considered a household that spends 45% or more of its income on transportation and housing as cost burdened.

According to data from the Location Affordability Portal, from HUD and the U.S. Department of Transportation, the average household in Sherwood spends 54% of its income on housing costs and transportation costs. Figure B- 22 and Figure

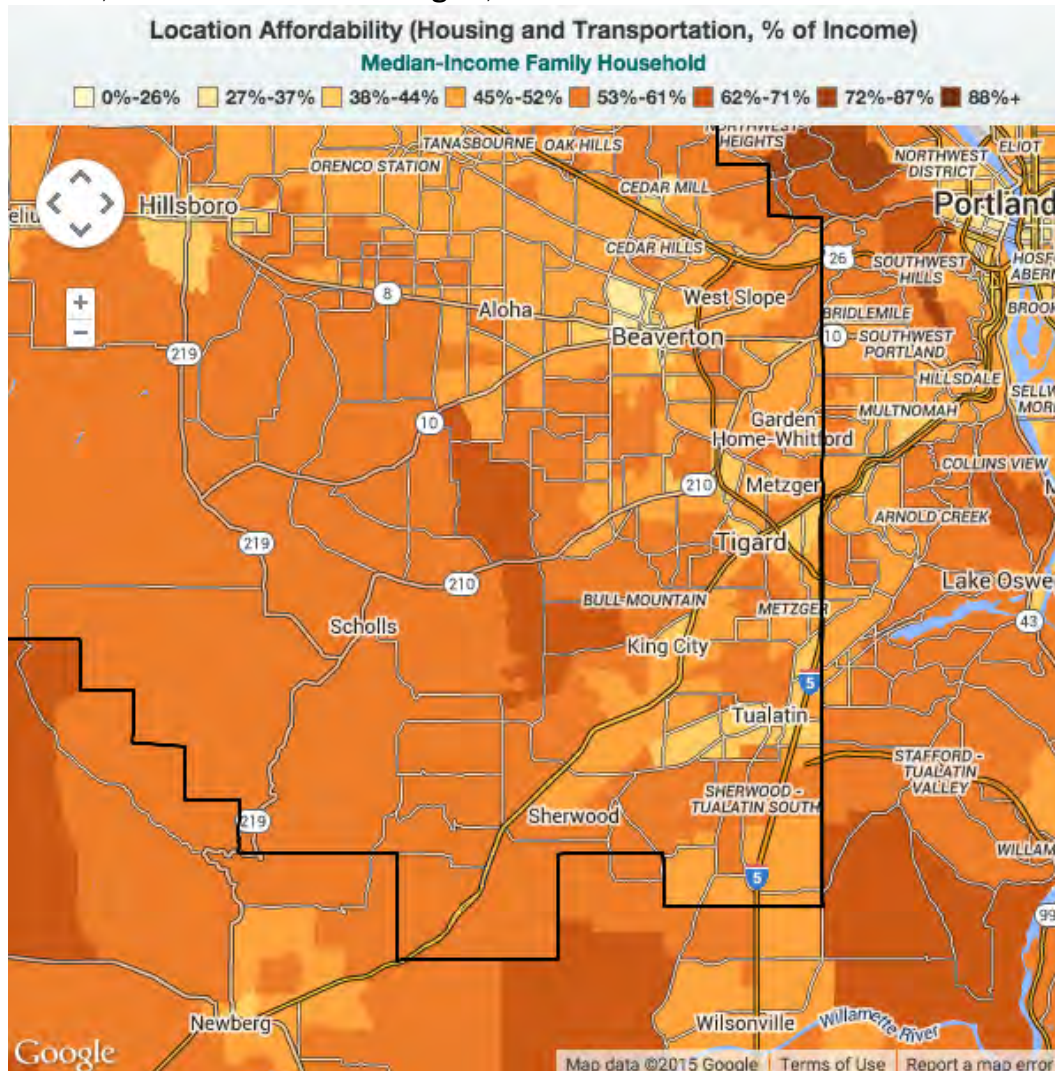
B- 23 show the percentage of income spent on housing and transportation costs in Sherwood and the southwestern part of the Portland region. In comparison to cities such as Tualatin, Wilsonville, and Tigard, households in Sherwood pay a slightly larger percentage of their income on housing and transportation costs. On average, households in these cities pay 50% to 52% of their income on housing and transportation costs.

Figure B- 22. Housing and transportation costs as a percentage of median family income, Sherwood, 2014



Source: HUD and US DOT's Location Affordability Portal
<http://locationaffordability.info/>

Figure B- 23. Housing and transportation costs as a percentage of median family income, southwestern Portland region, 2014



While cost burden is a common measure of housing affordability, it does have some limitations. Two important limitations are:

- A household is defined as cost burdened if the housing costs exceed 30% of their income, regardless of actual income. The remaining 70% of income is expected to be spent on non-discretionary expenses, such as food or medical care, and on discretionary expenses. Households with higher income may be able to pay more than 30% of their income on housing without impacting the household's ability to pay for necessary non-discretionary expenses.
- Cost burden compares income to housing costs and does not account for accumulated wealth. As a result, the estimate of how much a household can afford to pay for housing does not include the impact of accumulated

wealth on a household’s ability to pay for housing. For example, a household with retired people may have relatively low income but may have accumulated assets (such as profits from selling another house) that allow them to purchase a house that would be considered unaffordable to them based on the cost burden indicator.

Cost burden is only one indicator of housing affordability. Another way of exploring the issue of financial need is to review wage rates and housing affordability. Table B- 15 shows an illustration of affordable housing wage and rent gap for households in the Portland MSA at different percentages of median family income (MFI). The data are for a typical family of four. The results indicate that a household must earn \$17.73 an hour to afford a two-bedroom unit according to HUD's market rate rent estimate.

Table B- 15. Affordable Housing Wage Gap, Portland MSA, 2014

Value	Minimum Wage	30% MFI	50% MFI	80% MFI	100% MFI	120% MFI
Annual Hours	2,080	2,080	2,080	2,080	2,080	2,080
Derived Hourly Wage	\$9.10	\$10.01	\$16.68	\$26.69	\$33.37	\$40.04
Annual Wage	\$18,928	\$20,820	\$34,700	\$55,520	\$69,400	\$83,280
Annual Affordable Rent	\$5,678	\$6,246	\$10,410	\$16,656	\$20,820	\$24,984
Monthly Affordable Rent	\$473	\$521	\$868	\$1,388	\$1,735	\$2,082
HUD Fair Market Rent (2 Bedroom)	\$922	\$922	\$922	\$922	\$922	\$922
Is HUD Fair Market Rent Higher Than The Monthly Affordable Rent?	Yes	Yes	Yes	No	No	No
Rent Paid Monthly OVER 30% of Income	\$449	\$402	na	na	na	na
Rent Paid Annually OVER 30% of Income	\$5,386	\$4,818	na	na	na	na
Percentage of Income Paid OVER 30% of Income for Rent	28%	23%	na	na	na	na
Percentage of Income Spent on Housing	58%	53%	32%	20%	16%	13%
For this area what would the "Affordable Housing Wage" be?	\$17.73	\$17.73	\$17.73	\$17.73	\$17.73	\$17.73
The Affordable Housing Wage Gap IS:	\$8.63	\$7.72	\$1.05	na	na	na

Source: FMR comes from HUD's FY 2014 Two-Bedroom FMR for Portland-Vancouver-Hillsboro MSA. Minimum wage from Oregon's Bureau of Labor and Industries. MFI from HUD's FY 2014 MFI for Portland- Vancouver -Hillsboro MSA.

Table B- 16 shows a rough estimate of affordable housing cost and units by income levels for Sherwood in 2014 based on Census data about household income, the value of owner-occupied housing in Sherwood, and rental costs in Sherwood. Several points should be kept in mind when interpreting this data:

- Affordable monthly housing costs and estimate of affordable purchase prices are based on HUD income standards and assume that a household will not spend more than 30% of household income on housing costs. Some households pay more than 30% of household income on housing costs, generally because they are unable to find more affordable housing or because wealthier households are able to pay a larger share of income for housing costs.
- HUD’s affordability guidelines for Fair Market Rent are based on median family income and provide a rough estimate of financial need. These guidelines may mask other barriers to affordable housing such as move-in costs, competition for housing from higher-income households, and availability of suitable units. They also ignore other important

factors such as accumulated assets, purchasing housing as an investment, and the effect of down payments and interest rates on housing affordability.

- Households compete for housing in the marketplace. In other words, affordable housing units are not necessarily *available* to low-income households. For example, if an area has a total of 50 dwelling units that are affordable to households earning 30% of median family income, 50% of those units may already be occupied by households that earn more than 30% of median family income.

The data in Table B- 16 indicate that in 2014:

- About 20% of households in Sherwood could not afford a two-bedroom apartment at HUD's fair market rent level of \$922.
- A household earning median family income (\$69,400) could afford a home valued up to about \$173,500.
- Sherwood has a deficit of about 660 dwellings to households earning less than \$35,000 (or 50% of the Portland metropolitan area's median family income).

Table B- 16. Rough estimates of housing affordability, Sherwood, 2009-2013

Income Level	Number of HH	Percent	Affordable Monthly Housing Cost	Crude Estimate of Affordable Purchase Owner-Occupied Unit	Est. Number of Owner Units	Est. Number of Renter Units	Surplus (Deficit)	HUD Fair Market Rent (FMR) in 2014
Less than \$10,000	186	3%	\$0 to \$250	\$0 to \$25,000	44	60	(82)	
\$10,000 to \$14,999	280	4%	\$250 to \$375	\$25,000 to \$37,000	40	69	(171)	
\$15,000 to \$24,999	364	6%	\$375 to \$625	\$37,500 to \$62,500	35	36	(293)	
\$25,000 to \$34,999	298	5%	\$625 to \$875	\$62,500 to \$87,500	71	111	(116)	Studio: \$666
\$35,000 to \$49,999	618	10%	\$875 to \$1,250	\$87,500 to \$125,000	77	510	(31)	1 bdrm: \$774
\$50,000 to \$74,999	1,333	21%	\$1,250 to \$1,875	\$125,000 to \$187,500	360	678	(295)	2 bdrm: \$922
Portland MSA 2014 MFI: \$69,400			\$1,735	\$173,500				3 bdrm: \$1,359
\$75,000 to \$99,999	922	14%	\$1,875 to \$2,450	\$187,500 to \$245,000	748	172	(2)	4 bdrm: \$1,633
\$100,000 to \$149,999	1,543	24%	\$2,450 to \$3,750	\$245,000 to \$375,000	2,172	23	652	
\$150,000 or more	836	13%	More than \$3,750	More than \$375,000	1,151	23	338	
Total	6,380	100%			4,698	1,682	0	

Source: FMR comes from HUD's FY 2014 Two-Bedroom FMR for Portland-Vancouver-Hillsboro MSA. Minimum wage from Oregon's Bureau of Labor and Industries. MFI from HUD's FY 2014 MFI for Portland-Vancouver-Hillsboro MSA; Data about the share of owner and renter households and their income in Sherwood comes from the American Community Survey, 2009-2013 Tables B25075, B25063, B19001.

Table B- 17 shows that between 2000 and 2009-2013, both median household income and housing values increased substantially, with increases in home value outpacing growth in income. Median household income increased between 2000 and the 2009-2013 period.

Housing in Sherwood has become less affordable since 2000, consistent with county and statewide trends. In 2009-2013, the median home value was 3.8 times the median household income in Sherwood, up from 2.9 in 2000.

Housing in Sherwood is relatively affordable, compared to the county and state. In 2009-2013, the median home value was 4.4 times the median household income in Washington County, with a statewide average of 4.7.

Table B- 17. Household income to home value, 2013 dollars, Oregon, Washington County, and Sherwood, 2000 and 2009-2013.

	2000	2009-2013	Change 2000 to 2013	
			Number	Percent
Oregon				
Median HH Income	\$57,282	\$50,229	-\$7,053	-12%
Median Owner Value	\$204,120	\$238,000	\$33,880	17%
Ratio of Home Value to Income	3.56	4.74	1.17	33%
Washington County				
Median HH Income	\$72,971	\$64,180	-\$8,791	-12%
Median Owner Value	\$252,560	\$282,400	\$29,840	12%
Ratio of Home Value to Income	3.46	4.40	0.94	27%
Sherwood				
Median HH Income	\$87,525	\$78,355	-\$9,170	-10%
Median Owner Value	\$254,100	\$300,300	\$46,200	18%
Ratio of Home Value to Income	2.90	3.83	0.93	32%

Source: Census 2000 SF1 P53 P77 P82 P87, SF3 H7 H63 H76, American Community Survey 2009-2013 DP03, B25003, B25064, B25077.

Sherwood Housing Needs Analysis 2018 to 2038

Prepared for:

City of Sherwood

December 2017

ECONorthwest
ECONOMICS • FINANCE • PLANNING

Contact Information

Beth Goodman and Robert Parker, AICP, prepared this report as a subcontractor to Cogan Owens Greene for the City of Sherwood. ECONorthwest is solely responsible for its content, any errors or omissions.

ECONorthwest specializes in economics, planning, and finance. Established in 1974, ECONorthwest has over three decades of experience helping clients make sound decisions based on rigorous economic, planning, and financial analysis.

For more information about this report, please contact:

Erika Palmer, Planning Manager
22560 SW Pine Street
Sherwood, Oregon 97140
503-625-4208
PalmerE@SherwoodOregon.gov

Acknowledgements

Cogan Owens Greene, ECONorthwest and the City of Sherwood thank the many people who helped to develop the Sherwood Draft Housing Needs Analysis.

Regional Partners

Brian Harper, Metro

State of Oregon

Anne Debbaut, Regional Representative, DLCD

Gordon Howard, Urban Planning Specialist, DLCD

City of Sherwood

Julia Hajduk, Community Development Director

Erika Palmer, Planning Manager

Carrie Brennecke AICP, Senior Planner

Brad Kilby AICP, (former) Planning Manager

Connie Randall, (former) Planning Manager

Michelle Miller AICP, (former) Senior Planner

Table of Contents

Executive Summary	i
How has Sherwood’s Population Changed in Recent Years?	i
What Factors May Affect Future Growth in Sherwood?	ii
What Are the Characteristics of Sherwood’s Housing Market?	iii
How Much Housing Growth is Forecast, and Can that Growth be Accommodated within Sherwood?	v
What if Sherwood Grows Faster?.....	v
What are the Implications for Sherwood’s Housing Policies?	vi
1 Introduction	1
Background	1
Organization of the Report	2
Framework for a Housing Needs Analysis	3
Oregon housing policy	4
2 Historical and Recent Development Trends	8
3 Housing Need in Sherwood	12
Projection of New Housing Units Needed in the Next 20 Years....	13
Demographic and Socioeconomic Factors Affecting Housing Choice.....	14
Regional and Local Trends in Housing Costs and Affordability....	24
Forecast of Housing by Type and Density of Housing.....	27
4 Residential Land Sufficiency	32
Residential Buildable Land	32
Residential Development Capacity	35
Residential Land Sufficiency	39
Potential growth in Sherwood West.....	40
Conclusions and Recommendations	41
Appendix A. Appendix A. Residential Buildable Lands Inventory	1
Methodology.....	1
Results of the Buildable Lands Inventory	5
Appendix B. Trends Affecting Housing Need in Sherwood	1
Historical and Recent Development Trends.....	1
National Housing Trends	11
State Demographic Trends.....	23
Regional and Local Demographic Trends.....	24
Manufactured Homes.....	35

Income and Affordability of Housing.....42

This page intentionally left blank.

Executive Summary

This is an executive summary of the findings of the Sherwood Housing Needs Analysis for the 2018 to 2038 period. The housing needs analysis provides Sherwood with a factual basis to support future planning efforts related to housing, including Concept Planning for Sherwood West, and prepares to update and revise the City's Comprehensive Plan policies.

The housing needs analysis is intended to comply with requirements of statewide planning policies that govern planning for housing and residential development, Goal 10, it's implementing Metropolitan Housing Rule (OAR 660-007), and Metro's 2040 Functional Growth Management Plan. Taken together, the City's primary obligations from Goal 10 are to (1) designate land in a way that provides the opportunity for 50% of new housing to be either multifamily or single-family attached housing (e.g., townhouses); (2) achieve an average density of six dwelling units per net acre; and (3) provide enough land to accommodate forecasted housing needs for the next 20 years. Sherwood is able to meet these requirements and can accommodate most of the new housing forecast, as described in this summary.

HOW HAS SHERWOOD'S POPULATION CHANGED IN RECENT YEARS?

The basis for the housing needs analysis is an understanding of the demographic characteristics of Sherwood's residents.¹

- **Sherwood's population grew relatively fast in recent years.** Sherwood's population increased from 3,000 people in 1990 to nearly 18,600 people in 2013, averaging 8% annual growth. Sherwood's fastest period of growth was during the 1990s, consistent with statewide trends. Between 2000-2013, Sherwood grew by 6,600 people, at an average rate of nearly 3.5% per year. For comparison, Washington County grew at 2.5% annually between 1990-2013 and the Portland Region grew at 1.6% per year.
- **Sherwood's population is aging.** People aged 45 years and older were the fastest growing age group in Sherwood between 2000 and 2010, consistent with state and national trends. By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015) and 25% in the Portland Region (up from 19% in 2015).

¹ The majority of data quoted in this analysis is from the U.S. Census American Community survey, with population data from the Population Research Center at Portland State University and development data from the City's Building Permit database.

It is reasonable to assume that the share of people 60 years and older will grow relatively quickly in Sherwood as well.

- **Sherwood is attracting younger people and more households with children.** In 2010, the median age in Sherwood was 34.3 years old, compared to Washington County’s median age of 35.3 years and the State median of 38.4. Sherwood has a larger share of households with children (47% of households), compared with Washington County (33%) or the Portland Region (29%). The Millennial generation—people born roughly between 1980 to 2000—are the largest age group in Oregon and will account for the majority of household growth in Sherwood over the next 20 years.
- **Sherwood’s population is becoming more ethnically diverse.** About 6% of Sherwood’s population is Latino, an increase from 4.7% in 2000. In comparison to Washington County and the Portland Region, Sherwood is less ethnically diverse. In the 2009-2013 period, 16% of Washington County residents, and 12% Portland Region residents, were Latino.

WHAT FACTORS MAY AFFECT FUTURE GROWTH IN SHERWOOD?

If these trends continue, population will result in changes in the types of housing demanded or “needed” in Sherwood in the future.

- **The aging of the population is likely to result in increased demand for smaller single-family housing, multifamily housing, and housing for seniors.** People over 65 years old will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes) as they continue to age.
- **The growth of younger and diversified households is likely to result in increased demand for a wider variety of affordable housing appropriate for families with children, such as small single-family housing, townhouses, duplexes, and multifamily housing.** If Sherwood continues to attract young residents, then it will continue to have demand for housing for families, especially housing affordable to younger families with moderate incomes. Growth in this population will result in growth

in demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.²

- **Changes in commuting patterns could affect future growth in Sherwood.** Sherwood is part of a complex, interconnected regional economy. Demand for housing by workers at businesses in Sherwood may change with significant fluctuations in fuel and commuting costs, as well as substantial decreases in the capacity of highways to accommodate commuting.
- **Sherwood households have relatively high income, which affects the type of housing that is affordable.** Income is a key determinant of housing choice. Sherwood’s median household income (\$78,400) is more than 20% higher than Washington County’s median household income (\$64,200). In addition, Sherwood has a smaller share of population below the federal poverty line (7.6%) than the averages of Washington County (11.4%) and the Portland Region (13.9%).

WHAT ARE THE CHARACTERISTICS OF SHERWOOD’S HOUSING MARKET?

The existing housing stock in Sherwood, homeownership patterns, and existing housing costs will shape changes in Sherwood’s housing market in the future.

- **Sherwood’s housing stock is predominantly single-family detached.** About 75% of Sherwood’s housing stock is single-family detached, 8% is single-family attached (such as townhomes), and 18% is multifamily (such as duplexes or apartments). Sixty-nine percent of new housing permitted in Sherwood between 2000 and 2014 was single-family detached housing.
- **Almost three quarters of Sherwood’s residents own their homes.** Homeownership rates in Sherwood are above Washington County (54%), the Portland Region (60%), and Oregon (62%) averages.
- **Homeownership costs increased in Sherwood, consistent with national trends.** Median sales prices for homes in Sherwood increased by about 30% between 2004 and 2014, from about \$245,000 to \$316,500. The median

² The housing needs analysis assumes that housing is affordable if housing costs are less than 30% of a household’s gross income. For a household earning \$6,500 (the median household income in Sherwood), monthly housing costs of less than \$1,960 are considered affordable.

home value in Sherwood is 3.8 times the median household income, up from 2.9 times the median household income in 2000.

- **Housing sales prices are higher in Sherwood than the regional averages.** As of January 2015, median sales price in Sherwood was \$316,500, which is higher than the Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$237,300) median sales prices. Median sales prices were higher in Sherwood than in other Portland westside communities such as Tigard, Tualatin, and Beaverton, but lower than Wilsonville or West Linn.
- **Rental costs are higher overall in Sherwood than the regional averages.** The median rent in Sherwood was \$1,064, compared to Washington County's average of \$852.
- **More than one-third of Sherwood's households have housing affordability problems.** Thirty-eight percent of Sherwood's households were cost-burdened (i.e., paid more than 30% of their income on rent or homeownership costs). Renters were more likely to be cost-burdened (40% of renters were cost-burdened), compared to homeowners (35% were cost-burdened) in Sherwood. These levels of cost burden are consistent with regional averages. In Washington County in the 2009-2013 period, 38% of households were cost burdened, compared to 41% in the Portland Region.
- ~~Future housing affordability will depend on the relationship between income and housing price. The key question is whether housing prices will continue to outpace income growth. Answering this question is difficult because of the complexity of the factors that affect both income growth and housing prices. It is clear, however, that Sherwood will need a wider variety of housing, especially housing affordable to low and moderate income households.~~

HOW MUCH HOUSING GROWTH IS FORECAST, AND CAN THAT GROWTH BE ACCOMMODATED WITHIN SHERWOOD?

The housing needs analysis in this report is based on Metro's coordinated forecast of household growth in Sherwood. The forecast includes growth in both areas within the city limits, as well as areas currently outside the city limits that the City expects to annex for residential uses (most notably the Brookman area).

- **Sherwood is forecast to add 1,653 new households between 2018 and 2038.** Of these, 697 new households are inside the existing city limits; 956 new households are outside the current city limits in the Brookman Area.
- **Sherwood's land base can accommodate most of the forecast for growth.** Vacant and partially vacant land in the Sherwood Planning Area has capacity to accommodate 1,156 new dwelling units. Sherwood can accommodate about 70% of the forecast for new housing on areas within the city limits and Brookman Area.
- **Sherwood has a deficit of land for housing.** Sherwood has a deficit of land for 497 dwelling units. ~~The largest deficits are in Medium Density Residential Low (121 dwelling units), Medium Density Residential High (153 dwelling units), and High Density Residential (179 dwelling units).~~
- **To provide adequate land supply, Sherwood will need to continue to annex the Brookman area.** Without the Brookman area developing, the City has a projected deficit of 922 dwelling units. Sherwood will need to continue to annex the Brookman area in order to accommodate the City's forecast of residential growth. The City recently annexed about 98 acres in the Brookman Area. The annexed land is in the center of the Brookman Area and has relatively few owners (about 8 property owners). Annexing and developing other areas, with a larger number of owners, may be more challenging, to the extent that the property owners have to come to agreement about development.

WHAT IF SHERWOOD GROWS FASTER?

- **The forecast for growth in Sherwood is considerably below historical growth rates.** Metro's forecast for new housing in Sherwood shows that households will grow at less than 1% per year. In comparison, Sherwood's population grew at 3.4% per year between 2000 and 2013 and 8% per year between 1990 and 2013. If Sherwood grows faster than Metro's forecast during the 2018 to 2038 period, then Sherwood will have a larger deficit of land needed to accommodate growth.

- **At faster growth rates, Sherwood’s land base has enough capacity for several years of growth.** At growth rates between 2% to 4% of growth annually, land inside the Sherwood city limits can accommodate two to five years of growth. With capacity in the Brookman Area, Sherwood can accommodate four to ten years of growth at these growth rates.
- **Additional housing growth in Sherwood depends the availability of development-ready land.** The amount of growth likely to happen in Sherwood over the next few years is largely dependent on when the Brookman Area is annexed, when the Sherwood West area is brought into the urban growth boundary and annexed, and when urban services (such as roads, water, and sanitary sewer) are developed in each area. The City recently annexed about 98 acres in the Brookman Area.

WHAT ARE THE IMPLICATIONS FOR SHERWOOD’S HOUSING POLICIES?

- ~~Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman area.~~ The growth rate of Metro’s forecast for household growth (0.8% average annual growth) is considerably lower than the City’s historical population growth rate over the last two decades (8% average annual growth). Metro’s forecast includes growth that can be generally accommodated within the Sherwood city limits and Brookman. Given the limited supply of buildable land within Sherwood, it is likely that the City’s residential growth will slow until Sherwood West is made development ready.
- ~~Sherwood has a relatively limited supply of land for moderate- and higher-density multifamily housing.~~ The limited supply of land in these zones is a barrier to development of townhouses and multifamily housing, which are needed to meet housing demand resulting from growth of people over 65, young families, and moderate income households.
- ~~The results of the Housing Needs Analysis highlight questions for the update of the City’s Comprehensive Plan and the Concept Planning of Sherwood West.~~
 - ~~Providing housing opportunities for first time home buyers and community elders (who prefer to age in place or downsize their housing) will require a wider range of housing types. Examples of these housing types include: single family homes on smaller lots, clustered housing, cottages or townhomes, duplexes, tri-plexes, four-plexes, garden apartments, or mid-rise apartments. Where should Sherwood consider providing a wider range of housing types? What types of housing should Sherwood plan for?~~

- ~~Changes in demographics and income for Sherwood and regional residents will require accommodating a wider range of housing types. How many of Sherwood's needed units should the city plan to accommodate within the city limits? How much of Sherwood's needed units should be accommodated in the Brookman Area and in Sherwood West?~~
- ~~What design features and greenspaces would be important to consider for new housing?~~
- ~~What other design standards would be needed to "keep Sherwood Sherwood"?~~

1 Introduction

This report presents the Sherwood Housing Needs Analysis 2018 to 2038. The housing needs analysis provides Sherwood with a factual basis to support future planning efforts related to housing, including Concept Planning for Sherwood West, and prepares to update and revise the City's Comprehensive Plan policies. This report was based on the draft Sherwood Housing Needs Analysis 2015 to 2035 report, from June 2015.

It is intended to comply with statewide planning policies that govern planning for housing and residential development, Goal 10, OAR 660-007, and Metro's Functional Growth Management Plan. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

This report provides Sherwood with a factual basis to support future planning efforts related to housing and options for addressing unmet housing needs. It provides specific analysis that is required for a jurisdiction in Oregon to comply with state policies.

BACKGROUND

Sherwood is located at the southwestern edge of the Portland metropolitan urban growth boundary (UGB). Over the 2000 to 2014 period, Sherwood had a substantial amount of residential growth. Residential development included all of the different housing types with single family detached housing concentrated in the 2000 to 2005 period. In part due to this growth and limited land supply for new homes, Sherwood is embarking on a Concept Plan for the Sherwood West urban reserve. Concurrently, the City is updating its factual basis for an eventual update of its Comprehensive Plan.

This housing needs analysis provides a factual basis to inform both an update of the residential Comprehensive Plan policies and the Concept Plan for Sherwood West. This analysis provides:

- Information about the characteristics of Sherwood's housing market, in the context of Washington County, the Portland metropolitan region, and Oregon,
- Information about the types and density of housing developed since 2000, changes in homeownership patterns,
- Changes in housing cost and affordability, and other housing market characteristics; and
- A forecast of residential growth in Sherwood for the 2018 to 2038 period.

As required by OAR 660-024, this forecast is based on Metro’s household forecast and demographics and economic trends that will affect housing demand over the next 20 years.

ORGANIZATION OF THE REPORT

The main body of this report presents a summary of key data and analysis used in the housing needs analysis. The appendices present detailed tables and charts for the housing needs analysis. This document is organized as follows:

- **Chapter 2. Historical and Recent Development Trends** presents a high-level summary of residential development in Sherwood.
- **Chapter 3. Housing Demand and Need** presents a housing needs analysis consistent with requirements in the Planning for Residential Growth Workbook. Detailed tables and charts supporting the demographic and other information discussed in Chapter 4 is presented in Appendix B.
- **Chapter 4. Residential Land Sufficiency** estimates the residential land sufficiency in Sherwood needed to accommodate expected growth over the planning period.
- **Appendix A. Residential Buildable Land Inventory Report**
- **Appendix B. Trends Affecting Housing Need in Sherwood**

FRAMEWORK FOR A HOUSING NEEDS ANALYSIS

People view homes and communities in a wide range of ways. Economists view housing as a bundle of services for which people are willing to pay. Shelter is one service, but housing typically also includes:

- Proximity to other attractions (job, shopping, recreation),
- Amenities (type and quality of fixtures and appliances, landscaping, views), prestige, and
- Access to public services (quality of schools).

Because it is impossible to maximize all these services and simultaneously minimize costs, households must, and do, make tradeoffs. What individuals can purchase for their money is influenced by individuals' life circumstances as well as economic forces and government policy. Among households and income levels, preferences vary. Attributes homebuyers and renters seek are a function of many factors that may include income, age of household head, number of people and children in the household, number of workers and job locations, educational opportunities, number of automobiles, neighborhood amenities and so on.

Thus, the housing choices of individual households are influenced in complex ways by dozens of factors; and the housing market in the Portland Region, Washington County, and Sherwood is the result of the individual decisions of thousands of households. These points help to underscore the complexity of projecting what types of housing will be built in Sherwood between 2018 and 2038.

The complex nature of the housing market was demonstrated by the unprecedented boom and bust during the past decade. This complexity does not eliminate the need for some type of forecast of future housing demand and need and the resulting implications for land demand and consumption. Such forecasts are inherently uncertain. Their usefulness for public policy often derives more from the explanation of their underlying assumptions about the dynamics of markets and policies than from the specific estimates of future demand and need.

Thus, we begin our housing analysis with a framework for thinking about housing and residential markets, and how public policy affects those markets.

OREGON HOUSING POLICY

Statewide planning Goal 10

Sherwood's primarily obligations under Goal 10 are to:

- Designate land in a way that 50% of new housing could be either multifamily or single-family attached housing (e.g., townhouses)
 - Provide opportunities to achieve an average density of six dwelling units per net acre
 - Provide opportunities for development of needed housing types: single-family detached, single-family attached, and multifamily housing.
-

The passage of the Oregon Land Use Planning Act of 1974 (ORS Chapter 197), established the Land Conservation and Development Commission (LCDC), and the Department of Land Conservation and Development (DLCD). The Act required the Commission to develop and adopt a set of statewide planning goals. Goal 10 addresses housing in Oregon and provides guidelines for local governments to follow in developing their local comprehensive land use plans and implementing policies.

At a minimum, local housing policies must meet the requirements of Goal 10 and the statutes and administrative rules that implement it (ORS 197.295 to 197.314, ORS 197.475 to 197.490, and OAR 600-008).³ Jurisdictions located in the Metro UGB are also required to comply with Metropolitan Housing in OAR 660-007 and Title 7 of Metro's Urban Growth Management Functional Plan in the Metro Code (3.07 Title 7).

Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as "housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels." ORS 197.303 defines needed housing types:

- (a) Housing that includes, but is not limited to, attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;⁴
- (c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490; and
- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions.

³ ORS 197.296 only applies to cities with populations over 25,000.

⁴ Government assisted housing can be any housing type listed in ORS 197.303 (a), (c), or (d).

In summary, Sherwood must identify needs for all of the housing types listed above as well as adopt policies that increase the likelihood that needed housing types will be developed.

The Metropolitan Housing Rule

OAR 660-007 (the Metropolitan Housing rule) is designed to “assure opportunity for the provision of adequate numbers of needed housing units and the efficient use of land within the Metropolitan Portland (Metro) urban growth boundary.” OAR 660-0070-005(12) provides a Metro-specific definition of needed housing:

"Needed Housing" defined. Until the beginning of the first periodic review of a local government's acknowledged comprehensive plan, "needed housing" means housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels.

The Metropolitan Housing Rule also requires cities to develop residential plan designations:

(1) Plan designations that allow or require residential uses shall be assigned to all buildable land. Such designations may allow nonresidential uses as well as residential uses. Such designations may be considered to be "residential plan designations" for the purposes of this division. The plan designations assigned to buildable land shall be specific so as to accommodate the varying housing types and densities identified in OAR 660-007-0030 through 660-007-0037.

OAR 660-007 also specifies the mix and density of new residential construction for cities within the Metro Urban Growth Boundary (UGB):

“Provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing or justify an alternative percentage based on changing circumstances” (OAR 660-007-0030 (1)).

OAR 660-007-0035 sets specific density targets for cities in the Metro UGB. Sherwood average density target is six dwelling units per net buildable acre.⁵

⁵ OAR 660-024-0010(6) defines Net Buildable Acres as follows: “Net Buildable Acre” consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.

Metro Urban Growth Management Functional Plan

The Metro Urban Growth Management Functional Plan describes the policies that guide development for cities within the Metro UGB to implement the goals in the Metro 2040 Plan.

Title 1: Housing Capacity

Title 1 of Metro's Urban Growth Management Functional Plan is intended to promote efficient land use within the Metro UGB by increasing the capacity to accommodate housing capacity. Each city is required to determine its housing capacity based on the minimum number of dwelling units allowed in each zoning district that allows residential development, and maintain this capacity.

Title 1 requires that a city adopt minimum residential development density standards by March 2011. If the jurisdiction did not adopt a minimum density by March 2011, the jurisdiction must adopt a minimum density that is at least 80% of the maximum density.

Title 1 provides measures to decrease development capacity in selected areas by transferring the capacity to other areas of the community. This may be approved as long as the community's overall capacity is not reduced.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 1 responsibilities.

Title 7: Housing Choice

Title 7 of Metro's Urban Growth Management Functional Plan is designed to ensure the production of affordable housing in the Metro UGB. Each city and county within the Metro region is encouraged to voluntarily adopt an affordable housing production goal.

Each jurisdiction within the Metro region is required to ensure that their comprehensive plans and implementing ordinances include strategies to:

- Ensure the production of a diverse range of housing types,
- Maintain the existing supply of affordable housing, increase opportunities for new affordable housing dispersed throughout their boundaries, and
- Increase opportunities for households of all income levels to live in affordable housing (3.07.730)

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 7 responsibilities.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 1 responsibilities.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 7 responsibilities.

Title 11: Planning for New Urban Areas

Title 11 of Metro's Urban Growth Management Functional Plan provides guidance on the conversion of land from rural to urban uses. Land brought into the Metro UGB is subject to the provisions of section 3.07.1130 of the Metro Code, which requires lands to be maintained at rural densities until the completion of a concept plan and annexation into the municipal boundary.

The concept plan requirements directly related to residential development are to prepare a plan that includes:

- (1) A mix and intensity of uses that make efficient use of public systems and facilities,
- (2) A range of housing for different types, tenure, and prices that addresses the housing needs of the governing city, and
- (3) Identify goals and strategies to meet the housing needs for the governing city in the expansion area.

Metro's *2016 Compliance Report* concludes that Sherwood is in compliance for the City's Title 11 responsibilities.

In addition, the City needs to comply with the Fair Housing Act, administered by the U.S. Department of Housing and Urban Service (HUD). Complying with this Act requires meeting the Affirmatively Furthering Fair Housing (AFFH) goal of the Fair Housing Act. The City must comply with these regulations to qualify for federal grant funds for housing.

2 Historical and Recent Development Trends

Analysis of historical development trends in Sherwood provides insights into how the local housing market functions. The intent of the analysis is to understand how local market dynamics may affect future housing—particularly the mix and density of housing by type. The housing mix and density by type are also key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands* Workbook:

1. Determine the time period for which the data must be gathered.
2. Identify types of housing to address (at a minimum, all needed housing types identified in ORS 197.303).
3. Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types.

The period used in the analysis of housing density and mix is 2000 to 2014, which includes both times of high housing production and times of low housing production. The reasons for choosing this period were:

- (1) The 2000 to 2014 period includes more than one economic cycle, with extreme highs and extreme lows in the housing market and
- (2) Data prior to 2005 was less easily available and obtaining and compiling data for 2000 to 2004 was difficult to acquire.

The housing needs analysis presents information about residential development by housing types. For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached:** single-family detached units and manufactured homes on lots and in mobile home parks.
- **Single-family attached:** all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.
- **Multifamily:** all attached structures other than single-family detached units, manufactured units, or single-family attached units. Multifamily units include duplexes, tri-plexes, quad-plexes, and structures with more than five units (such as apartments).

The reason for choosing these categories of housing type for the analysis is that they meet the requirements definition of needed housing types in ORS 197.303.⁶

In general, this report uses data from the 2009-2013 American Community Survey (ACS) for Sherwood, as described in Appendix B. Where information is available, we report information from the 2010 Decennial Census. This section summarizes historical and recent development trends, described in detail in Appendix B.

The primary geographies used throughout this report are:

- **Sherwood.** This generally refers to the Sherwood city limits. Census data for Sherwood uses this geography.
- **Sherwood Planning Area.** This is the Sherwood city limits and land that is within the Metro urban growth boundary but outside of the Sherwood city limits, primarily the Brookman Area.
- **Sherwood West.** The urban reserve to the west of Sherwood that may be brought into the Metro urban growth boundary when needed regionally and determined beneficial locally.

While this report presents the forecast for housing growth in Sherwood for the 2018-2038 period, it is based on analysis completed for the 2015 HNA.

Residential development trends⁷

Single-family detached housing makes up the largest share of Sherwood's housing stock (Figure B- 1). Currently:

- Single-family detached housing accounts for about 75% of Sherwood's housing stock.
- Single-family attached housing accounts for about 8% of Sherwood's housing stock.
- Multifamily housing accounts for about 18% of Sherwood's housing stock.

Three-quarters of Sherwood's housing is single-family detached housing.

⁶ The analysis of development in Sherwood attempts to separate single-family detached and single-family attached housing. However, the City's building permit system does not distinguish between these two types of housing. City staff manually identified single-family attached housing where there was a concentration of it developed (i.e., a development of townhouses). City staff were unable to identify small-scale single-family attached development that was scattered throughout the city.

⁷ Except where otherwise noted, data in this section is from the U.S. Decennial Census (for 2010 data) or the U.S. Census's American Community Survey for 2009-2013.

Over the 2000-2014 period, 69% of new housing permitted by Sherwood was single-family detached housing.

The majority of housing developed in Sherwood between 2000 and 2014 was single-family detached housing (Table B- 1 and [Figure B- 2](#)Figure B-2).⁸

- Over the 2000 to 2014 period, Sherwood issued permits for nearly 2,225 dwellings, with about 148 units permitted each year.
- Sixty-nine percent of new housing permitted in Sherwood between 2000 and 2014 was single-family. Roughly 1,721 single-family dwelling units were permitted over the 15-year period.
- Nine percent of the building permits issued in Sherwood over 2000 to 2014 were single-family attached (i.e., townhouses) and 23% were for multifamily housing.
- The majority of new housing in Sherwood was built between 2000 and 2006, before development decreased with the national housing crisis.
- The majority of new multifamily housing in Sherwood was permitted in 2006, 2009, and 2014. The majority of new single-family attached housing was permitted in 2004 and 2005.
- Between 2015 and 2017, Sherwood permitted about 125 new single-family detached units.

Almost three quarters of Sherwood’s residents own their homes (Figure B- 3, Figure B- 4, and Figure B- 5). Homeownership rates in Sherwood are above Washington County and Oregon’s averages.

- Homeownership rates declined slightly over the last decade. Roughly 79% of housing in Sherwood was owner-occupied in 2000 compared to about 75% in 2010.
- Most owner-occupied housing is single-family detached, about 89%.
- Renter-occupied housing is a mixture of multifamily (57%), single-family detached (35%), and single-family attached (9%).

Sherwood’s vacancy rate is lower than Multnomah, Washington, and Clackamas counties, and lower than the State average (Table B- 2 and Figure B- 6).

- In 2010, Sherwood’s vacancy rate (3.9%) was below that of Multnomah (6.2%), Washington (5.4%), and Clackamas (7.1%) counties, and lower than Oregon’s (9.3%).
- The vacancy rates for apartments in the Tigard/Tualatin/Sherwood area varied from a high of 5.8% in Spring 2010 to a low of 2.6% in Fall 2013

⁸ Building permit data is from the City of Sherwood Building Permit Database.

and were within 1% of the vacancy rate for the Portland/Vancouver metro area.⁹

Sherwood’s residential development between 2000 and 2014 averaged 8.2 dwelling units per net acre, above the State’s requirement in OAR 660-007 for six dwelling units per net acre (Table B-3~~Table B-3~~ Table B-4).¹⁰

- Average density in Sherwood was 8.2 dwelling units per net acre over the 2000 to 2014 period.
- Density was lowest in the Very Low Density Residential Zone (2.9 dwelling units per net acre) and Medium Density Residential Low Zone (6.1 dwelling units per net acre).
- Density was highest in Office Commercial (24.4 dwelling units per net acre) and High Density Residential (19.1 dwelling units per net acre).

⁹ Multifamily NW Apartment Reports, Spring 2010 – Fall 2014.

¹⁰ City of Sherwood Building Permit Database.

3 Housing Need in Sherwood

This chapter presents the analysis of housing needs in Sherwood over the 2018 to 2038 period. Estimates of needed units by structure type and by density range follows.

Chapter 1 described the framework for conducting a housing "needs" analysis. The specific steps in conducting a housing needs analysis are:

1. Project number of new housing units needed in the next 20 years.
2. Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type mix.
3. Describe the demographic characteristics of the population and, if possible, housing trends that relate to demand for different types of housing.
4. Determine the types of housing that are likely to be affordable to the projected households based on household income.
5. Estimate the number of additional needed units by structure type.
6. Determine the needed density ranges for each plan designation and the average needed net density for all structure types.

This chapter presents information for these steps for Sherwood's housing needs analysis.

PROJECTION OF NEW HOUSING UNITS NEEDED IN THE NEXT 20 YEARS

The housing needs analysis in this report is based on the MetroScope forecast of household growth in Sherwood over the next 25 years.

As required by OAR 660-024, the housing needs analysis in this report is based on a coordinated forecast from Metro (the Metro 2040 TAZ Forecast by Households, January 2016), which is a necessary prerequisite to estimate housing needs. The projection of household growth includes areas currently within the city limits, as well as areas currently outside the city limits that the City expects will be annexed for residential uses (most notably the Brookman area). In 2017, a portion of the Brookman area annexed into the city limits. We call these areas combined the “Sherwood planning area.”

While the housing needs analysis presents information for Sherwood West, this area is currently outside of the regional UGB. Housing need in Sherwood West is not considered part of Sherwood’s overall housing need for the purposes of this study. The information in this report, however, can inform the ongoing Concept Planning for Sherwood West.

Table B-6 in Appendix B presents Metro’s forecast for housing in Sherwood for the 2010 to 2040 period. Table 1 presents ECONorthwest’s extrapolation of Metro’s forecast for Sherwood to the 2018 to 2038 period. Table 1 shows that **the Sherwood planning area is expected to add 1,653 new households between 2018 and 2038. Regional models and informed projections suggest nearly 700 (697) new households will be accommodated inside the existing city limits. Approximately 956 new households are expected to be accommodated outside the current city limits in the Brookman Area.**

The housing needs analysis focuses on housing growth in Sherwood over the 2018 to 2038 period.

The forecast shows that Sherwood will add 1,653 new households over the 20-year period.

The forecast shows growth of 4,157 new dwelling units in Sherwood West. While Metro’s forecast assumes that growth will take place over the next 20-years, it may occur over a 50-year period.

Table 1. Extrapolated Metro forecast for household growth, Sherwood planning area, 2018 to 2038

Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2018	6,883	282	7,165	293
2038	7,580	1,238	8,818	4,450
Change 2015 to 2040				
Households	697	956	1,653	4,157
Percent	10%	339%	23%	1419%
AAGR	0.5%	7.7%	1.0%	14.6%

Source: Metro 2040 TAZ Forecast by Households, January 2016
 Extrapolation from the 2015 forecast (the base year in the Metro forecast) to 2018 (not shown in Metro’s forecast) by ECONorthwest

DEMOGRAPHIC AND SOCIOECONOMIC FACTORS AFFECTING HOUSING CHOICE

Demographic trends are important to a thorough understanding of the dynamics of the Sherwood housing market. Sherwood exists in a regional economy; trends in the region impact the local housing market. This section documents national, state, and regional demographic, socioeconomic, and other trends relevant to Sherwood.

The Factors that Affect Housing Choice

The factors that have the largest impact on a household's housing choice are: age of the householder, household size and composition, and income.

Analysts typically describe housing demand as the preferences for different types of housing (i.e., single-family detached or apartment), and the ability to pay for that housing (the ability to exercise those preferences in a housing market by purchasing or renting housing—in other words, income or wealth).

Metro, the agency responsible for regional planning within the Portland metropolitan UGB, uses a decision support tool called Metroscope to model changes in measures of economic, demographic, land use, and transportation activity. Metroscope includes a residential location model, which projects the locations of future households based on factors such as land availability and capacity, cost of development, changes in demographics, changes in employment, and changes in transportation and transit infrastructure. The housing needs analysis in this report is based on the Metroscope forecast of household growth in Sherwood over the next 25 years.

Many demographic and socioeconomic variables affect housing choice. However, the literature about housing markets finds that age of the householder, size of the household, and income are most strongly correlated with housing choice.¹¹

¹¹ The research in this chapter is based on numerous articles and sources of information about housing, including:

The Case for Multi-family Housing. Urban Land Institute. 2003

E. Zietz. *Multi-family Housing: A Review of Theory and Evidence*. Journal of Real Estate Research, Volume 25, Number 2. 2003.

C. Rombouts. *Changing Demographics of Homebuyers and Renters*. Multi-family Trends. Winter 2004.

J. McIlwain. *Housing in America: The New Decade*. Urban Land Institute. 2010.

D. Myers and S. Ryu. *Aging Baby Boomers and the Generational Housing Bubble*. Journal of the American Planning Association. Winter 2008.

M. Riche. *The Implications of Changing U.S. Demographics for Housing Choice and Location in Cities*. The Brookings Institution Center on Urban and Metropolitan Policy. March 2001.

- **Age of householder** is the age of the person identified (in the Census) as the head of household. Households make different housing choices at different stages of life.
- **Size of household** is the number of people living in the household. Younger and older people are more likely to live in single-person households. People in their middle years are more likely to live in multiple person households (often with children).
- **Income** is the household income. Income is probably the most important determinant of housing choice. Income is strongly related to the type of housing a household chooses (e.g., single-family detached, duplex, or a building with more than five units) and to household tenure (e.g., rent or own).

This section focuses on these factors, presenting data that suggests how changes to these factors may affect housing need in Sherwood over the next 20 years.

National housing trends

Appendix B presents a full review of national housing trends. This brief summary builds on previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies of Harvard University. The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing is closely tied to jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the number of underwater homeowners, delinquent loans, and vacancies remains high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

L. Lachman and D. Brett. *Generation Y: America's New Housing Wave*. Urban Land Institute. 2010.

National housing market trends include:¹²

- **Post-recession recovery slows down.** Despite strong growth in the housing market in 2012 and the first half of 2013, by the first quarter of 2014, housing starts and existing home sales were both down by 3% from the same time a year before, while existing home sales were down 7% from the year before. Increases in mortgage interest rates and meager job growth contributed to the stall in the housing market.
- **Continued declines in homeownership.** After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at about 65%. The Urban Land Institute projects that homeownership will continue to decline to somewhere in the low 60% range.
- **Housing affordability.** In 2012, more than one-third of American households spent more than 30% of income on housing. Low-income households face an especially dire hurdle to afford housing. Among those earning less than \$15,000, more than 80% paid over 30% of their income and almost 70% of households paid more than half of their income. For households earning \$15,000 to \$29,000, more than 60% were cost burdened, with about 30% paying more than half of their income on housing.
- **Changes in housing characteristics.** National trends show that the size of single-family and multifamily units, and the number of household amenities (e.g., fireplace or two or more bathrooms) has increased since the early 1990s. Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 square feet to 2,384 square feet and 18% in the western region from 1,985 square feet to 2,359 square feet. Moreover, the percentage of units smaller than 1,400 square feet nationally decreased from 15% in 1999 to 8% in 2013. The percentage of units greater than 3,000 square feet increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 2009 and 2013, the percentage of lots less than 7,000 square feet increased from 26% of lots to 30% of lots. Similarly, in the western region, the share of lots less than 7,000 square feet increased from 43% to 48% of lots.

In 2012, more than one-third of households across the US had housing affordability problems, with the lowest income households having the most difficulty finding affordable housing.

Since 1990, the average size of new dwelling units increased both for single-family and multifamily housing. At the same time, the average lot size for new housing decreased.

¹² These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "The State of the Nation's Housing 2013," (2) Urban Land Institute, "2011 Emerging Trends in Real Estate," and (3) the U.S. Census.

Future housing preferences will be affected by demographic changes, such as the aging of the Baby Boomers, growing housing demand from Millennials, and growth of foreign-born immigrants.

- **Long-term growth and housing demand.** The Joint Center for Housing Studies forecasts that demand for new homes could total as many as 13.2 million units nationally between 2015 and 2025. Much of the demand will come from Baby Boomers, Millennials,¹³ and immigrants.
- **Changes in housing preference.** Housing preference will be affected by changes in demographics, most notably the aging of the Baby Boomers, housing demand from the Millennials, and growth of foreign-born immigrants. Baby Boomers' housing choices will affect housing preference and homeownership, with some boomers likely to stay in their home as long as they are able and some preferring other housing products, such as multifamily housing or age-restricted housing developments.

In the near-term, Millennials and new immigrants may increase demand for rental units. The long-term housing preference of Millennials and new immigrants is uncertain. They may have different housing preferences as a result of the current housing market turmoil and may prefer smaller, owner-occupied units or rental units. On the other hand, their housing preferences may be similar to the Baby Boomers, with a preference for larger units with more amenities. Recent surveys about housing preference suggest that Millennials want affordable single-family homes in areas that offer transportation alternatives to cars, such as suburbs or small cities with walkable neighborhoods.¹⁴

¹³ Millennials are, broadly speaking, the children of Baby Boomers, born from the early 1980's through the early 2000's.

¹⁴ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014. "Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders Show, accessed January, 2015, <http://www.buildersshow.com/Search/isesProgram.aspx?id=17889&fromGSA=1>. "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America, accessed January 2015, http://t4america.org/wp-content/uploads/2014/04/Press-Release_Millennials-Survey-Results-FINAL-with-embargo.pdf.

State Trends

Oregon's 2011-2015 Consolidated Plan includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.¹⁵ The plan concludes that "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, as compared to the nation.
- Since 2005, is experiencing higher foreclosure rates compared with the previous two decades.
- Losing federal subsidies on about 8% of federally-subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.
- Increasingly older, more diverse, and has less affluent households.¹⁶

Regional and Local Demographic Trends

Sherwood has a growing population (Table B- 5). Sherwood's growing population will drive future demand for Sherwood over the planning period.

- Sherwood grew by more than 15,000 people, a 501% increase in population, at an average annual rate of 8.1% over the 1990 to 2013 period.¹⁷
- Sherwood grew at a faster rate than the nation as a whole (1.0% per year), Oregon (1.4% per year), and the Portland Region (1.6%) over this period.
- Metro forecasts that the number of households in the Sherwood Planning Area will grow by about 1,653 households over the 2018-2038 period, at an average annual growth rate of 0.8%.
- Metro forecasts that Sherwood West, an area that is adjacent to Sherwood but currently outside of the Metro Urban Growth Boundary, will grow by 4,157 households. Growth in Sherwood West will not begin until the area is included in the Metro UGB and annexed into Sherwood. While Metro's forecast assumes that Sherwood West may be fully

¹⁵ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

¹⁶ State of Oregon *Consolidated Plan 2011 to 2015*.
http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

¹⁷ 2013 Population Estimates in Oregon come from Portland State University's Population Research Center.

developed by 2040, it may take longer, perhaps until 2065, for Sherwood West to fully develop.

- Metro’s forecast of household growth considers residential capacity within Sherwood’s city limits to accommodate growth. Much of Sherwood’s future growth depends on bringing new land into the city limits, including the Brookman Area and Sherwood West.

The growth of younger and diversified households will result in increased demand for a wider variety of affordable housing appropriate for families with children, such as small single-family housing, townhouses, duplexes, and multifamily housing.

Sherwood’s population is younger than the state, on average (Table B- 7, Table B- 8, and Figure B- 8). Sherwood has a larger share of people younger than 30 years of age, and a relatively small share of people over 50 years. If Sherwood continues to attract young residents, then it will continue to have demand for housing for families, especially housing affordable to younger families with moderate incomes. Recent studies suggest that growth in younger residents (e.g., Millennials) will result in increased demand for both affordable single-family detached housing, as well as increased demand for affordable townhouses and multifamily housing. Growth in this population will result in growth in demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.

- In 2010, the median age in Sherwood was 34.3 years old, compared to the State median of 38.4.
- A higher percentage of Sherwood’s population is younger than 30 years (44%) compared to the state as a whole (39%). Furthermore, a smaller share of Sherwood’s population is younger than 50 years (21%), compared to the state as a whole (34%).

The aging of the population will result in increased demand for smaller single-family housing, multifamily housing, and housing for seniors.

Sherwood’s population is growing older (Figure B- 9). Although Sherwood has a smaller share of people over 50 years old than the State average, Sherwood’s population is growing older, consistent with State and national trends. Demand for housing for retirees will grow over the planning period, as the Baby Boomers continue to age and retire. However, Sherwood’s demand for housing for seniors may grow at a slower rate than across the State.

Growth of seniors will have the biggest impacts on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. These households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes), as their health fails.

- The fastest-growing age group over the 2000 to 2010 period in Sherwood was people aged 45 years and older, with the most growth in the number of people aged 45 to 64.
- In Sherwood, people aged 45 to 64 grew by 102%, from 1,936 to 3,917 people between 2000 and 2010.

- By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The percent of total population in each age group younger than 60 years old will decrease. The age distribution in the Portland Region will change in a similar pattern.¹⁸
- Given the growth of people 45 years and older in Sherwood and the forecast for growth of people 60 years and older between 2018-2038 in Washington County and the Portland Region, it is reasonable to expect that Sherwood will have growth in the senior population.

Sherwood is becoming more ethnically diverse (Figure B- 10). Growth in Hispanic and Latino population will affect Sherwood’s housing needs in a variety of ways. Growth in first and, to a lesser extent, second and third-generation Hispanic and Latino immigrants tend to increase demand for larger dwelling units to accommodate the on average larger household sizes for these households. Households for Hispanic and Latino immigrants are more likely to include multiple generations, requiring more space than smaller household sizes. As Hispanic and Latino households integrate over generations, household size typically decreases and housing needs become similar to housing needs for all households.

Growth in Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable.

- Sherwood’s Hispanic and Latino population grew by 99% from 2000 to the 2009-2013 period, from 557 to 1,107 people, increasing its share of the population from 4.7% to 6.0%.
- Nonetheless, Sherwood’s percentage of Hispanic or Latino population remains below that of the state as a whole. In the 2009-2013 period, Hispanic and Latino population accounted for 12% of the state’s population, compared to Sherwood’s average of 6.0%.

Sherwood’s household size is larger than State averages (Table B- 9). The larger household size is indicative of a larger share of households with children or multigenerational households.

- Sherwood’s average household size was 2.89 persons per household, compared with the regional average of 2.54 persons per household, and the state average of 2.49 persons per household.
- The size of households in Sherwood grew from 2000 to the 2009-2013 period (2.77 to 2.89). Over the same period, the average household size

¹⁸ Demographic forecast for Washington County by the Oregon Office of Economic Analysis.

in the Portland Region rose slightly from 2.53 to 2.54, while the State's average fell from 2.51 to 2.49.

Sherwood has a relatively high share of households with children (Figure B-11). Households with children are more likely to prefer single-family detached housing, if it is relatively affordable.

- Sherwood has a larger share of households with children (47%) than the State average (27%), the Portland Region (29%), or Washington County (33%).
- In the 2009-2013 period, Sherwood had a smaller share of single-person households (19%) than the regional average (29%).
- In the 2009-2013 period, Sherwood had a smaller share of non-family households (23%) than the regional average (38%).

Sherwood is part of a complex, interconnected regional economy (Figure B- 12, Table B- 11, and Table B- 12). Most people working at businesses in Sherwood do not live in Sherwood. Demand for housing by workers at businesses in Sherwood may change with fluctuations in fuel and commuting costs, as well as the capacity of highways to accommodate commuting.¹⁹

- Commuting is typical throughout the region: 91% of Sherwood's working residents commuted outside the city, and about 85% of those who work in the city live outside the city itself.

Summary of the Implications of Demographic and Socioeconomic Trends on Housing Choice

The purpose of the analysis thus far has been to provide background on the kinds of factors that influence housing choice, and in doing so, to convey why the number and interrelationships among those factors ensure that generalizations about housing choice are difficult and prone to inaccuracies.

There is no question that age affects housing type and tenure. Mobility is substantially higher for people aged 20 to 34. People in that age group will also have, on average, less income than people who are older. They are less likely to have children. All of these factors mean that younger households are much more likely to be renters, and renters are more likely to be in multifamily housing.

The data illustrate what more detailed research has shown and what most people understand intuitively: life cycle and housing choice interact in ways that are predictable in the aggregate; age of the household head is correlated with household size and income; household size and age of household head affect housing preferences; income affects the ability of a household to afford a

¹⁹ US Census Bureau, LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

preferred housing type. The connection between socioeconomic and demographic factors and housing choice is often described informally by giving names to households with certain combinations of characteristics: the "traditional family," the "never marrieds," the "dinks" (dual-income, no kids), the "empty nesters."²⁰ Thus, simply looking at the long wave of demographic trends can provide good information for estimating future housing demand.

Thus, one is ultimately left with the need to make a qualitative assessment of the future housing market. The following is a discussion of how demographic and housing trends are likely to affect housing Sherwood over the next 20 years:

- **Growth in housing will be driven by growth in population.** Between 2000 and the 2009-2013 period, the number of housing units in Sherwood increased by 47% from about 4,500 to 6,600 (Figure B- 4), while its population grew by roughly 55% from 11,963 to 18,575 from 2000 to 2013 (Table B- 5).²¹
- **On average, future housing will look a lot like past housing.** That is the assumption that underlies any trend forecast, and one that allows some quantification of the composition of demand for new housing. As a first approximation, the next three to five years of residential growth will look a lot like the last three to five years.
- **If the future differs from the past, it is likely to move in the direction (on average) of smaller units and more diverse housing types.** Most of the evidence suggests that the bulk of the change will be in the direction of smaller average house and lot sizes for single-family housing. Key demographic trends that will affect Sherwood's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, (3) growth of family households, and (4) continued growth in Hispanic and Latino population.
 - *The Baby Boomer's population is continuing to age.* By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The changes that affect Sherwood's housing demand as the population ages are that household sizes decrease and homeownership rates decrease.
 - *Millennials will continue to age.* By 2035, Millennials will be roughly between about 35 years old to 55 years old. As they age, generally speaking, their household sizes will increase and homeownership rates will peak by about age 55. Between 2018 and 2038,

²⁰ See *Planning for Residential Growth: A Workbook for Oregon's Urban Areas* (June 1997).

²¹ 2013 Population Estimates come from come from the Portland State University Population Research Center's Annual Population Estimates.

Millennials will be a key driver in demand for housing for families with children.

- *Growth of households with children.* Sherwood has an unusually high percentage of households with children, compared to the regional averages. If Sherwood continues to attract families with children, demand for housing for families, such as affordable single-family detached or townhouses, will increase.
- *Hispanic and Latino population will continue to grow.* The U.S. Census projects that by about 2040, Hispanic and Latino population will account for more than one-quarter of the nation's population. The share of Hispanic and Latino population in the western U.S. is likely to be higher. Growth in Hispanic and Latino population will drive demand for housing for families with children. Given the lower income for Hispanic and Latino households,²² growth in this group will also drive demand for affordable housing, both for ownership and renters.

In summary, an aging population, increasing housing costs, housing affordability concerns for Millennials and the Hispanic and Latino populations, and other variables are factors that support the conclusion of smaller and less expensive units and a broader array of housing choices.

Millennials and immigrants will drive demand for affordable housing types, including demand for small, affordable single-family units (many of which may be ownership units) and for affordable multifamily units (many of which may be rental units).

- **No amount of analysis is likely to make the distant future any more certain: the purpose of the housing forecasting in this study is to get an approximate idea about the future so policy choices can be made today.** Economic forecasters regard any economic forecast more than three (or at most five) years out as highly speculative. At one year, one is protected from being disastrously wrong by the sheer inertia of the economic machine. But a variety of factors or events could cause growth forecasts to be substantially different.

²² The following article describes household income trends for Hispanic and Latino families, including differences in income levels for first, second, and third generation households. In short, Hispanic and Latino households have lower median income than the national averages. First and second generation Hispanic and Latino households have median incomes below the average for all Hispanic and Latino households.

Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012

REGIONAL AND LOCAL TRENDS IN HOUSING COSTS AND AFFORDABILITY

Sherwood's income is higher than state averages (Figure B- 19). Income is a key determinant of housing affordability. Since 2000, Sherwood's income has decreased (in inflation-adjusted dollars), consistent with state trends.

- Sherwood's median household income (\$78,400) was about 55% higher than the state median (\$50,229) in the 2009-2013 period.
- Inflation-adjusted income for households in Sherwood decreased by about 10% from about \$87,500 in 2000 to \$78,400 (in 2013 dollars) from 2000 to the 2009-2013 period. This is consistent with state and regional trends.
- Poverty rates increased in Sherwood from 2.7% of the population below poverty in 2000 to 7.6% in 2010. The increase is consistent with state and regional trends.
- Sherwood had a smaller share of population below the federal poverty line in the 2009-2013 period (7.6%) than the state average (16.2 %).

Homeownership costs have increased in Sherwood (Figure B- 13, Figure B- 14, Figure B- 15 and Figure B- 16). Sales prices for single-family housing increased over the period from 2004 to 2014, consistent with national trends. While housing prices peaked in 2007, before falling during the recession, sales prices grew by about 30% from 2004 to 2014. Sales prices have continue to increase through 2017 and may be above the 2007 peak.

The increases in housing costs have made Sherwood less affordable than most other communities on the southwest side of Portland.

- Median sales prices for homes in Sherwood increased by about 30% between 2004 and 2014, from about \$245,000 to \$318,000.²³
- As of January 2015, median sales prices in Sherwood were about \$316,500, higher than in Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$237,300). Median sales prices were higher in Sherwood than in other Portland westside communities such as Tigard, Tualatin, and Beaverton but lower than Wilsonville or West Linn.
- Prices per square foot rose in Sherwood from \$130 per square foot in October 2004 about \$170 dollars in October 2014, comparable to the price in Washington County and the Portland Region (both about \$170). The cost of housing per square foot was comparable in Sherwood to other

Housing costs in Sherwood increased by 30% since 2000.

Sales prices in Sherwood are higher than the regional averages.

²³ Recent median home sale price, including price per square foot, comes from Zillow Real Estate Research.

cities on the southwest side of Portland, such as Tigard, Tualatin, Beaverton, and Wilsonville.

- The sales price data suggest that, overall, owner-occupied housing being produced in Sherwood was more expensive because it is larger than housing built in other cities in the southwestern Portland area.
- The ratio of home value to income increased by 32% from 2000 to 2009-2013. In 2000, the median home value was 2.9 times the median household income. By 2009-2013, the median home value was 3.8 times the median household income. In comparison, in 2009-2013, the typical value of an owner-occupied house in Washington County was 4.4 times the median income and the state average was 4.74 times the median income.

Rental costs are about 25% higher than the regional average.

Rental costs are higher in Sherwood than the average in Washington County, with a slightly lower rental cost on a cost per square foot basis (Table B- 14, and Figure B- 17 and Figure B- 18).

- The median contract rent in Sherwood in the 2009-2013 period was \$1,064, compared to Washington County’s average of \$852.
- Average rent in the Tigard/Tualatin/Sherwood area submarket was \$1.13 per square foot in Fall 2014, lower than the regional average of \$1.22 per square foot. Between Spring 2010 and Spring 2013, average rent in Tigard/Tualatin/Sherwood area increased by 38%, consistent with the regional increase of 36%.

More than one-third of Sherwood’s households have housing affordability problems, similar to regional averages.

More than one-third of Sherwood’s households have housing affordability problems (Figure B- 20 and Figure B- 21).

- Thirty-eight percent of Sherwood’s households were cost burdened (i.e., paid more than 30% of their income on rent or homeownership costs) in the 2009-2013 period.²⁴ This is consistent with the state averages.
- Roughly 40% of Sherwood’s renter households were cost burdened in the 2009-2013 period. About one-fifth of renters were severely cost burdened (i.e., pay more than 50% of their income on rent).
- About 35% of Sherwood’s homeowners were cost burdened in the 2009-2013 period. Only about 1% of homeowners were severely cost burdened (i.e., paid more than 50% of their income on homeownership costs).

²⁴A household is considered cost burdened if they pay more than 30% of their gross income on housing costs. For renters, housing costs include the following: monthly rent, utilities (electricity, gas, and water and sewer), and fuels (wood, oil, etc.). For homeowners, housing costs include the following: mortgage payments, real estate taxes, insurance, mobile home costs, condominium fees, utilities, and fuels.

- When considering housing and transportation costs combined, the average household in Sherwood spends 54% of its income on housing costs and transportation costs. Metro considered a household that spends 45% or more of its income on transportation and housing as paying more they can afford. For context, the average households in Tualatin, Wilsonville, and Tigard pay 50% to 52% of their income for housing and transportation costs.

Future housing affordability will depend on the relationship between income and housing price. Households in Sherwood generally have higher than average incomes and housing prices are higher than average. In addition, Sherwood is at the edge of the Metro UGB, making transportation costs higher for households in Sherwood, compared to households who live in more central parts of the region. Determining whether housing in Sherwood will be more or less affordable is difficult to answer when based on historical data. The key questions are whether housing prices will continue to outpace income growth and whether transportation costs will continue to grow in the future.

FORECAST OF HOUSING BY TYPE AND DENSITY OF HOUSING

Table 2 shows the forecast of needed housing units in Sherwood based on the total estimate of housing need shown in Table 1. The forecast in Table 2 assumes: that the forecast for new housing will be: 50% single-family detached, 10% single-family attached, and 40% multifamily. This forecast is consistent with the requirements of OAR 660-007-0035.

The forecast shows increased demand for lower-cost housing types such as single-family attached and multifamily units, which meets the needs resulting in the changing demographics in Sherwood and the Portland region. The changes in demographics are the aging of the Baby Boomers, growth in Millennial households, and increases in ethnic diversity. The previous section described these trends and the implications for housing need in Sherwood.

Table 2. Forecast of needed housing units by mix, Sherwood planning area, 2018-2038

Housing Type	New Dwelling Units (DU)	Percent
Single-family detached	827	50%
Single-family attached	165	10%
Multifamily	661	40%
Total	1,653	

Source: ECONorthwest

The assumed housing mix meets the requirement of OAR 660-007-0030 to “designate sufficient buildable land to provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing.”

The needed density in Sherwood is consistent with the densities achieved in residential zones Sherwood over the 2000-2014 period (Table B-4). These densities are:

- Very Low Density Residential (VLDR): 2.9 dwelling units per net acre
- Low Density Residential (LDR): 6.5 dwelling units per net acre²⁵
- Medium Density Residential – Low (MDRL): 6.1 dwelling units per net acre

²⁵ The historical density achieved in LDR, 6.5 dwelling units per acre, is higher than the maximum allowable density in LDR, 5 dwelling units per net acre. This fact can be explained in large part by the fact that 60% of new development in LDR was part of a Planned Unit Development (PUD), which averaged 7.6 dwelling units per acre.

- Medium Density Residential – High (MDRH): 7.7 dwelling units per net acre
- High Density Residential (HDR): 19.1 dwelling units per net acre

These densities, when applied to Sherwood’s supply of buildable land in the capacity analysis (Table 6) results in an overall density of 7.3 dwelling units per net acre. This housing density meets the requirements of OAR 660-007-0035 to “provide for an overall density of six or more dwelling units per net buildable acre.”

Table 3 allocates the needed housing units to Sherwood’s zones. The allocation is based on allowed uses in Sherwood’s zoning code, historical development trends, and Sherwood’s inventory of vacant buildable residential land.

Table 3. Allocation of needed housing units to zones, Sherwood planning area, 2018-2038

	Zone					Total
	Very Low Density Residential	Low Density Residential	Medium Density Residential-Low	Medium Density Residential-High	High Density Residential	
Dwelling Units						
Single-family detached	90	174	430	116	17	827
Single-family attached	-	-	-	99	66	165
Multifamily	-	-	83	229	349	661
Total	90	174	513	444	432	1,653
Percent of Units						
Single-family detached	5%	11%	26%	7%	1%	50%
Single-family attached	0%	0%	0%	6%	4%	10%
Multifamily	0%	0%	5%	14%	21%	40%
Total	5%	11%	31%	27%	26%	100%

Source: ECONorthwest

Needed housing by income level

Step four of the housing needs analysis is to develop an estimate of need for housing by income and housing type. This requires an estimate of the income distribution of current and future households in the community. The estimates presented in this section are based on (1) secondary data from the Census, and (2) analysis by ECONorthwest.

The analysis in Table 4 based on American Community Survey data about income levels in Sherwood, using income information shown in Table B- 17. Income is categorized into market segments consistent with HUD income level categories, using the Portland Region’s 2014 Median Family Income (MFI) of \$69,400. Table 4 is based on current household income distribution, assuming approximately that the same percentage of households will be in each market segment in the future.

Based on Sherwood’s current household income distribution, Table 4 shows that about 31% of households in Sherwood have incomes below 80% of the MFI. These households will need a range of housing, such as lower-cost single-family detached housing, townhouses, manufactured homes, or multifamily housing. These households will predominantly be renters. Sixty-nine percent of households have incomes above 80% of MFI. These households will be a mix of owners and renters. Their housing needs will include single-family detached, townhouses, and multifamily housing.

Growth in lower-income demographic groups, such as the Millennials, or in Baby Boomers who want to downsize their homes, may increase demand for smaller single-family detached houses, townhouses, and multifamily housing.

Table 4. Estimate of needed new dwelling units by income level, Sherwood, 2018-2038

Market Segment by Income	Income Range	Number of households	Percent of Households	Attainable		
				Owner-occupied	Renter-occupied	
High (120% or more of MFI)	\$83,280 or more	693	42%	All housing types; higher prices	All housing types; higher	
Upper Middle (80%-120% of MFI)	\$55,520 to \$83,280	446	27%	All housing types; lower values	All housing types; lower values	
Lower Middle (50%-80% of MFI)	\$34,700 to \$55,520	222	13%	Single-family attached; condominiums; duplexes; manufactured on lots	Single-family attached; detached; manufactured on lots;	
Lower (30%-50% of less of MFI)	\$20,820 to \$34,700	112	7%	Manufactured in parks	Apartments; manufactured in parks; duplexes	
Very Low (Less than 30% of MFI)	Less than \$20,820	180	11%	None	Apartments; new and used government assisted housing	

Source: ECONorthwest
 MFI is Median Family Income

Need for government assisted and manufactured housing

ORS 197.303 requires cities to plan for government-assisted housing, manufactured housing on lots, and manufactured housing in parks.

- **Government-assisted housing.** Government subsidies can apply to all housing types (e.g., single family detached, apartments, etc.) Sherwood allows development of government-assisted housing in all Residential zones, with the same development standards for market-rate housing. This analysis assumes that Sherwood will continue to allow government-assisted housing in all its Residential zones. Because government-assisted housing is similar in character to other housing (with the exception of the subsidies), it is not necessary to develop separate forecasts for government-assisted housing.
- **Manufactured housing on lots.** Sherwood allows manufactured housing in all residential zones as a permitted use. As manufactured homes are allowed as a permitted use in all zones, it is not necessary to develop separate forecasts for manufactured housing on lots.
- **Manufactured housing in parks** (Table B- 13). OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high-density residential development. According to the Oregon Housing and Community Services' Manufactured Dwelling Park Directory,²⁶ Sherwood has four manufactured dwelling parks:
 - Carriage Park Estates with 58 spaces, all occupied
 - Crown Court with 14 spaces, except for one vacancy
 - Orland Villa with 24 spaces, all occupied
 - Smith Farm Estates with 90 spaces, all occupied

ORS 197.480(2) requires Sherwood to project need for mobile home or manufactured dwelling parks based on: (1) population projections, (2) household income levels, (3) housing market trends, and (4) an inventory of manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential.

- Table 1 shows that the Sherwood planning area will grow by 1,653 dwelling units over the 2018 to 2038 period.
- Analysis of housing affordability (in Table 4) shows that about 18% of Sherwood's new households will be low income, earning 50% or less

²⁶ Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>

of the County's median family income. One type of housing affordable to these households is manufactured housing.

- Manufactured housing in parks accounts for about 2.4% (258 dwelling units) of Sherwood's current housing stock, according to 2009-2013 Census data.
- National, state, and regional trends during the 2000 to 2010 period showed that manufactured housing parks were closing, rather than being created. For example, between 2003 and 2010, Oregon had a statewide decrease of 25% in the number of manufactured home parks. The trend of closing of manufactured housing parks slowed during the housing recession but is likely to increase as housing prices and land prices increase.
- The longer-term trend for closing manufactured home parks is the result of manufactured home park landowners selling or redeveloping their land for uses with higher rates of return, rather than lack of demand for spaces in manufactured home parks. Manufactured home parks contribute to the supply of lower-cost affordable housing options, especially for affordable home ownership. The trend in closure of manufactured home parks increases the shortage of manufactured home park spaces. Without some form of public investment to encourage continued operation of existing manufactured home parks and construction of new manufactured home parks, this shortage will continue.

Table 4 shows that the households most likely to live in manufactured homes in parks are those with incomes between \$20,820 and \$34,700 (30 to 50% of median family income). Assuming that about 1.5% to 2.5% of Sherwood's new households (1,653 new dwellings) choose to live in manufactured housing parks, the City may need 25 to 41 new manufactured home spaces. At an average of 8 dwelling units per net acre, this results in demand for 3.1 to 5.2 acres of land.

The City allows development of manufactured housing parks in MDRL zones, where the City has 66 vacant suitable buildable acres of land. Development of a new manufactured home park in Sherwood over the planning period seems unlikely. The land needed for development of a manufactured housing park is part of the forecast in Table 2.

4 Residential Land Sufficiency

This chapter presents an evaluation of the sufficiency of vacant residential land in Sherwood to accommodate expected residential growth over the 2018 to 2038 period. This chapter includes an estimate of residential development capacity (measured in new dwelling units) and an estimate of Sherwood's ability to accommodate needed new housing units for the 2018 to 2038 period. The chapter also includes conclusions and recommendations based on the results of the housing needs analysis.

RESIDENTIAL BUILDABLE LAND

Table 5 presents the City's inventory of buildable land. The buildable lands inventory is based on City of Sherwood and Metro GIS data. Appendix A presents a complete description of the methodology used to develop the buildable lands inventory. The key assumptions in the inventory are:

- **Vacant land** was defined as land that is fully vacant (as determined by Metro's Regional Land Information System (RLIS) GIS data and local data), or tax lots that are at least 95% vacant, or tax lots that have less than 2,000 square feet developed, with development covering less than 10% of the entire lot.
- **Unbuildable land** was removed from the inventory, including land with: public tax exemptions (i.e., land owned by the city or state), schools, churches, and other tax-exempt social organizations, private streets, rail properties, parks, and tax lots that do not meet the City's requirements for infill development.
- **Environmental resources and constraints** were deducted from the inventory of vacant land, including floodways and slopes over 25%.
- **Future rights-of-way** were accounted for based on lot sizes, with tax lots larger than one acre assumed to have 18.5% of land set aside for future rights-of-way.

Table 5 shows that Sherwood has 175 net acres of suitable buildable residential land. Fifty-five percent of Sherwood's vacant land (96 acres) is within the city limits and 45% (79 acres) is within the Brookman Area or other unincorporated areas within the current Urban Growth Boundary.

Table 5. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014

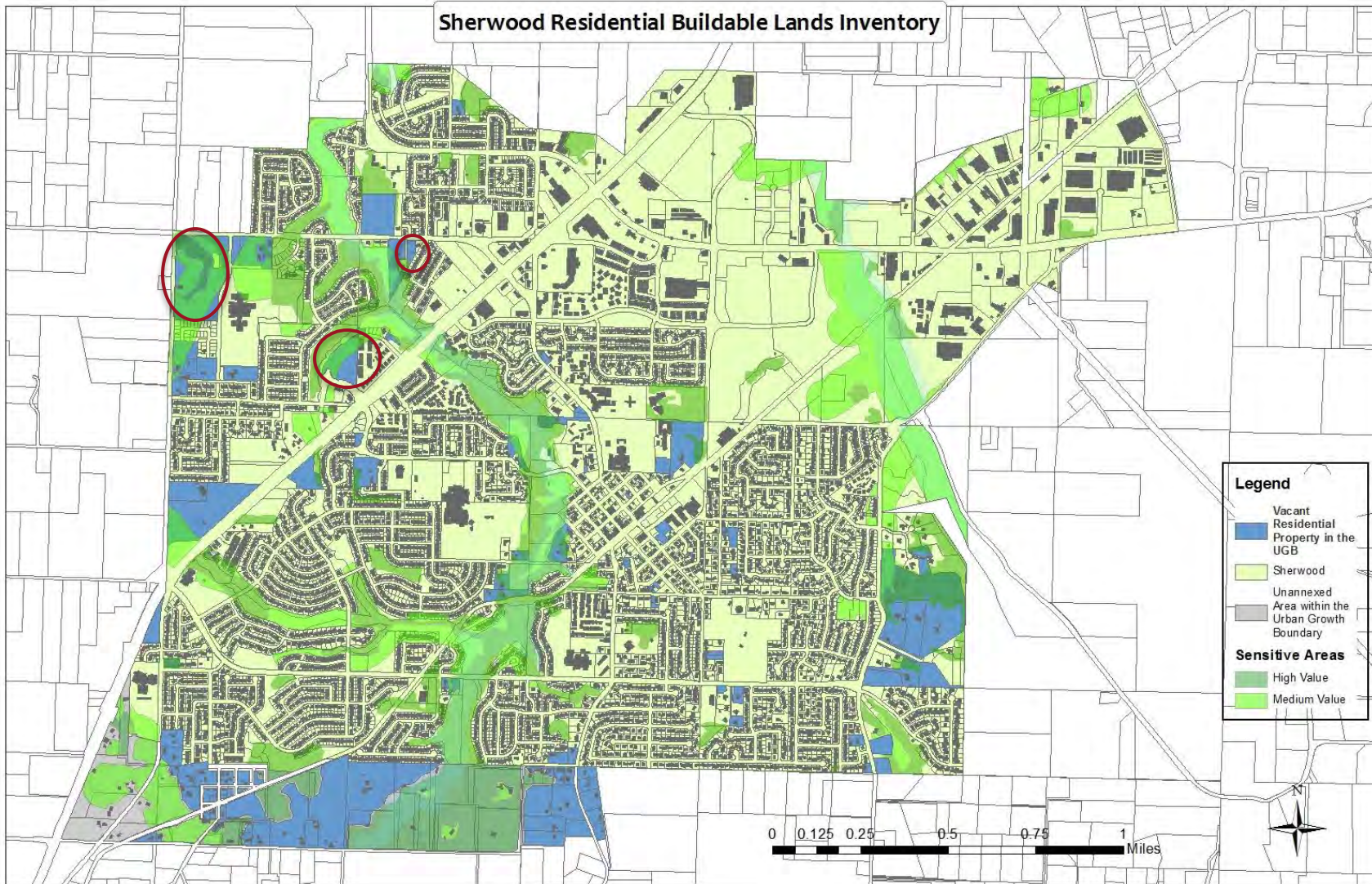
Zone	Gross Acres	Percent of Total
Land within City Limits		
Very Low Density Residential (VLDR)	24	14%
Very Low Density Residential Planned Unit Development (VLDR-PUD)	1	1%
Low Density Residential (LDR)	22	13%
Medium Density Residential-Low (MDRL)	14	8%
Medium Density Residential-High (MDRH)	21	12%
High Density Residential (HDR)	14	8%
Subtotal	96	55%
Brookman and Other Unincorporated Areas		
Very Low Density Residential (VLDR)	1	1%
Medium Density Residential-Low (MDRL)	52	30%
Medium Density Residential-High (MDRH)	8	4%
Medium Density Residential- Low/High* (MDRL/H)	15	8%
High Density Residential (HDR)	3	2%
Subtotal	79	45%
Total	175	100%

Source: City of Sherwood

*Note: There is one lot split between MDRL and MDRH.

Map 1 shows the inventory of vacant and partially vacant land in Sherwood. Notable areas where development has occurred since 2014 are circled in red on Map 1. In total, 125 new single-family detached units were permitted between January 1, 2015 and October 31, 2017.

Map 1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014



Source: City of Sherwood

RESIDENTIAL DEVELOPMENT CAPACITY

This section presents a summary of the analysis used to estimate Sherwood’s residential development capacity.

The capacity analysis estimates the number of new dwelling units that can be accommodated on Sherwood’s residential land supply.²⁷ The capacity analysis evaluates ways that vacant suitable residential land may build out by applying different assumptions.

In short, land capacity is a function of buildable land, housing mix (as determined by plan designation or zoning), and density. The basic form of any method to estimate capacity requires (1) an estimate of *buildable* land, and (2) assumptions about density. The arithmetic is straightforward:

$$\text{Buildable Land (ac)} * \text{Density (du/ac)} = \text{Capacity (in dwelling units)}$$

For example:

$$100 \text{ acres} * 8 \text{ du/ac} = 800 \text{ dwelling units of capacity}$$

The example is a simplification of the method, which skips some of the nuances that can be incorporated into a detailed capacity analysis such as variations in densities and housing mix among different Comprehensive Plan Designations.

Capacity analysis results

The capacity analysis estimates the development potential of vacant residential land to accommodate new housing based a range of density assumptions by zoning designation. Table 6 shows the capacity of Sherwood’s residential land based on the buildable vacant and partially vacant land in Sherwood and a range of potential density assumptions.

The analysis of capacity in Table 6 is meant to illustrate the potential capacity of Sherwood’s land based on current development policies and on historical development densities. Table 6 shows development capacity using: (1) the minimum allowable densities and (2) the maximum allowable densities (ensuring that lots meet the minimum lot size requirements. Table 6 also shows capacity based on historical densities.

- **Buildable Acres.** The Buildable Lands Inventory identified 175 net acres of vacant and partially vacant land, with 96 acres within Sherwood’s city

²⁷ In this report, the term “capacity analysis” is used as shorthand for estimating how many new dwelling units the vacant residential land in the UGB is likely to accommodate.

limits and 79 acres in the Brookman and other unincorporated areas within the Metro UGB.

- **Capacity based on Zoning: Minimum Densities.** The analysis considered the capacity of Sherwood's land based on minimum densities in Sherwood's zoning code. This analysis shows that Sherwood has capacity of 940 new dwelling units at 5.4 dwelling units per net acre based on minimum zoning in all districts.
- **Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes.** The analysis considered the capacity of Sherwood's land based on maximum densities in Sherwood's zoning code and the minimum lot size. This analysis was developed based on parcel-specific data. The amount of buildable land was identified in each parcel and the potential capacity was evaluated based on development standards in Sherwood's zoning code.

The maximum capacity estimate estimates the capacity of Sherwood's land based on the maximum density allowed by zone by parcel, assuming that each parcel of buildable land meets the minimum lot size of the zone it is in.

Table 6 shows that Sherwood's buildable land has capacity to accommodate 1,510 new dwelling units under these assumptions. This estimate results in an overall average of 8.6 dwelling units per net acre. About 44% of Sherwood's development capacity is in the Brookman area and other unincorporated areas within the Metro UGB.

- **Historical Development Densities.** The analysis considered the capacity of Sherwood's land based on historical development density by zone. In this analysis, we applied the historical density to the total vacant land in each zone to estimate the number of dwelling units that could be accommodated.

Table 6 shows that Sherwood's buildable land has capacity to accommodate 1,286 new dwelling units based on historical development densities. This estimate results in an overall average of 7.3 dwelling units per net acre. About 44% of Sherwood's development capacity is in the Brookman area and other unincorporated areas within the Metro UGB.

Table 6. Range of capacity estimates, Sherwood vacant and partially vacant land, gross acres and gross densities, 2015

Zone	Buildable Acres	Capacity based on Zoning: Minimum Densities		Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes		Capacity based on Historical Development Densities		Difference in Capacity between Maximum Densities and Historical Densities	
		Dwelling units	Derived Density	Dwelling units	Derived Density	Density Assumption	Dwelling units	Difference in Dwelling Units	Difference in Density
Land within City Limits									
VLDR	24	19	0.8	94	3.9	2.9	69	25	1.0
VLDR_PUD	1	-	-	4	3.8	2.9	3	1	0.9
LDR	22	71	3.2	113	5.1	6.5	144	(31)	(1.4)
MDRL	14	75	5.2	112	7.8	6.1	88	24	1.7
MDRH	21	111	5.3	223	10.7	7.7	161	62	3.0
HDR	14	224	16.0	303	21.7	19.1	266	37	2.6
Subtotal	96	500	5.2	849	8.8		731	118	8.8
Brookman and Other Unincorporated Areas									
VLDR	1	2	1.6	4	3.2	2.9	3	1	0.3
MDRL	52	275	5.3	401	7.7	6.1	317	84	1.6
MDRH	8	36	4.7	62	8.1	7.7	58	4	0.4
MDRL/H*	15	78	5.3	109	7.5	7.5	109	-	-
HDR	3	49	15.4	70	22.1	19.1	60	10	3.0
Subtotal	79	440	5.6	661	8.4		547	114	8.4
Total	175	940	5.4	1,510	8.6	7.3	1,278	232	1.3

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

*Note: There is one lot in the Brookman Area that is split zoned MDRL/MDRH. Of this 15 acre lot, 13 acres is assumed MDRH and two acres is assumed MDRL. The density assumptions for that lot are consistent with the density assumptions shown in Table 6.

Table 6 compares the difference in the capacity estimates for the “maximum density (and minimum lot size) capacity” estimate and the “historical development density” estimate. Table 6 shows that the capacity estimate based on historical development densities results in 224 fewer dwelling units than the capacity based on maximum densities. The average density using the historical development densities is 1.3 dwelling units per acre lower than the maximum density analysis.

This difference shows that development in Sherwood is generally occurring at lower than the maximum allowed densities, showing underbuild in Sherwood. Further analysis shows that residential development between 2000 and 2014 occurred at between 70% to 80% of the maximum allowable densities. The exception is Low Density Residential, where development occurred at higher than allowable densities approximately 60% of LDR development between 2000 and 2014 was in Planned Unit Developments – neighborhoods that were approved to provide a more compact development option.

Underbuild is expected as a result of development constraints that lower development capacity, such as slopes. In addition, parcel configuration contributes to underbuild, with parcels that are oddly shaped or have more land than the minimum requirement but not enough for additional housing.

Table 6 demonstrates that development in Sherwood occurred at considerably higher densities than the minimum allowable densities in each zone.

Based on the analysis in Table 6, we conclude that **both the maximum density (and minimum lot size) and the historical development density estimates exceed the State requirement (OAR 660-007-0035(2))** to “provide for an overall

density of six or more dwelling units per net buildable acre.” The estimate results in an average density of between 7.3 to 8.6 dwelling units per net acre.

The conclusion of the housing needed analysis is that Sherwood’s historical densities meet Sherwood’s future housing needs.

In addition to the capacity shown in Table 6, Sherwood could have additional residential development capacity resulting in development of housing in commercial zones and from redevelopment of residential properties with existing development (where redevelopment results in a net increase in the number of dwelling units on the property).

About 9% of Sherwood’s residential development over the 2000 to 2014 period occurred in commercial zones. It is reasonable to assume that some residential development over the next 20 years would occur in commercial zones, as long as housing is considered a secondary use to the commercial use, as required by Sherwood’s development code.

Sherwood has limited opportunities for redevelopment because much of Sherwood’s housing stock was developed over the last two decades. In addition, residential land in Sherwood is parcelized and meeting existing density requirements in areas with existing development would be difficult.

Table 7 presents a revision of the capacity shown in Table 6 for capacity based on historical densities. Between January 1, 2015 and October 31, 2017, Sherwood issued 125 permits for housing, all in the MDRL, MDRH, and HDR zones. Table 7 reduces the capacity estimate by 125 units, resulting in a capacity of 606 units on land within the city limits.

Table 7. Revised capacity based on historical development densities accounting for building permits issued in 2015 to 2017, dwelling units, 2017

Zone	Capacity based on		Revised Capacity
	Historical Development Densities	Building Permits Issued 2015 to 2017	
Land within City Limits			
VLDR	69		69
VLDR_PUD	3		3
LDR	144		144
MDRL	88	24	64
MDRH	161	27	134
HDR	266	74	192
Subtotal	731	125	606

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

Table 8 summarizes Sherwood’s development capacity based on the analysis in Table 6 (using the Historical Densities analysis) and reduction in capacity for development between 2015 and 2017 in Table 7.

Table 8. Summary of development capacity based on changes from 2015 to 2017, dwelling units, Sherwood city limits and Brookman and other Unincorporated areas, 2017

	Buildable Acres	Density Assumption	Dwelling units
Very Low Density Residential	26	2.9	76
Low Density Residential	22	6.5	144
Medium Density Residential-Low	68	6.1	392
Medium Density Residential-High	41	7.7	291
High Density Residential	17	19.1	253
Total	175	6.6	1,156

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

RESIDENTIAL LAND SUFFICIENCY

The last step in the analysis of the sufficiency of residential land within Sherwood is to compare the demand for land by zone (Table 3) with the capacity of land by zone based on historical development densities (Table 6 and Table 7). Table 9 shows that Sherwood has a deficit of capacity in each zone, for a total deficit of about 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units), Medium Density Residential-High (153 dwelling units), and High Density Residential (179 dwelling units).

Table 9. Comparison of capacity of existing residential land with demand for new dwelling units, dwelling units, Sherwood planning area, 2018-2038

Zone	Capacity (Needed Densities)	Housing Demand	Comparison Capacity minus
Very Low Density Residential	76	90	-14
Low Density Residential	144	174	-30
Medium Density Residential-Low	392	513	-121
Medium Density Residential-High	291	444	-153
High Density Residential	253	432	-179
Total	1,156	1,653	-497

Source: ECONorthwest
 Note: DU is dwelling unit.

POTENTIAL GROWTH IN SHERWOOD WEST

Development capacity in Sherwood West will vary from 3,300 to 6,500 dwelling units. The Concept Plan will begin to identify housing types and development scenarios that fit with the community's vision for Sherwood West and that are possible, given likely development and infrastructure costs

The Concept Planning work for Sherwood West is ongoing. The results of the Concept Planning work and later concept and master planning phases will determine more precisely the type and amount of housing in Sherwood West. Table 10 presents estimates of capacity in Sherwood West based on a range of density assumptions, from an average of 6.0 to 12.0 dwelling units per acre. The purpose of the information in Table 10 is to provide some idea of potential development capacity in Sherwood West.

The timing of development in Sherwood West is being discussed through the Concept Planning process. A number of factors will affect the timing of development in Sherwood West, such as when the area is brought into the Metro UGB, provisions of services, and future concept planning for the area. Sherwood West may not be fully built out until 2065. The areas expected to develop first in Sherwood West are Areas A, B, and a portion of C in the Concept Plan, which are located in the southeast part of Sherwood West, adjacent to the Brookman Area. The Sherwood School District has plans to develop a high school in Area A in the next few years.

Table 10. Potential residential development capacity, Sherwood West

	Dwelling Units	Notes
Estimate of Buildable Land		
Gross Acres	670	
Net Acres	546	We assumed an average net-to-gross factor of 18.5% for rights-of-way, regardless of parcel size.
Potential Capacity based on Density Assumptions		
Required average from OAR 660-007 - 6 DU/net acre	3,276	Under this assumption, Sherwood West would be primarily built-out with single-family detached housing. Given Sherwood's historical development densities and the City's requirement to provide opportunity that half of new development is single-family attached and multifamily, this density seems too low for Sherwood West. Issues related to costs of services and development density will be discussed in the pre-concept planning process (and again in the concept planning process) may indicate that this density assumption is too low to support development costs for Sherwood West.
Historical Development Density* - 7.8 DU/net acre	4,259	Issues related to costs of services and development density will be discussed in the pre-concept planning process (and again in the concept planning process) may indicate that this density assumption is too low to support development costs for Sherwood West.
10 DU/net acre	5,460	Metro's forecast for capacity in Sherwood West (4,844) would be accommodated at an average of 10 dwelling units per acre, with some additional capacity for other development.
12 DU/net acre	6,552	

Source: Buildable Lands Estimate from OTAK and analysis by ECONorthwest

*Note: Historical Development Density includes only development in residential zones over the 2000-2014 period.

CONCLUSIONS AND RECOMMENDATIONS

The key findings and recommendations from the housing needs analysis are as follows:

Sherwood is able to accommodate 70% of the forecast for growth within the Sherwood Planning Area.

- **Sherwood is able to meet state requirements.** The City’s primary obligations are to (1) designate land in a way that 50% of new housing could be either multifamily or single-family attached housing (e.g., townhouses) and (2) achieve an average density of six dwelling units per net acre. Put another way, the City is required to plan that 50% of their new housing will has the opportunity to be multifamily or single-family attached housing (e.g., townhouses), with all housing at an average density of 6 dwelling units per net acre. Sherwood is able to meet these requirements.
- **Sherwood is meeting its obligation to plan for needed housing types for households at all income levels.** Sherwood’s residential development policies include those that allow for development of a range of housing types (e.g., duplexes, manufactured housing, and apartments) and that allow government-subsidized housing. This conclusion is supported by the fact that Metro’s 2016 *Compliance Report* concluded that Sherwood was in compliance with Metro Functional Plan and Title 7 (Housing Choice). ~~Sherwood will have an ongoing need for providing affordable housing to lower income households.~~
- **Sherwood has a deficit of land for housing.** Sherwood can accommodate about 70% of the forecast for new housing on areas within the city limits and Brookman Area. ~~However, Sherwood has a deficit of land for 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units), Medium Density Residential High (153 dwelling units), and High Density Residential (179 dwelling units).~~
- **To provide adequate supply, Sherwood will need to continue to annex the Brookman area.** Sherwood will need to continue to annex the Brookman area in order to accommodate the City’s forecast of residential growth. The City recently annexed about 98 acres in the Brookman Area. The annexed land is in the center of the Brookman Area and has relatively few owners (about 8 property owners). Annexing and developing other parts of the Brookman area, with a larger number of owners, may be more challenging, to the extent that the property owners have to come to agreement about development.
- **Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman Area.** The growth rate of Metro’s forecast for household growth (0.8% average annual growth) is considerably lower than the City’s historical population growth rate over the last two decades (8% average annual growth). Metro’s forecast only

includes growth that can be accommodated with the Sherwood Planning area, which does not include Sherwood West.

Given the limited supply of buildable land within Sherwood, it is likely that the City’s residential growth will slow, especially if portions of Sherwood West are not brought into the Metro UGB in the earlier part of the 20-year planning period. It is likely that Sherwood’s future growth over the 2018-2038 period would be considerably slower than its historical growth rate, if for no other fact than it is mathematically more difficult to maintain a high growth rate with a larger population. In addition, Sherwood’s fast growth during the last two decades was driven by historically fast in-migration in to the Portland region, a trend that Metro’s forecast shows slowing, and the availability of vacant buildable residential land in Sherwood.

Sherwood’s fast growth during the last two decades was driven by historically fast in-migration in to the Portland region, a trend that Metro’s forecast shows slowing, and the availability of vacant buildable residential land in Sherwood.

Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman Area.

- ~~Sherwood has a relatively limited supply of land for moderate- and higher-density multifamily housing. Sherwood has 41 vacant acres of MDRH land and 17 acres of HDR land. If the City wants more multifamily housing growth in core areas of Sherwood, the City should evaluate whether to make policy changes that either increase the capacity of MDRH and HDR land or designate more land for these uses. Some specific considerations:~~

- ~~○ MDRH allows up to 11 dwelling units per acre. However the lot development requirements²⁸ for multifamily make it difficult to achieve the maximum development density. The City should evaluate the implications of changing MDRH development standards to allow densities of at least 11 dwelling units per acre or a moderate increase in the maximum allowable densities in MDRH.~~
- ~~○ The City’s supply of HDR land is very limited, with 17 vacant acres of HDR. As part of the Comprehensive Plan update, the City may choose to evaluate opportunities to upzone land to HDR, to allow more multifamily land in areas such as centers or along transportation corridors.~~
- ~~○ Sherwood’s development code does not provide opportunities for development of housing at moderate multifamily densities of 11.1 to 16.7 dwelling units per acre, the gap in densities between MDRH and HDR. As part of the Comprehensive Plan update, the City may choose to evaluate the need for a zone that allows development in this density,~~

~~Sherwood’s development code does not provide opportunities for development of housing at moderate multifamily densities between 11 to 16 dwelling units per acre.~~

~~Providing opportunities for housing in these densities may address and provide opportunities for development of a wider range of affordable housing types.~~

²⁸ Sherwood has an 8,000 square foot minimum lot size for the first two multifamily units, with a requirement for 3,200 additional square feet for each multifamily unit beyond the first two units.

~~which might include townhouses and moderate-sized apartment or condominium buildings.~~

~~o About 9% of Sherwood's residential development over the 2000 to 2014 period occurred in commercial zones., Sherwood may be able to accommodate additional multifamily residential development in these zones. The City may choose to evaluate and identify opportunities for additional multifamily development in commercial zones, as part of the Comprehensive Plan update.~~

- **Sherwood should monitor residential development.** The city may wish to develop a monitoring program that will allow Sherwood to understand how fast land is developing. The monitoring program will inform Metro's UGB planning process by providing more detailed information about housing growth and development capacity in Sherwood. This information can help City staff and decision-makers make the case to Metro staff and decision-makers about the need for residential expansion areas. We recommend using the following metrics to monitor residential growth:
 - o **Population.** The City already routinely monitors population growth by using the annual population estimates prepared by the Center for Population Research at Portland State University.
 - o **Building permits.** The Housing Needs Analysis included a review of building permits by dwelling type, plan designation, zone, and net density. Because the City collects most of the data used in the analysis of historical development density, we recommend that city staff update this analysis on an annual basis.
 - o **Subdivision and partition activity.** This metric is intended to measure the rate and density of land divisions in Sherwood. Specific data to include with subdivision and partition activity are the area of the parent lot, the area in child lots, the number of child lots, the average size or density of lots, and the area in dedicated right-of-way.
 - o **Land consumption.** This metric relates closely to the building permit data. The building permit data should include tax lot identifiers for each permit. The City should match each permit to data in the buildable lands inventory and report how much land is being used by plan designation, zone, and land classification (e.g., vacant, redevelopable, infill, etc.). Additionally, we recommend the City map the location of development on an annual basis.

This page intentionally left blank.

Appendix A. Appendix A. Residential Buildable Lands Inventory

This appendix presents the methodology used to develop the buildable lands inventory and the results of the buildable lands inventory. The information in this appendix was developed by City of Sherwood staff.²⁹

METHODOLOGY

Definitions used in the inventory

Vacant land

- Any tax lot that is fully vacant as determined by RLIS GIS Data³⁰, aerial photography, field checks and local records.
- Tax lots that are at least 95% vacant are considered vacant land.
- Tax lots that are less than 2,000 sq. feet developed AND developed part is under 10% of entire lot

Developed land

- Part vacant/part developed tax lots are considered developed and will be treated in the redevelopment filter

Steps in developing the buildable land inventory

Step 1: Inventory and map fully vacant residential lands

a. Sort City tax lot data by zoning designation within the City boundary.

The residential zones including any planned unit development overlay utilized within this study include:

- Very Low Density Residential (VLDR)
- Low Density Residential (LDR)
- Medium Density Residential Low (MDRL)
- Medium Density Residential High (MDRH)
- High Density Residential (HDR)

b. Identify parcels that are fully vacant.

²⁹ Michelle Miller, AICP, Senior Planner at the City of Sherwood developed the buildable lands inventory.

³⁰ Metro's Data Resource Center collaborates with local partners to develop and deliver the Regional Land Information System (RLIS) – more than 100 layers of spatial data that supports strategic decision-making for governments, businesses and organizations across the region.

1. Remove developed parcels using most recent Metro's RLIS GIS data.
2. Planning staff review based on current aerial photography, field checks, and local records

Step 2: Subtract unbuildable acres

a. Remove tax lots that d/n have potential to provide residential growth.

1. Tax exempt with property codes for City, State, Federal and Native American designations
2. Schools
3. Churches and social organizations-based solely on tax exempt codes
4. Private streets
5. Rail properties
6. Tax lots under the minimum lot size of the zone or 4,250 sq. ft. for residential land due to infill standards
7. Parks

b. Calculate deductions for environmental resources³¹.

1. Remove Floodways-100% removed
2. Recognize environmental constraints such as slopes over 25 % and constrained areas as defined by Cities and Counties under Metro Functional Plan Title 13-Riparian Corridors (Class I and II) and Upland Wildlife Habitat (Class A and B) -100%
3. By assumption, allow one dwelling unit per residentially zoned tax lot if environmental encumbrances would limit development such that by internal calculations no dwelling units would otherwise be permitted.

c. Calculate for future streets.³²

This methodology sets aside a portion of the vacant land supply (not redevelopment supply) in order to accommodate future streets and sidewalks.

This assumption is calculated on a per tax lot basis.

1. Tax lots less than 3/8 acre assume 0% set aside future streets.³³
2. Tax lots between 3/8 acre and 1 acre assume a 10% set aside for future streets
3. Tax lots greater than an acre assume an 18.5% set aside for future streets

³¹ Environmental resources are considered to include Title 3, Title 13 FEMA floodway and slopes over 25 %.

³² The BLI accounts for future streets on a tax lot by tax lot basis. The buildable area of each tax lot is reduced based on individual tax lot size.

³³ The basis for these net street deduction ratios derive from previous research completed by the Data Resource Center and local jurisdictions for the 2002 UGR.

4. Industrial zoning assumes a 10% set aside regardless of size.

Step 3: Inventory and map re-developable lands

a. Definition:

Re-developable: applies to lots that are classified as developed that are now likely to redevelop or during the 20-year planning period.

b. Query performed that identifies previously developed lots that have potential to redevelop over time due to the relationship between the size of the lot and the value of improvements.

1. Sites between .26-.54 acres with improvements less than \$ 50 K
2. Sites over .55 acres with improvement between \$50,001-100 K
3. Sites over 1 acre with improvement values between \$ 100,001-150 K
4. Results of this query include land that is wholly re-developable, meaning existing improvements would be replaced, and land that is partially vacant, meaning the lot could be divided to allow for additional development.

Step 4: Planning staff review of draft map-(Investigative step)

- a. Remove under construction or pending construction as of October 1, 2014
- b. Added back and redefined areas of special concern (Areas like Brookman for example)³⁴
- c. Review and add City owned properties that are developable and not held for public purpose
- d. For parcels zoned MDRH and HDR determine densities based on location and likelihood that parcel will develop with multifamily or single-family dwelling units and base densities on minimum lot size for single-family and maximum density for multifamily.
- e. Re-developable or partially vacant sites that include:
 - Properties currently for sale
 - Lots that are more than twice the minimum lot size required to support the number of existing dwelling units including tax lots that have land division potential
 - Sites that should have been identified as partially vacant but not caught earlier
 - Lands with single-family development zoned for multifamily development
- f. Remove from Map and defined the following as Not Likely to Redevelop
 - Sites occupied by active religious institutions
 - Sites with known deed restrictions
 - Sites currently under development

³⁴ Assume Brookman Concept Plan Zoning

- Sites occupied by utility infrastructure
- Commercially zoned land greater than ½ mile from either residential or town center lots-most likely won't be mixed use with residential

g. Redevelop Strike Price Analysis

- Perform on all tax lots planned for residential and commercial development, to identify Multifamily and Commercial sites with a market redevelopment strike price of less than \$10 per square foot.³⁵

$$\text{Strike Price} = \frac{(\text{Improvement value} + \text{land value})}{\text{Total Sq. Ft of lot}}$$

h. Identify possible rezone properties that would either be added or subtracted from the inventory over time.

³⁵ This formula is part of the draft proposed Metro methodology for identifying sites zoned for Multifamily and Mixed Use Development that are likely to redevelop. \$10/sq.ft. is the estimated threshold for the market supporting redevelopment of suburban sites that are zoned for multifamily development.

RESULTS OF THE BUILDABLE LANDS INVENTORY

Table A- 1 presents the City’s inventory of buildable land. The buildable lands inventory is based on City of Sherwood and Metro GIS data. Table A- 1 shows that Sherwood has 175 net acres of suitable buildable residential land. Fifty-five percent of Sherwood’s vacant land (96 acres) is within the city limits and 45% (79 acres) is within the Brookman Area or other unincorporated areas within the current Urban Growth Boundary.

Table A- 1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014

Zone	Gross Acres	Percent of Total
Land within City Limits		
Very Low Density Residential (VLDR)	24	14%
Very Low Density Residential Planned Unit Development (VLDR-PUD)	1	1%
Low Density Residential (LDR)	22	13%
Medium Density Residential-Low (MDRL)	14	8%
Medium Density Residential-High (MDRH)	21	12%
High Density Residential (HDR)	14	8%
Subtotal	96	55%
Brookman and Other Unincorporated Areas		
Very Low Density Residential (VLDR)	1	1%
Medium Density Residential-Low (MDRL)	52	30%
Medium Density Residential-High (MDRH)	8	4%
Medium Density Residential- Low/High* (MDRL/H)	15	8%
High Density Residential (HDR)	3	2%
Subtotal	79	45%
Total	175	100%

Source: City of Sherwood

*Note: There is one lot split between MDRL and MDRH.

Table A- 2 presents a revision of the capacity shown in Table A- 1 for capacity based on historical densities. Between January 1, 2015 and October 31, 2017, Sherwood issued 125 permits for housing, all in the MDRL, MDRH, and HDR zones. Table A- 2 reduces the capacity estimate by 125 units, resulting in a capacity of 606 units on land within the city limits.

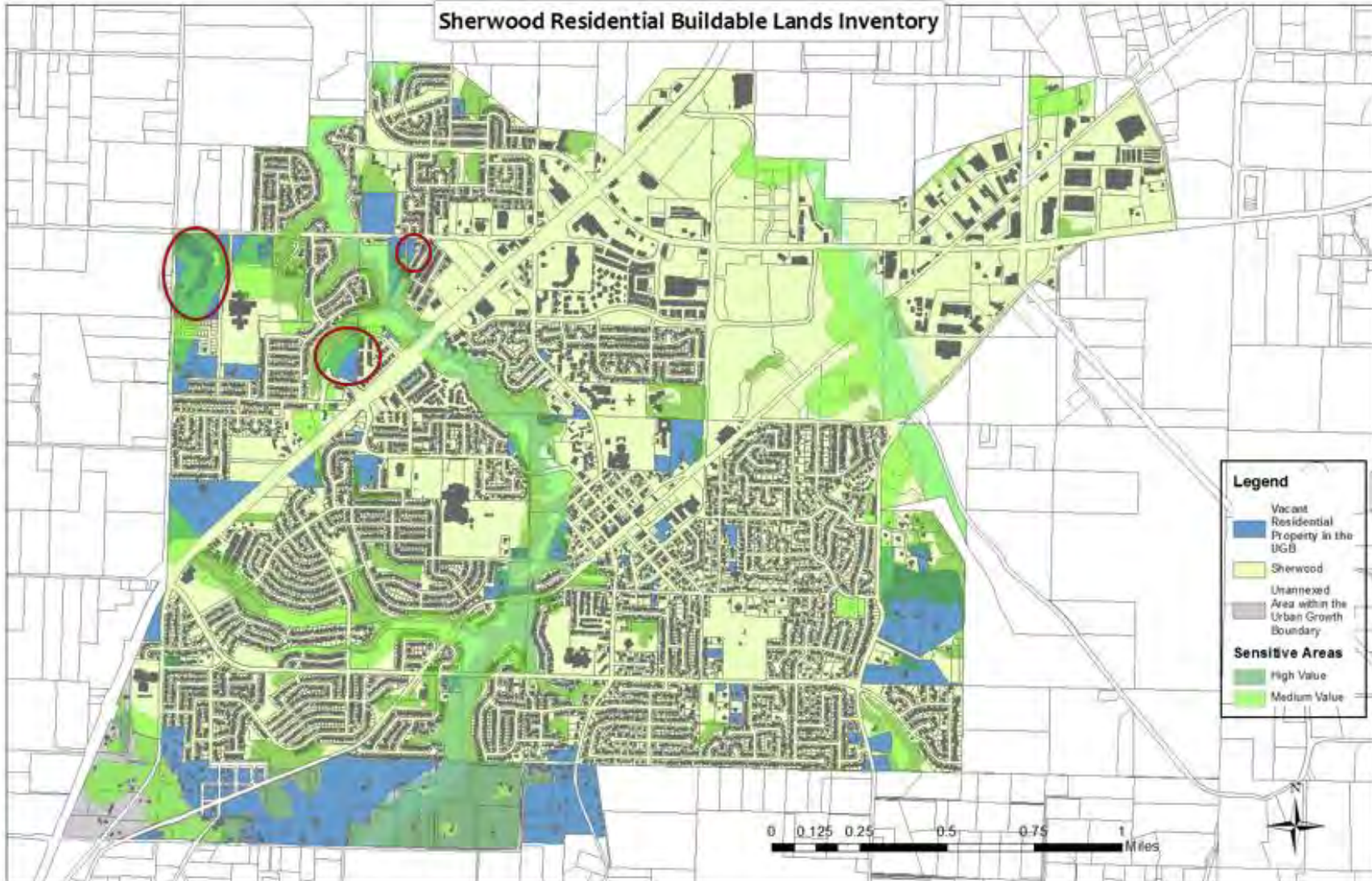
Table A- 2.. Revised capacity based on historical development densities accounting for building permits issued in 2015 to 2017, dwelling units, 2017

Zone	Capacity based on		Revised Capacity
	Historical Development Densities	Building Permits Issued 2015 to 2017	
Land within City Limits			
VLDR	69		69
VLDR_PUD	3		3
LDR	144		144
MDRL	88	24	64
MDRH	161	27	134
HDR	266	74	192
Subtotal	731	125	606

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

Map A-1 shows vacant and partially vacant land in Sherwood. Notable areas where development has occurred since 2015 are circled in red on Map 1. In total, 125 new single-family detached units were permitted between January 1, 2015 and October 31, 2017.

Map A-1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014



Source: City of Sherwood

Appendix B. Trends Affecting Housing Need in Sherwood

HISTORICAL AND RECENT DEVELOPMENT TRENDS

Analysis of historical development trends in Sherwood provides insights into how the local housing market functions. The intent of the analysis is to understand how local market dynamics may affect future housing—particularly the mix and density of housing by type. The housing mix and density by type are also key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands* Workbook:

- Determine the time period for which the data must be gathered.
- Identify types of housing to address (at a minimum, all needed housing types identified in ORS 197.303).
- Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types.

The period used in the analysis of housing density and mix is 2000 to 2014, which includes both times of high housing production and times of low housing production. This reasons for choosing this period were: (1) the 2000 to 2014 period includes more than one economic cycle, with extreme highs and extreme lows in the housing market and (2) data prior to 2005 was less easily available and obtaining data for 2000 to 2004 required a considerable amount of work by City staff to compile the data.

The housing needs analysis presents information about residential development by housing types. For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached:** single-family detached units and manufactured homes on lots and in mobile home parks.
- **Single-family attached:** all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.

Multifamily: all attached structures other than single-family detached units, manufactured units, or single-family attached units.

These categories of housing type were chosen for the analysis because they meet the requirements of needed housing types in ORS 197.303.³⁶

Data used in this analysis

Throughout this analysis, we use data from multiple well-recognized and reliable data sources. One of the key sources for data about housing and household data is the U.S. Census. This report primarily uses data from two Census sources:

- The **Decennial Census**, which is completed every ten years and is a survey of all households in the U.S. The Decennial Census is considered the best available data for information such as demographics (e.g., number of people, age distribution, or ethnic or racial composition); household characteristics (e.g., household size and composition); and housing occupancy characteristics. As of the 2010 Decennial Census, it does not collect more detailed household information, such as income, housing costs, housing characteristics, and other important household information. Decennial Census data is available for 1990, 2000, and 2010.
- The **American Community Survey (ACS)**, which is completed every year and is a sample of households in the U.S. The 2009-2013 ACS sampled about 16.2 million households, or about 2.8% of the households in the nation. The ACS collects detailed information about households, such as demographics (e.g., number of people, age distribution, ethnic or racial composition, country of origin, language spoken at home, and educational attainment); household characteristics (e.g., household size and composition); housing characteristics (e.g., type of housing unit, year unit built, or number of bedrooms); housing costs (e.g., rent, mortgage, utility, and insurance); housing value; income; and other characteristics.

In general, this report uses data from the 2009-2013 ACS for Sherwood. Where information is available, we report information from the 2010 Decennial Census.

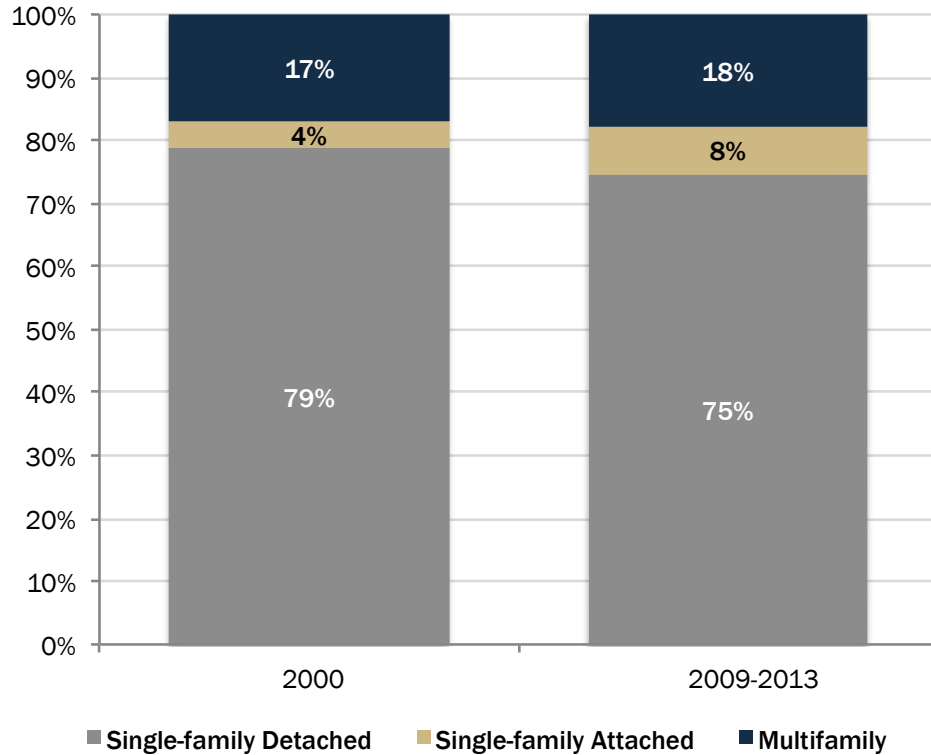
Trends in housing mix in Sherwood

According to the American Community Survey, Sherwood had more than 6,500 housing units in the 2009-2013 period. Figure B- 1 shows that Sherwood's housing stock is predominantly single-family detached housing. In 2000, 79% of

³⁶ The analysis of development in Sherwood attempts to separate single-family detached and single-family attached housing. However, the City's building permit system does not distinguish between these two types of housing. City staff manually identified single-family attached housing that was developed with a concentration of single-family attached housing. City staff were unable to identify small-scale, single-family attached development scattered throughout the city.

Sherwood’s housing stock was single-family detached and 77% was single-family detached in 2009-2013. The share of multifamily units increased from 17% of Sherwood’s housing stock in 2000 to 18% in 2009-2013.

Figure B- 1. Mix of Housing Types, Sherwood, 2000 to 2009-2013



Source: U.S. Census 2000 SF3 Table H030, American Community Survey 2009-2013, Table B25024.

Table B- 1 and [Figure B- 2](#) show that the mix of housing developed over the 2000 to 2014 period was predominantly single-family housing (including single-family detached, single-family attached, and manufactured housing), accompanied by intermittent growth in multifamily.

Over the entire 2000 to 2014 period, Sherwood issued permits for nearly 2,225 dwelling units, with about 148 permits issued per year. About 69% of dwellings permitted were single-family detached, 9% were single-family attached, and 23% were multifamily.

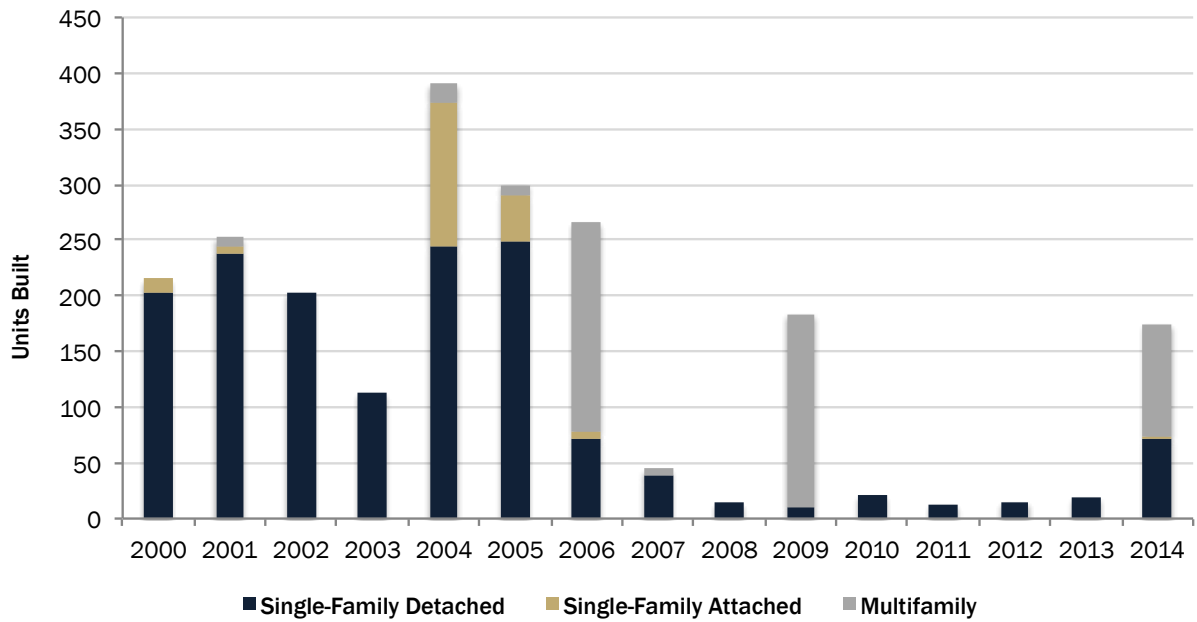
In addition, 125 units were permitted during the January 1, 2015 to October 31, 2017 period. All units permitted were single-family detached. These permits are not shown in Table B- 1 and [Figure B- 2](#).

Table B- 1. Building permits by type of unit, Sherwood, 2000-2014

Housing Type	New Units Permitted	Average of New Units Permitted Annually	Mix of New Units
Single-Family Detached	1,525	102	69%
Single-Family Attached	196	13	9%
Multifamily	504	34	23%
Total	2,225	148	100%

Source: City of Sherwood Building Permit Database.
 Notes: Single-Family Detached includes manufactured housing.

Figure B- 2. Building permits by type of unit, Sherwood, 2000 to 2014

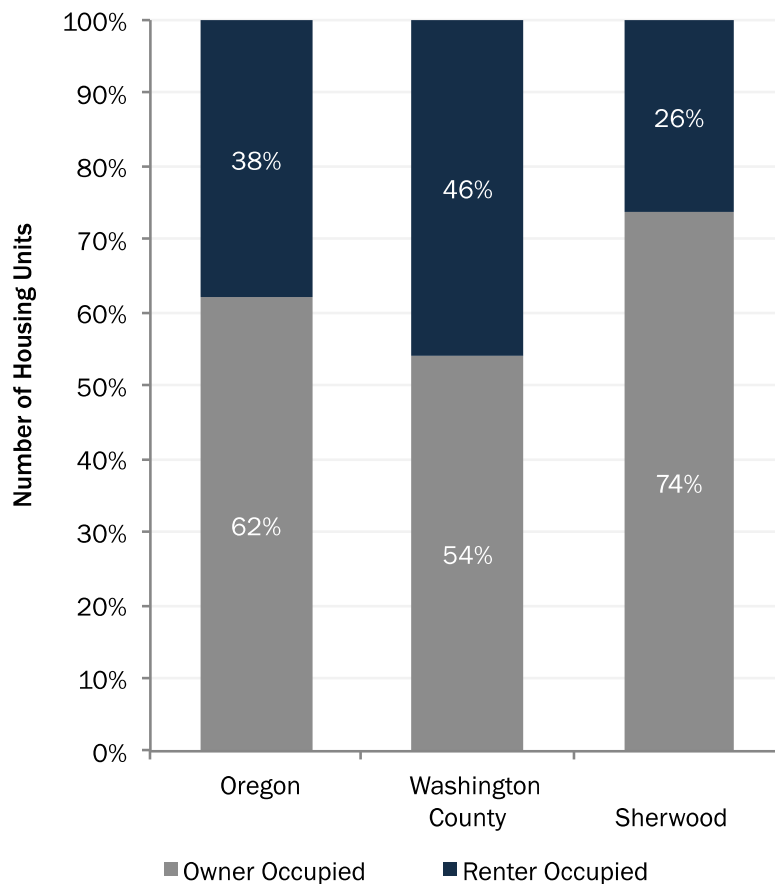


Source: City of Sherwood Building Permit Database.
 Notes: Single-Family Detached includes manufactured housing.

Trends in Tenure

Figure B- 3 shows housing tenure in Oregon, Washington County, and Sherwood for the 2009-2013 period. Sherwood has a higher rate of ownership (74%) than the county (54%) and the state (62%).

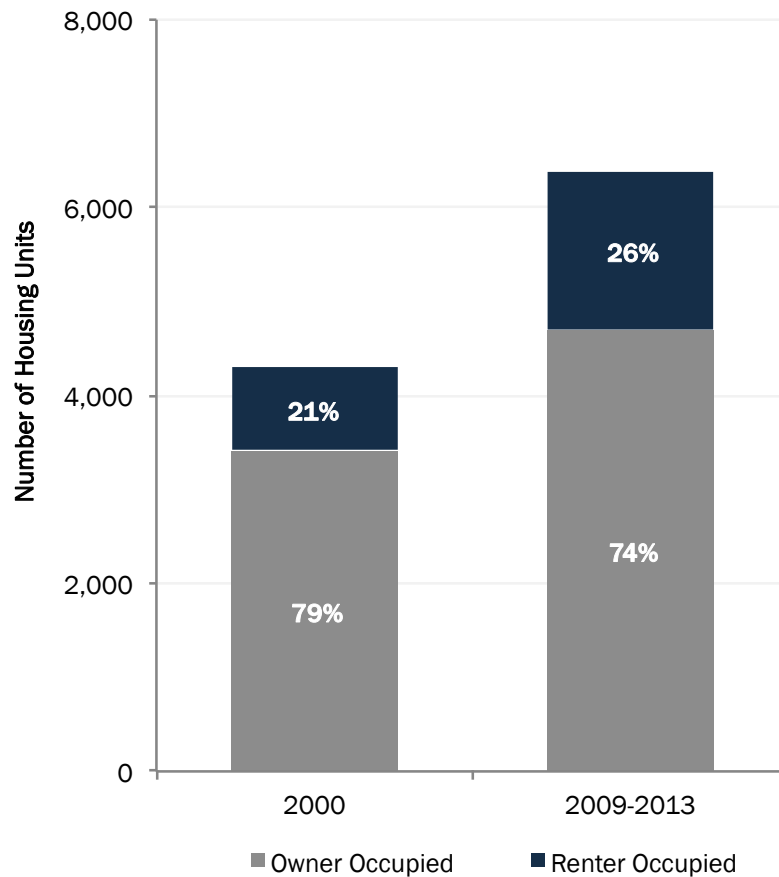
Figure B- 3. Housing Tenure, Oregon, Washington County, Sherwood, 2009-2013



Source: American Community Survey 2009-2013, Table B25003.

Figure B- 4 shows change in tenure (owner versus renter-occupied housing units) for the City of Sherwood over the 2000 to 2009-2013 period. The overall homeownership rate declined, from 79% to 74% between 2000 to 2009-2013, while renting increased by 5%. This change is consistent with national and statewide trends in homeownership.

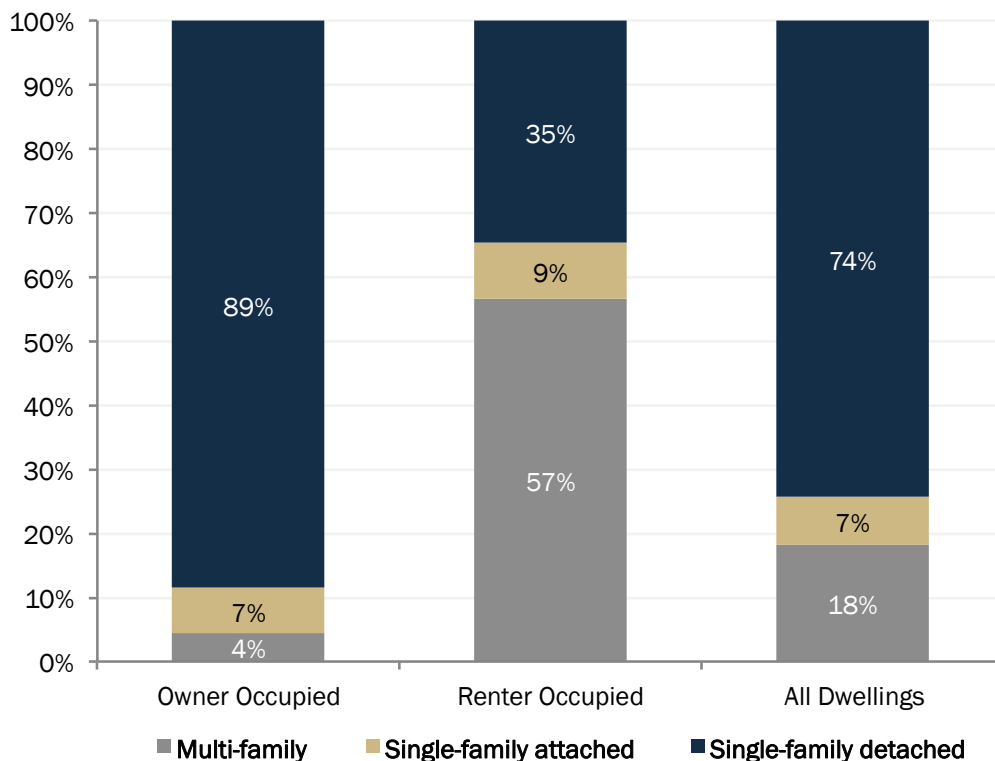
Figure B- 4. Tenure, occupied units, Sherwood, 2000 to 2009-2013



Source: U.S. Census 2000 SF3 Table H032, American Community Survey 2009-2013 Table B25003.

Figure B- 5 shows the types of dwelling in Sherwood in 2009-2013 by tenure (owner/renter-occupied). The results indicate that in Sherwood, single-family housing types are most frequently owner-occupied (70% of all housing is single-family, owner-occupied housing) and multifamily housing is most frequently renter-occupied (15% of all housing is multifamily renter-occupied housing).

Figure B- 5. Housing units by type and tenure, Sherwood, 2009-2013



Source: American Community Survey 2009-2013 Table B25032.

Housing Vacancy Rates

Table B- 2 shows vacancy rates in Oregon, Multnomah, Washington, and Clackamas counties, and Sherwood between 2000 and 2009-2013. Vacancy rates increased in Oregon, and Clackamas counties, but fell in Multnomah and Washington counties, and in Sherwood. As the 2009-2013 period, Sherwood had a relatively low vacancy rate (2.7%) compared to the regional counties, whose rates ranged from 5.5% to 7.0%, and to Oregon (9.6%).

Table B- 2. Housing vacancy rate, Oregon, Multnomah, Washington and Clackamas Counties, and Sherwood, 2000 to 2009-2013

	Oregon	Multnomah County	Washington County	Clackamas County	Sherwood
2000	8.2%	6.4%	5.7%	5.5%	3.6%
2009 - 2013	9.6%	5.9%	5.5%	7.0%	2.7%
Change 2000 to 2009-2013	17.1%	-7.5%	-3.6%	28.3%	-24.7%

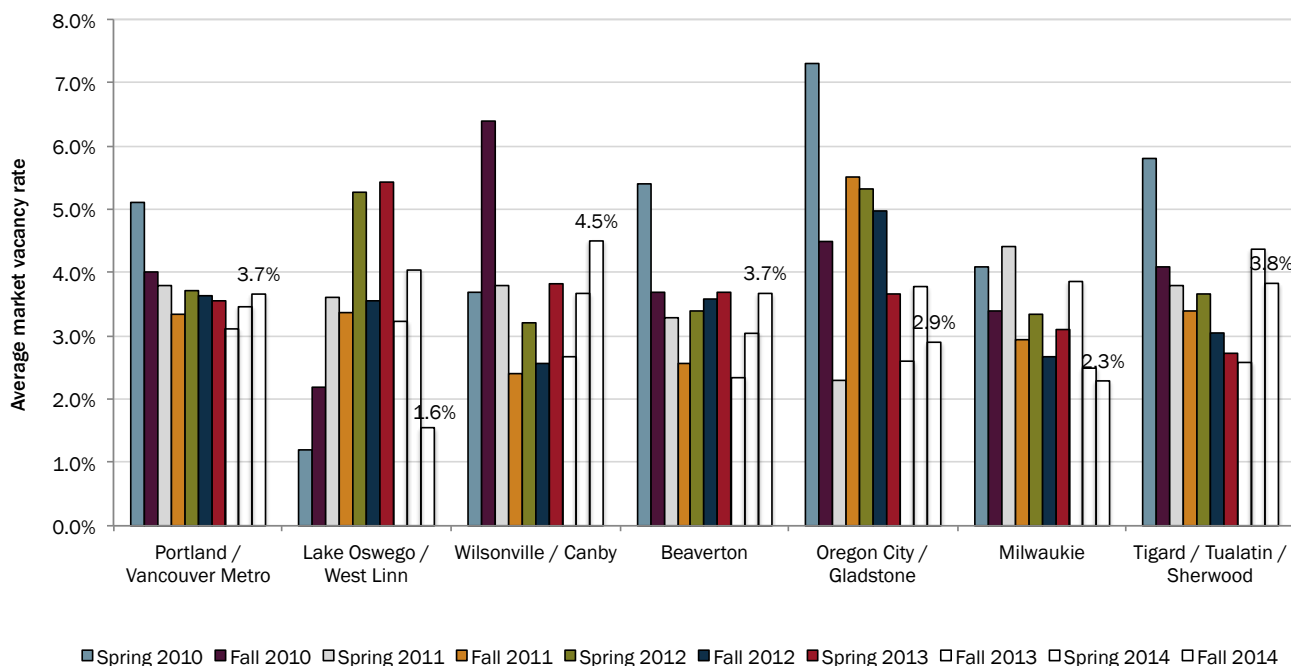
Source: U.S. Census 2000 SF1 Table H003, American Community Survey 2009-2013 Table B25002.

Multifamily NW tracks trends in the Portland area rental market and publishes a semi-annual report. Figure B- 6 shows average market vacancy rates for apartments for the Portland/Vancouver region and selected submarkets in the south-central Portland Region. The vacancy rates in the

Tigard/Tualatin/Sherwood area varied from a high of 5.8% in Spring 2010 to a low of 2.6% in Fall 2013. The vacancy rate in this area was within 1% (above or below) the vacancy rate for the Portland /Vancouver metro area. According to the Fall 2014 Apartment Report, the vacancy rate for apartments in the Tigard/Tualatin/Sherwood area was 3.8%, slightly higher than the regional average of 3.7%.

Multifamily vacancy rates vary, in part, as a result of building new multifamily developments. When a new multifamily development comes on the market, it may take months (or longer) for the new units to be absorbed into the housing market through rental of new units. During this absorption period, the vacancy rate will generally increase for multifamily housing.

Figure B- 6. Average market vacancy rates for apartments, Portland/Vancouver Metro area and selected submarkets, 2010-2014



Multifamily NW Apartment Reports, Spring 2010 – Fall 2014.

Density

Housing density is the density of housing by structure type, expressed in dwelling units per net or gross acre.³⁷ The U.S. Census does not track residential development density.

This study analyzes housing density based on new residential development within Sherwood between 2000 and 2014, similar to the analysis of achieved mix. The analysis of housing density uses data from the City of Sherwood’s building permits database.

Table B- 3 shows that development that was permitted between 2000 and 2014 achieved overall average densities of 8.2 dwelling units per net acre. The majority of permitted housing was single-family detached housing, which averaged 6.5 dwelling units per net acre. Multifamily housing achieved an average of 20.5 and single-family attached achieved an average of 17.9 dwelling units per net acre.

Table B- 3. Estimated density by type of unit, net acres, Sherwood, 2000-2014

Housing Type	New and Existing Units	Acres	Density (dwelling unit per acre)
Single-Family Detached	1,641	251	6.5
Single-Family Attached	196	11	17.9
Multifamily	504	25	20.5
Total	2,341	286	8.2

Source: City of Sherwood Building Permit Database.

Note: Single-Family Detached includes manufactured housing

Note: The number of new single-family detached housing is higher in **Table B- 3** than in Table B- 1 because **Table B- 3** includes 116 existing manufactured dwellings in manufactured housing parks. These dwellings were included as part of the density calculation to correctly calculate the densities of manufactured housing in the manufactured housing parks with one or more newly permitted dwellings over the 2000 to 2014 period.

Table B-4 shows an analysis of residential development density (dwelling units per net acre) over the 15-year period for Sherwood by zoning designation. Table B-4 shows:

- Ninety-two percent of residential development was in residential zones, which had an overall density of 7.8 dwelling units per net acre.
- Density in residential zones varied from 2.9 dwelling units per net acre in the Very Low Density Residential zone to 19.1 dwelling units per net acre in the High Density Residential zone.

³⁷ OAR 660-024-0010(6) uses the following definition of net buildable acre. “Net Buildable Acre” “...consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.” While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

- Density in the Low Density Residential zone averaged 6.5 dwelling units per net acre. Development in Planned Unit Developments (PUD) in this zone achieved an average of 7.6 dwelling units per net acre, which explains the relatively high density in this zone.
- Density in Commercial and Mixed-Use zones averaged 15.6 dwelling units per net acre.

Table B-4. Housing density by Zone, net acres, Sherwood, 2000 to 2014

Zone	New and Existing Units	Acres	Density (dwelling unit per acre)
Residential Zones			
Very Low Density Residential	53	18	2.9
Low Density Residential	807	124	6.5
PUD	487	64	7.6
Non-PUD	320	59	5.4
Medium Density Residential-High	301	39	7.7
Medium Density Residential-Low	368	60	6.1
High Density Residential	605	32	19.1
Residential subtotal	2,134	273	7.8
Commercial and Mixed Use Zones			
Office Commercial	150	6	24.4
Mixed-use Commercial and Condo	55	7	7.9
Retail Commercial	2	0	17.4
Commercial subtotal	207	13	15.6
Total	2,341	286	8.2

Source: City of Sherwood Building Permit Database

NATIONAL HOUSING TRENDS

The overview of national, state, and local housing trends builds from previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies at Harvard University.³⁸ The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing follows trends in jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the numbers of underwater homeowners, delinquent loans, and vacancies remain high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

Trends in housing development

The single-family housing market began strong in 2013, but by the arrival of 2014, housing starts were down 3% and new home sales had fallen 7% from the year before. The *State of the Nation's Housing Report* attributes most of the decline to increases in mortgage interest rates and meager improvements in employment and wages.

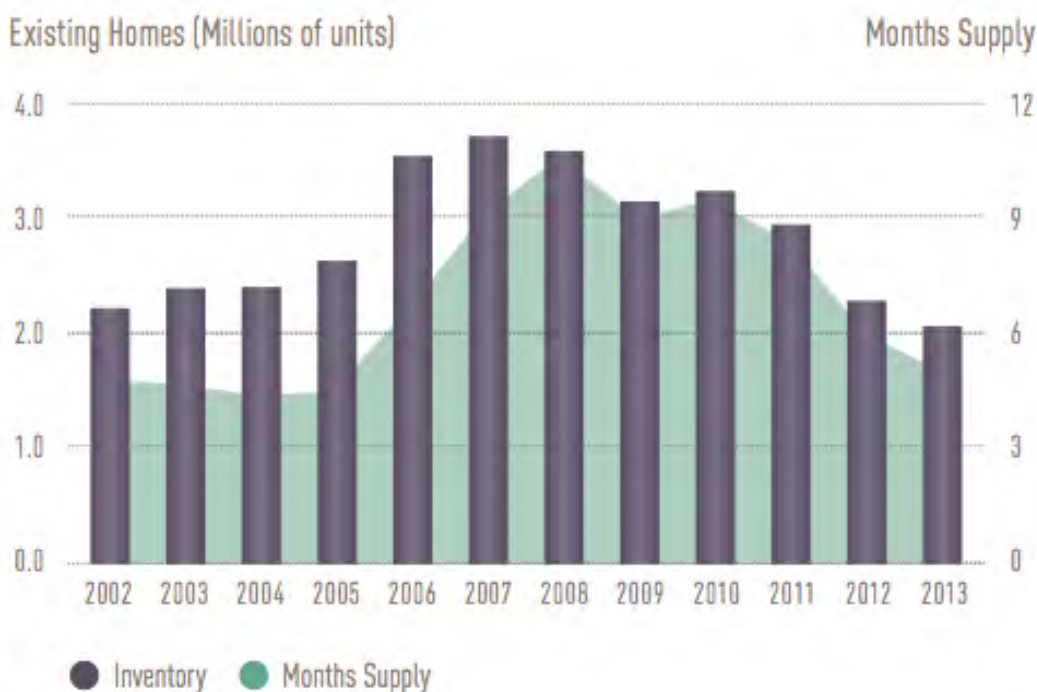
Thirty-year mortgage interest rose in 2014, bucking a downward trend. After falling to a low of around 3.4% in 2013, rates rose to around 5% in 2014. The rise of mortgage interest rates increased the cost of investment in a home and contributed to the fall in the rate of housing starts. In addition to the rise of mortgage interest rates, “steady but unspectacular job growth” presented a fundamental obstacle to the housing market’s progress, according to the report. Employment grew, but slowly, and incomes continued to fall. As long as job and wage growth remain slow, potential homebuyers will not create sufficient demand for robust growth in the housing market.

³⁸ The State of the Nation's Housing, Harvard University, 2014, accessed January 2014.
http://www.jchs.harvard.edu/research/state_nations_housing

Other recent trends in the housing market included: home inventories remained low (homes now spend less than six months on the market), investors purchased fewer distressed properties, the renter market grew, and a larger share of young people chose to live with their parents.

Supplies of existing homes for sale remained low in 2013, which may reflect the unwillingness or inability of owners to sell at current prices (Figure A- 1). As home prices return to levels that are more acceptable to sellers, more homes will go on the market.

Figure A- 1. Inventories of Homes for Sale Against Months Supply, 2002-2013

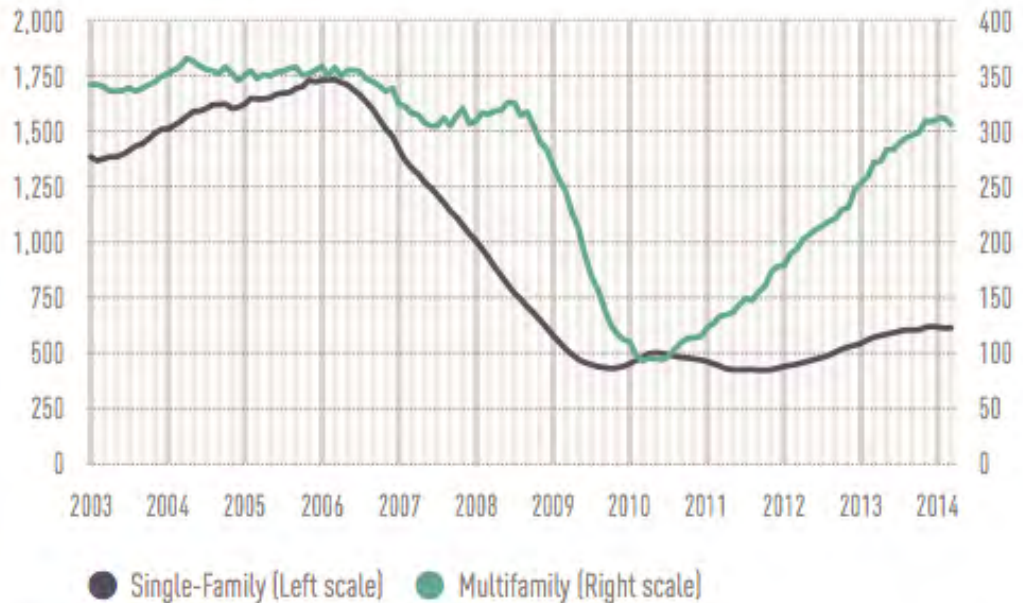


Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

Multifamily home construction continued robust growth for a third consecutive year. Multifamily starts increased 25% to over 300,000 in 2013, approaching pre-recession levels of around 350,000. In contrast to strong multifamily housing growth, single-family home starts grew slowly, at only about 15%, well below pre-recession levels of production: less than 620,000 starts in 2013, compared to over 1.5 million in 2006. These growth trends are shown in Figure A- 2.

Figure A- 2. Housing Starts, 2003-2014

Starts (Thousands of units)

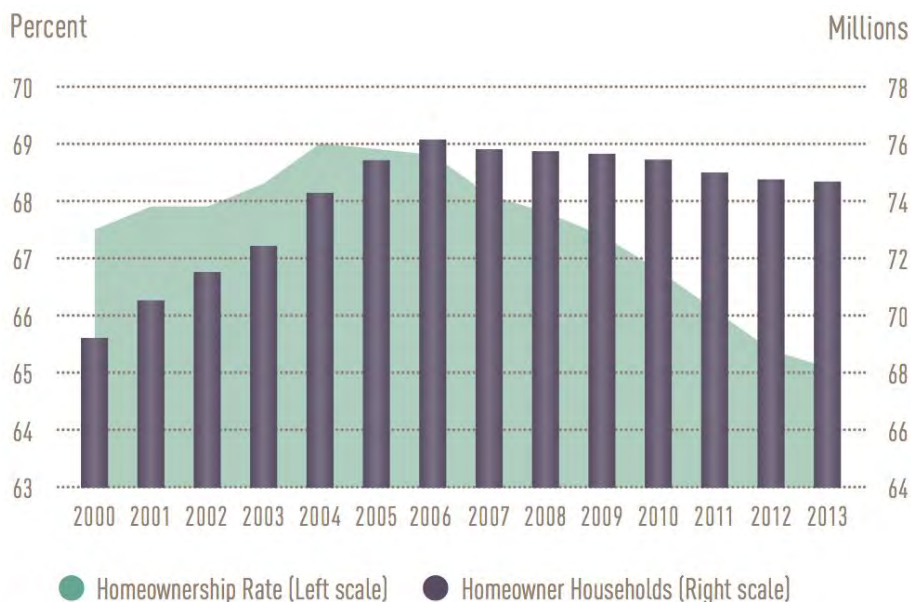


Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

Long run trends in home ownership and demand

The housing market downturn and foreclosure crisis had an immediate and potentially lasting impact on homeownership. After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at approximately 65%. However, while the rate declined again in 2013, it was the smallest drop since 2008. As seen in Figure A- 3, the US homeownership rate fell only 0.3 percentage points.

Figure A- 3. Homeownership Rates and the Number of Homeowner Households, 2000-2013



Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The long-term market outlook shows that homeownership is still the preferred tenure. While further homeownership gains are likely during the next decade, they are not assured. Additional increases depend, in part, on the effect of foreclosures on potential owner’s ability to purchase homes in the future, as well as whether the conditions that have led to homeownership growth can be sustained.

The Joint Center for Housing Studies indicates that demand for new homes could total as many as 13 million units nationally between 2015 and 2025. The location of these homes may differ from recent trends, which favored lower-density development on the urban fringe and suburban areas. The Urban Land Institute identifies the markets that have the most growth potential as “global gateway, 24-hour markets,” which are primary coastal cities with international airport hubs (e.g., Washington D.C., New York City, San Francisco, or Seattle). Development in these areas may be nearer city centers, with denser infill types of development.³⁹

The Joint Center for Housing Studies also indicates that demand for higher density housing types exists among certain demographics. They conclude that because of persistent income disparities, as well as the movement of the

³⁹ Urban Land Institute, “2011 Emerging Trends in Real Estate” and “2012 Emerging Trends in Real Estate”

Millennials into young adulthood, housing demand may shift away from single-family detached homes toward more affordable multifamily apartments, town homes, and manufactured homes.

Home rental trends

Nationally, the rental market continues to grow. In 2013, the number of households living in rental units increased by half a million, marking the ninth consecutive year of expansion. In addition to growth in rentals in 2013, the million-plus annual increases observed in 2011 and 2012 puts current growth rates on pace to easily surpass the record 5.1 million gain in the 2000s.

Rental markets across the country have been tightening, pushing up rents across the majority of markets. Rental vacancy rates also continued to drop in 2013, both nationwide and in most metros. The US rental vacancy rate stood at 8.3% in 2013 and, while this is the lowest level observed since 2001, this was still high relative to the 7.6% averaged in the 1990s.

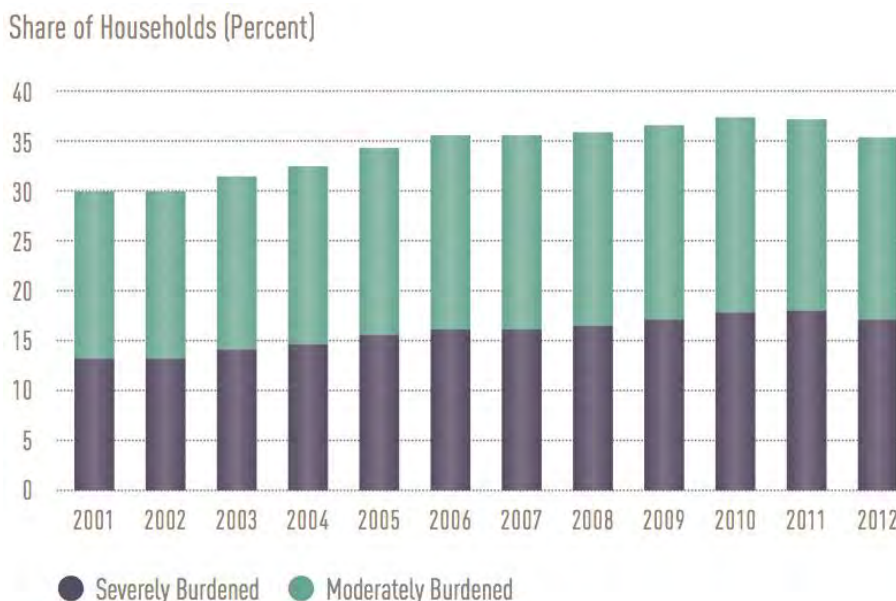
Over the longer term, the Joint Center for Housing expects demand for rental housing to continue to grow. Minorities will be the largest driver of rental demand because they are on average younger and less likely to own homes than whites. Demographics will also play a role. Growth in young adult households will increase demand for moderately priced rentals, in part because the oldest Millennials reached their late-20s around 2010. Meanwhile, growth among those between the ages of 45 and 64 will lift demand for higher-end rentals.

As the homeownership market recovers, the growth in renter households will likely slow. Since much of the increased demand for rental housing has been met through the conversion of single-family homes to rentals, future market adjustments may come from a return of these units to owner-occupancy. Additionally, the echo-boom generation should provide strong demand for rental units in the coming years.

Trends in housing affordability

Many homeowners pay a disproportionate share of their income on housing, with 35% of households in the U.S. who are cost burdened.⁴⁰ While the share of households that are cost burdened fell by about 4% in 2012, the share of households that were cost burdened increase between 2001 and 2011 (Figure A-4). More than 15% of U.S. households are severely cost burdened.

Figure A- 4. Share of Cost-burdened Households, 2001-2012



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The Joint Center for Housing Studies points to widening income disparities, decreasing federal assistance, and depletion of inventory through conversion or demolition as three factors exacerbating the lack of affordable housing. While the Harvard report presents a relatively optimistic long-run outlook for housing markets and for homeownership, it points to the significant difficulties low- and moderate-income households face in finding affordable housing and preserving the affordable units that do exist.

According to the Joint Center for Housing Studies, these statistics understate the true magnitude of the affordability problem because they do not capture the tradeoffs people make to hold down their housing costs. For example, these figures exclude people who live in crowded or structurally inadequate housing units. They also exclude the growing number of households that move to

⁴⁰ Households are considered cost burdened if they spent 30% or more of their gross income on housing costs. Households who spent 50% or more of their gross income on housing costs are considered severely cost burdened.

locations distant from work where they can afford to pay for housing, but must spend more for transportation to work. Among households in the lowest expenditure quartile, those living in affordable housing, spent an average of \$100 more on transportation per month in 2010 than those who are severely housing cost-burdened. With total average monthly outlays of only \$1,000, these extra travel costs could amount to roughly 10 percent of the entire household budget.

Demographic trends in housing preference

Demographic changes likely to affect the housing market and homeownership are:

- The aging of the Baby Boomers, the oldest of whom were in their late-60's in 2012.
- Housing choices of younger Baby Boomers, who were in their early to mid-50's in 2010.
- The children of Baby Boomers, called the Millennials, who ranged from their late teens to late twenties in 2012.
- Immigrants and their descendants, who are a faster growing group than other households in the U.S.⁴¹

The aging of the Baby Boomers will affect housing demand over the next decades. People prefer to remain in their community as they age.⁴² The challenges that aging seniors face in continuing to live in their community include: changes in healthcare needs, loss of mobility, the difficulty of home maintenance, financial concerns, and increases in property taxes.⁴³ Not all of these issues can be addressed through housing or land use policies.

Communities can address some of these issues through adopting policies that:

- Diversify housing stock to allow development of smaller, comparatively easily-maintained houses in single-family zones, such as single-story townhouses, condominiums, and apartments.
- Allow commercial uses in residential zones, such as neighborhood markets.
- Allow a mixture of housing densities and structure types in single-family zones, such as single-family detached, single-family attached, condominiums, and apartments.

⁴¹ Urban Land Institute, "2011 Emerging Trends in Real Estate"

⁴² A survey conducted by the AARP indicates that 90% of people 50 years and older want to stay in their current home and community as they age. See <http://www.aarp.org/research>.

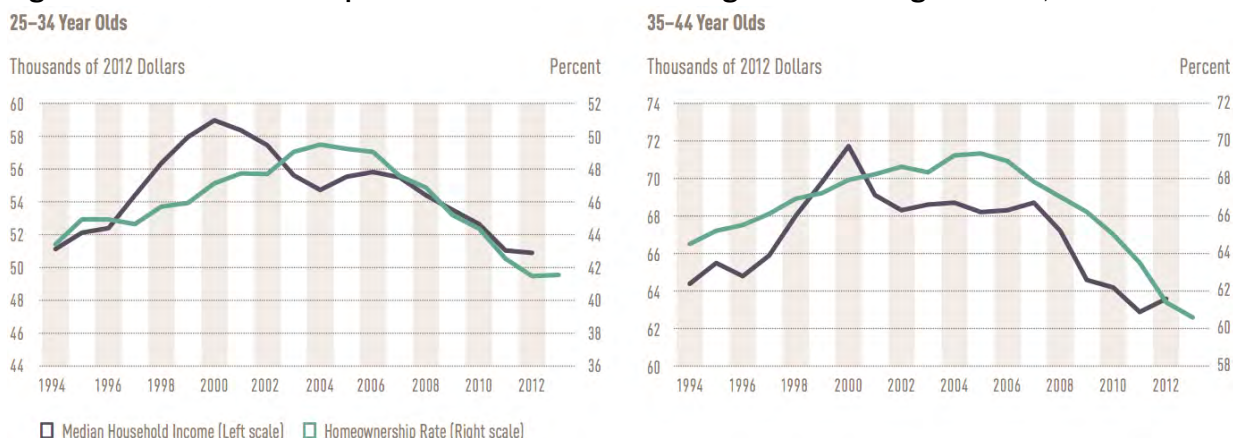
⁴³ "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

- Promote the development of group housing for seniors that are unable or do not choose to continue living in a private house. These facilities could include retirement communities for active seniors, assisted living facilities, or nursing homes.
- Design public facilities so that they can be used by seniors with limited mobility. For example, design and maintain sidewalks so that they can be used by people in wheelchairs or using walkers.

Household formation fell to around 600,000 to 800,000 in the 2007-2013 period, well below the average rate of growth in previous decades. Despite sluggish growth recently, several demographic factors indicate increases in housing growth to come. The Millennial generation (those born after 1985) is the age group most likely to form the majority of new households. While low incomes have kept current homeownership rates among young adults below their potential, Millennials may represent pent-up demand that will release when the economy fully recovers. As Millennials age, they may increase the number of households in their 30s by 2.4 to 3.0 million over the through 2025.

While the population of young adults between 20 and 29 years grew in the 2003-2013 decade by more than 4 million from the previous decade, the rate at which members of this age group formed their own households fell. As a result, household growth has not kept pace with overall population growth. Even if today's low household formation rates were to persist, however, the aging of the Millennials into their 30s will likely raise household headship rates due to lifecycle effects. About 60% of all 35-44 year-olds head an independent household, compared with less than 42% of all 25-34 year-olds. Thus, the Millennial generation, more populous than the Baby Boomers, is expected to be the primary driver of new household formation over the next twenty years.

Figure A- 5. Homeownership Rates and Incomes for Young and Middle-Aged Adults, 1994-2012



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10.
<http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

It is currently unclear what housing choices the Millennials will make. Some studies suggest that their parents' negative experience in the housing market, with housing values dropping so precipitously and so many foreclosures, will make Millennials less likely to become homeowners. In addition, high unemployment and underemployment may decrease Millennials' earning power and ability to save for a down payment. It is not clear, however, that Millennials' housing preferences will be significantly different from their parents over the long run.

Recent surveys suggest that as Millennials age and form families, they will increasingly prefer to live in single-family homes in suburban locations. A recent survey by the National Association of Homebuilders finds that roughly three-quarters of Millennials want to live in a single-family home and would prefer to live in a suburb, compared to just 10% that would prefer to live in a city center.

Other recent surveys suggest that Millennials prefer to live in walkable communities, where there are alternatives to driving. According to surveys from the American Planning Association and Transportation For America, at least three quarters of Millennials want their city to offer opportunities to live and work without relying on a car. While Millennials may choose housing that satisfies these preferences, the cost of living will place parameters on their housing choices. According to the APA survey, 71% percent of Millennials rated affordable housing as a high priority for metro areas.

In coming years Millennials will pursue homes that provide a combination of space, "walkability," and affordability. They will demonstrate these preferences

in the market soon: according to the APA survey, more than half of Millennials consider themselves at least somewhat likely to move within the next five years.⁴⁴

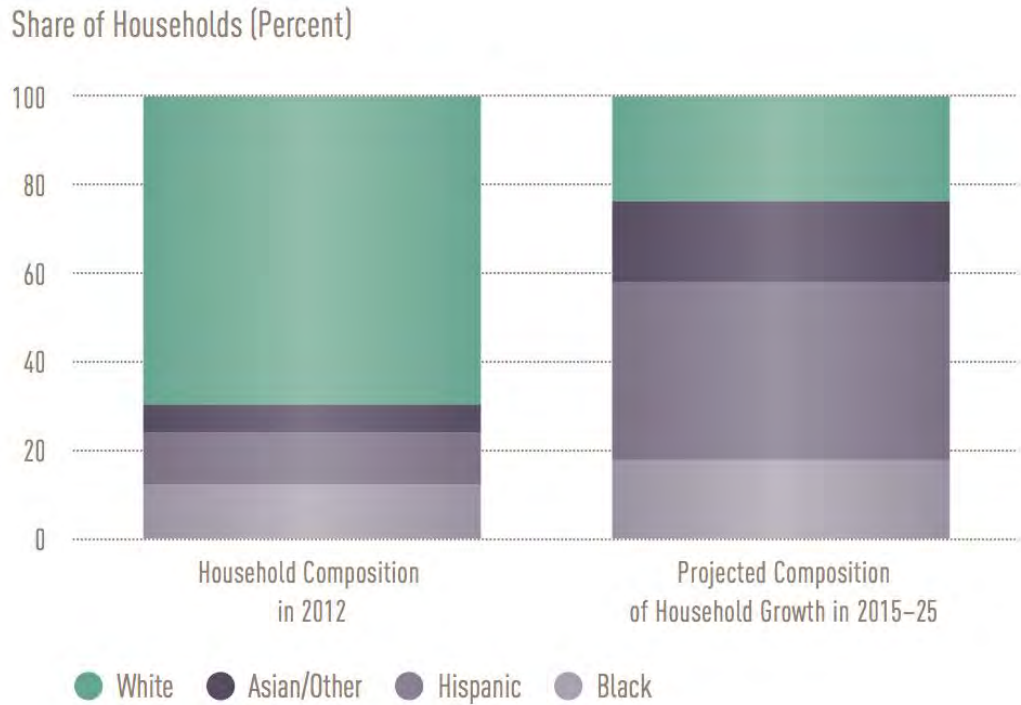
From 2004 to 2013, homeownership rates for 25-34 year olds and 35-44 year olds fell by around 8% and 9% respectively, with ownership rates for people 25 to 54 years old at the lowest point since recordkeeping started in 1976 (Figure A- 5). Nonetheless, the 25 and 34 year-old age group still makes up the majority of first-time homebuyers. Young adults in this cohort make up 54.3 percent of first-time homebuyers. Their majority among first-time homebuyers means that their ability to buy homes will play an important role in growth of the housing market in the near future.

The fall in homeownership among young adults results largely from the decline in income. Approximately 6 million more individuals between 20 and 29 years earned less than \$25,000 than in 2003, while the number of those earning between \$25,000 and \$50,000 fell by over a million. Furthermore, the share of households younger than 30 years with student loan debt increased by more than 7% since 2007, from 33.9% to 41.0%.

According to the Joint Center for Housing Studies, immigration and increased homeownership among minorities will also play a key role in accelerating household growth over the next 10 years. Current Population Survey estimates indicate that the number of foreign-born households rose by nearly 400,000 annually between 2001 and 2007, and accounted for nearly 30 percent of overall household growth. Beginning in 2008, the influx of immigrants was stanchied by the effects of the Great Recession. After a period of declines, however, the foreign born are again contributing to household growth. Census Bureau estimates of net immigration in 2011–12 indicate an increase of 110,000 persons over the previous year, to a total of nearly 900,000. Furthermore, as shown in Figure A- 6, the Harvard report forecasts that minorities will make up about 76% of the household growth between 2015 and 2025. The greater diversity among young adults partly explains the increased share of growth that will belong to minorities. For example, about 45% of Millennials are minorities, compared to 28% of Baby Boomers.

⁴⁴ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014. "Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders Show, accessed January, 2015, <http://www.buildersshow.com/Search/isesProgram.aspx?id=17889&fromGSA=1>. "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America, accessed January 2015, http://t4america.org/wp-content/uploads/2014/04/Press-Release_Millennials-Survey-Results-FINAL-with-embargo.pdf.

Figure A- 6. Share of Households by Racial/Ethnic Group, 2012 and 2015-25



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The growing diversity of American households will have a large impact on the domestic housing markets. Over the coming decade, minorities will make up a larger share of young households, and constitute an important source of demand for both rental housing and small homes. This makes the growing gap in homeownership rates between whites and blacks and whites and Hispanics troubling. Since 2001, the difference in homeownership rates between whites and blacks rose from 25.9 to 29.5 in 2013. Similarly the gap between white and Hispanic homeownership rates increased since 2008, from below 26%, to over 27% in 2013. This growing gap between racial and ethnic groups will hamper the country's homeownership rate as minority households constitute a larger share of the housing market.

Trends in Housing Characteristics

The U.S Census Bureau's Characteristics of New Housing Report (2013) presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several long-term trends in the characteristics of housing are evident from the New Housing Report:⁴⁵

⁴⁵ <https://www.census.gov/construction/chars/highlights.html>

- **Larger single-family units on smaller lots.** Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 sq. ft. to 2,384 sq. ft., and 19% in the western region from 1,985 sq. ft. to 2,359 sq. ft. Moreover, the percentage of units fewer than 1,400 sq. ft. nationally decreased by almost half, from 15% in 1999 to 8% in 2012. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2013, the percentage of lots less than 7,000 sq. ft. increased from 27% of lots to 36% of lots.
- **Larger multifamily units.** Between 1999 and 2013, the median size of new multiple family dwelling units increased by 2% nationally and 3% in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 32% in 2013 nationally, and increased from 25% to 32% in the western region.
- **More household amenities.** Between 1990 and 2013, the percentage of single-family units built with amenities such as central air conditioning, 2 or more car garages, or 2 or more baths all increased. The same trend in increased amenities is seen in multifamily units.

During the recession, the trend towards larger units with more amenities faltered. Between 2007 and 2009, for example, the median size of new single-family units decreased by 6% throughout the nation, including in the West. In addition, the share of new units with amenities (e.g., central air conditioning, fireplaces, 2 or more car garages, or 2 or more bath) all decreased slightly during this time. With the recovery, however, housing sizes have been increasing annually; median housing sizes increased by 12% between 2009 and 2013 nationwide, and 10% in the western region. The short term, post-recession trends regarding amenities are mixed, but generally appear to be increasing (albeit more slowly than housing sizes).

It appears that the decreases in unit size and amenities were a short-term trend, resulting from the housing crisis. However, numerous articles and national studies suggest that these changes may indicate a long-term change in the housing market, resulting from a combination of increased demand for rental units because of demographic changes (e.g., the aging of the baby boomers, new immigrants, and the echo-boomers), as well as changes in personal finance and availability of mortgages.⁴⁶

These studies may be correct and the housing market may be in the process of a long-term change, with some fluctuations over time in unit size and amenities.

⁴⁶ These studies include "Hope for Housing?" by Greg Filsram in the October 2010 issue of Planning and "The Elusive Small-House Utopia" by Andrew Rice in the New York Times on October 15, 2010.

On the other hand, long-term demand for housing may not be substantially affected by the current housing market. The echo-boomers and new immigrants may choose single-family detached housing and mortgages may become easier to obtain.

Studies and data analysis have shown a clear linkage between demographic characteristics and housing choice. This is more typically referred to as the linkage between lifecycle and housing choice and is documented in detail in several publications. Analysis of data from the Public Use Microsample (PUMS) in the 2000 Census helps to describe the relationship between selected demographic characteristics and housing choice. Key relationships identified through this data include:

- Homeownership rates increase as income increases;
- Homeownership rates increase as age increases;
- Choice of single-family detached housing types increases as income increases;
- Renters are much more likely to choose multiple family housing types than single-family; and
- Income is a stronger determinate of tenure and housing type choice for all age categories.

STATE DEMOGRAPHIC TRENDS

Oregon's 2011-2015 Consolidated Plan includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.⁴⁷ The plan concludes that, "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, when compared to the nation.
- Experiencing higher foreclosure rates since 2005, compared with the previous two decades.
- Losing federal subsidies on about 8% of federally subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.

⁴⁷ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

- Increasingly older, more diverse, and has less affluent households.⁴⁸

REGIONAL AND LOCAL DEMOGRAPHIC TRENDS

Regional demographic trends largely follow the statewide trends discussed above, but provide additional insight into how demographic trends might affect housing in Sherwood. Demographic trends that might affect the key assumptions used in the baseline analysis of housing need are: (1) the aging population, (2) changes in household size and composition, and (3) increases in diversity. This section describes those trends.

The following section presents data tables. In a few places, additional explanatory text is included. For the most part, the text describing the implications of the tables is in the main part of the document.

Growing population

Sherwood has a growing population. Table B- 5 shows population growth in the U.S., Oregon, the Portland Region, Washington County, and Sherwood, between 1990 and 2013.

Table B- 5. Population in U.S., Oregon, the Portland Region, Washington County, and Sherwood, 1990-2013

Area	Population			Change 1990 to 2013		
	1990	2000	2013	Number	Percent	AAGR
U.S.	248,709,873	281,421,906	311,536,594	62,826,721	25%	1.0%
Oregon	2,842,321	3,421,399	3,919,020	1,076,699	38%	1.4%
Portland Region	1,174,291	1,444,219	1,693,600	519,309	44%	1.6%
Washington County	311,554	445,342	550,990	239,436	77%	2.5%
Sherwood	3,093	11,963	18,575	15,482	501%	8.1%

Source: US Census Bureau Decennial Census 1990 and 2000; Portland State University, Population Research Center
 Note: AAGR is average annual growth rate.

The housing needs analysis in this report is based on a coordinated household forecast from Metro (the January 2016 2040 TAZ Forecast), which is a necessary prerequisite to estimate housing needs. The projection of household growth includes areas currently within the city limits, as well as areas currently outside the city limits that the City expects to annex for residential uses (most notably the Brookman area). We call these areas combined the “Sherwood planning area.”

Table B-6 presents Metro’s forecast for household growth and new housing development in the Sherwood planning area for the 2010 to 2040 period. The table shows Metro’s forecast for the Sherwood city limits, areas currently outside

⁴⁸ State of Oregon *Consolidated Plan 2011 to 2015*.

http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

the city limits that are expected to be annexed by 2040, which are together the Sherwood planning area. Table B-6 shows Metro’s forecast for the number of households in each of the following years:

- **2010.** Metro’s forecast uses an estimate of the number of households in 2010 as the starting point of the forecast.
- **2015.** Estimate of number of households in 2015.
- **2040.** Metro’s forecast estimates household growth of 2,078 dwelling units or 30%, by 2040. Part of the forecasting process was providing jurisdictions an opportunity to review and comment on the forecast for growth through 2040.

Table B-6 also shows Metro’s forecast for the Sherwood West area, which is forecast to grow by 4,157 dwelling units by 2040. While Metro forecasts that this development will occur over the 2015 to 2040 period, the discussion of timing of this development in the Concept Planning process suggests that Sherwood West may take 50 years (2015 to 2065) to develop the 4,157 dwelling units in Metro’s forecast.

Table B-6. Metro forecast for housing growth, Sherwood planning area, 2010 to 2040

Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2010	6,476	242	6,718	270
2015	6,784	226	7,010	293
2040	7,653	1,435	9,088	4,811
Change 2015 to 2040				
Households	869	1,209	2,078	4,518
Percent	13%	535%	30%	1542%
AAGR	0.5%	7.7%	1.0%	11.8%

Source: Metro 2040 TAZ Forecast by Households, January 2016

Note: The Sherwood City Limits are the following Metro Transportation Analysis Zones (TAZs): 989 to 997.

The Brookman area is predominantly in Transportation Analysis Zone 978, with a small area in 988.

Brookman is an area that the City expects to annex for residential growth over the planning period.

Sherwood West is parts of Transportation Analysis Zones 1428, 1429, and 1432.

Sherwood’s housing needs analysis must be based on a 20-year period, but Metro’s forecast describes growth over a 25-year period. Table B- 7 shows an extrapolation of Metro’s forecast for the 2018 to 2038 period. ECONorthwest extrapolated Metro’s forecast to 2018 based on the number of households in 2015 and the growth rate in the forecast between 2015 and 2040. We assumed that little to no growth happened in Sherwood West between 2015 and 2018, an

assumption that is supported by the relative lack of building permit activity in these areas.

Table B- 7 shows that the Sherwood planning area will add 1,653 new households between 2018 and 2038, with 697 new households inside the existing city limits and 956 new households in outside the current city limits in the Brookman Area.

Table B- 7. Extrapolated Metro forecast for housing growth, Sherwood planning area, 2018 to 2038

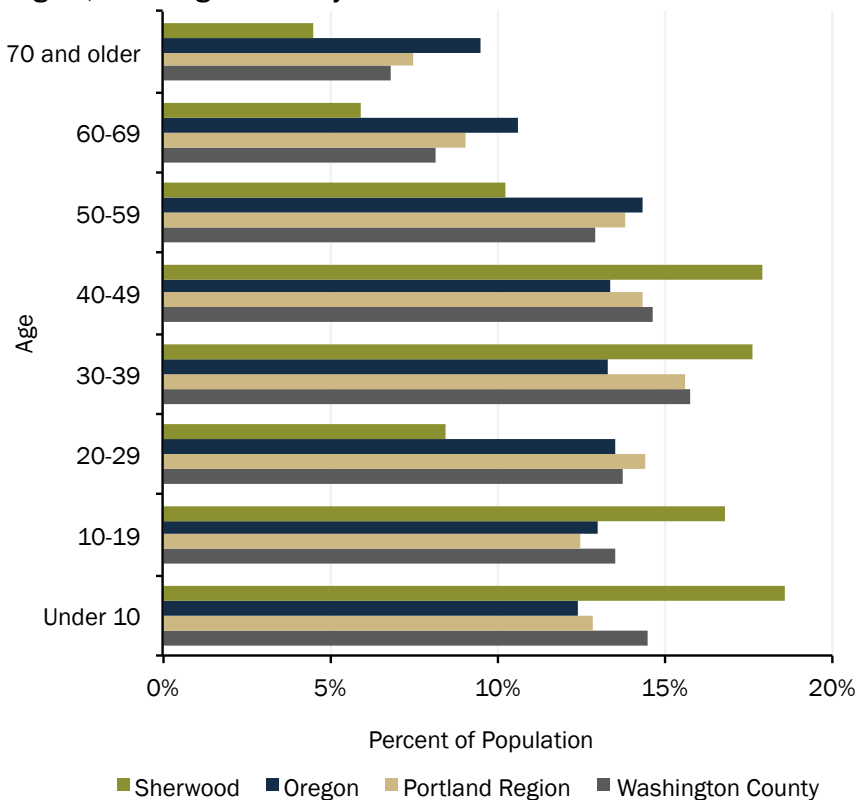
Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2018	6,883	282	7,165	293
2038	7,580	1,238	8,818	4,450
Change 2015 to 2040				
Households	697	956	1,653	4,157
Percent	10%	339%	23%	1419%
AAGR	0.5%	7.7%	1.0%	14.6%

Source: Metro 2040 TAZ Forecast by Households, January 2016

Aging population

In 2010, the median age in Sherwood was 34.3 years old, compared to the median of 35.3 in Washington County, and the State median of 38.4. Figure B- 7 shows the populations of Oregon, the Portland Region, Washington County, and Sherwood by age in 2010.

Figure B- 7. Population Distribution by Age for Oregon, Sherwood, Oregon, Portland Region, Washington County



Source: U.S. Census 2010, Profile of General Population and Housing Characteristics

Table B- 8 shows population by age in Sherwood for 2000 and 2010. Over the 2000 to 2010 period, the population of people aged 45 to 64 years old grew the fastest, increasing from 1,936 to 3,917, or 102%.

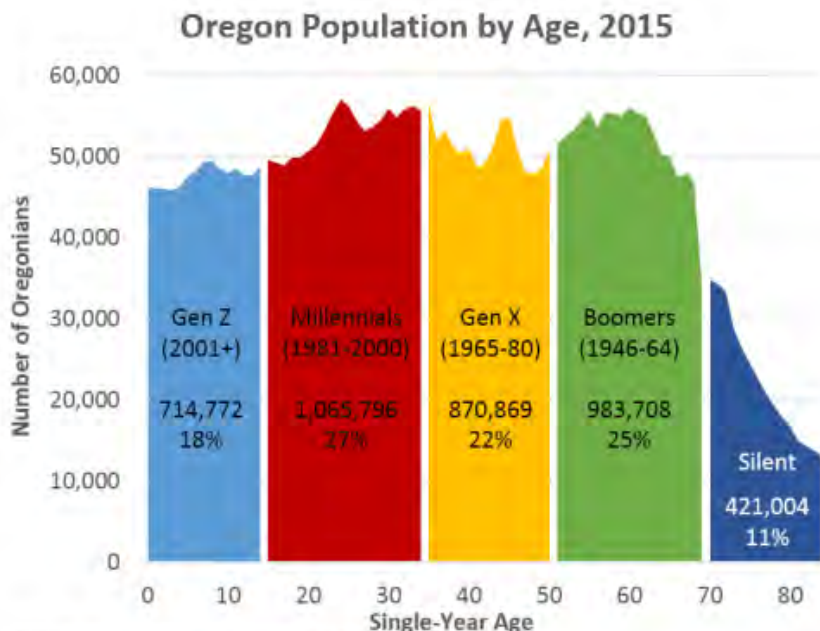
Table B- 8. Population by Age, Sherwood, 2000 and 2010

Age Group	2000		2010		Change 2000-2010		
	Number	Percent	Number	Percent	Number	Percent	Share
Under 5	1,351	11%	1,518	8%	167	12%	-3%
5-17	2,383	20%	4,589	25%	2,206	93%	5%
18-24	644	5%	939	5%	295	46%	0%
25-44	4,854	41%	5,991	33%	1,137	23%	-8%
45-64	1,936	16%	3,917	22%	1,981	102%	5%
65 and over	623	5%	1,240	7%	617	99%	2%
Total	11,791	100%	18,194	100%	6,403	54%	0%

Source: U.S. Census 2000 Table P12, U.S. Census 2010 Table P12

Figure B- 8 shows the population distribution by generation and age in Oregon in 2015. The largest groups are the Millennials (27% of Oregon’s population) and the Baby Boomers (25% of Oregon’s population). By 2035, the end of the planning period for this analysis, Millennials will be between 35 and 54 years old. Baby Boomers will be 71 to 89 years old.

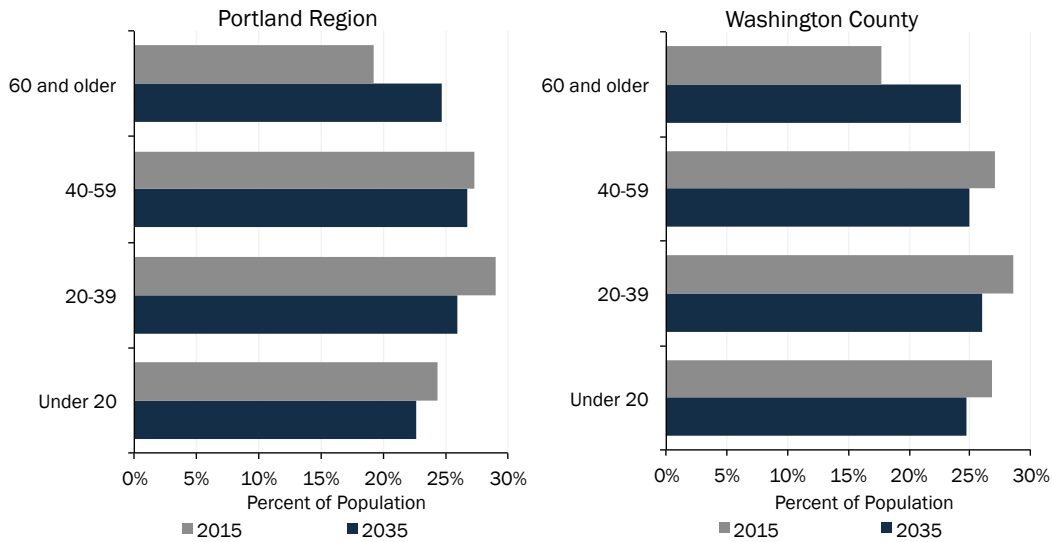
Figure B- 8. Population Distribution by Generation and Age, Oregon, 2015



Source: Oregon Office of Economic Analysis
 Source: Oregon Office of Economic Analysis, “Population, Demographics, and Generations” by Josh Jehner, February 5, 2015.
<http://oregoneconomicanalysis.com/2015/02/05/population-demographics-and-generations/>

Figure B- 9 shows the Office of Economic Analysis’s (OEA) forecast of population change by age group, from 2015 to 2035, for the Portland Region. By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The percent of total population in each age group younger than 60 years old will decrease. The age distribution in the Portland Region will change in a similar pattern.

Figure B- 9. Current and projected population by age, Portland Region and Washington County, 2015 and 2035

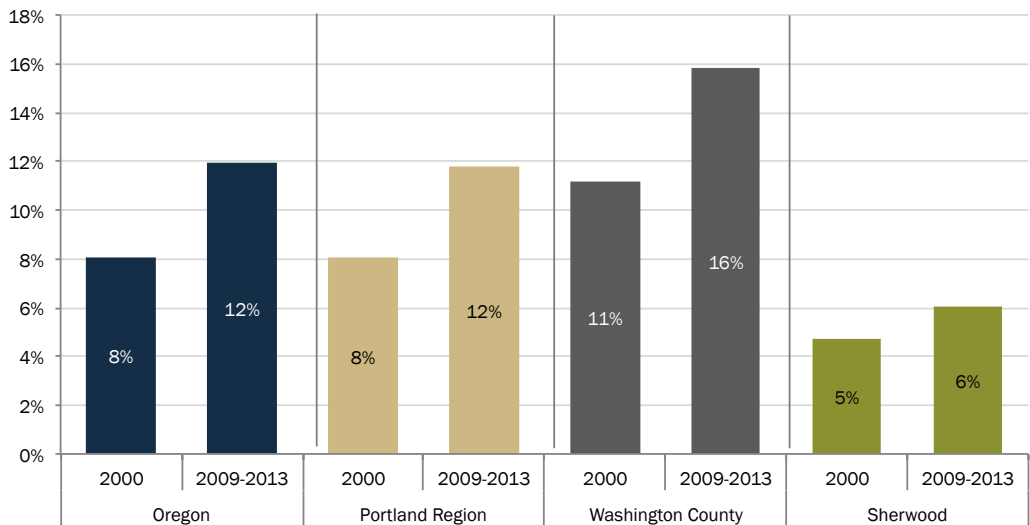


Source: Oregon Office of Economic Analysis.
http://www.oregon.gov/DAS/OEA/docs/demographic/pop_by_ageandsex.xls

Increased ethnic diversity

Figure B-10 shows the percentage of the total population that is of Hispanic or Latino origin for Oregon, the Portland Region, and Sherwood, in 2000 and 2009-2013. Between 2000 and 2009-2013, Hispanic or Latino population increased from 5% of the population to 6% of the population, adding 550 additional Hispanic or Latino residents. Sherwood has a smaller percentage of Hispanic or Latino population than the county or regional average.

Figure B- 10 Hispanic or Latino population by percentage, Oregon, the Portland Region, Washington County, Sherwood, in 2000 and 2009-2013



Source: U.S. Census 2000 SF1 Table P008, American Community Survey 2009-2013 Table B03003.

Household size and composition

Household size

Table B- 9 shows average household sizes in Oregon, the Portland Region, Washington County, and Sherwood in 2000 and the 2009-2013 period.

Table B- 9. Average household size, Oregon, Portland Region, Washington County, and Sherwood, 2000 to 2009-2013.

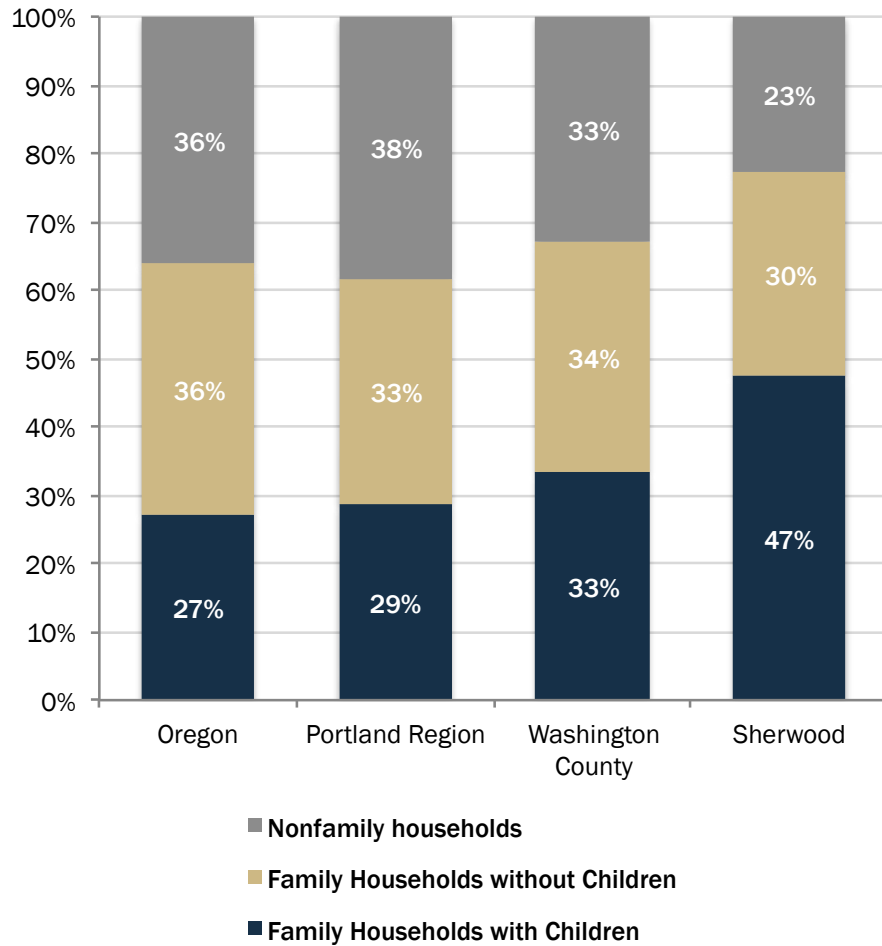
	Oregon	Portland Region	Washington County	Sherwood
2000				
Average household size	2.51	2.53	2.61	2.77
Owner-occupied units	2.59	2.67	2.75	2.85
Renter-occupied units	2.36	2.30	2.39	2.47
2009-2013				
Average household size	2.49	2.54	2.64	2.89
Owner-occupied units	2.55	2.64	2.72	3.00
Renter-occupied units	2.41	2.37	2.53	2.57
Change 2000 to 2009-2013				
Average household size	-0.02	0.00	0.03	0.12
Owner-occupied units	-0.04	-0.02	-0.03	0.15
Renter-occupied units	0.05	0.07	0.14	0.10

Source: U.S. Census 2000 SF1 H012, American Community Survey 2009-2013 Table B25010.

Household composition

Figure B- 11 shows household composition in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013. A larger share of Sherwood’s housing composition is family household with children (47%) compared to that of Washington County (33%), the Portland Region (29%), and Oregon (27%).

Figure B- 11. Household composition, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Tables DP02.

Group Quarters

Table B- 10 shows the population living in group quarters in Oregon, the Portland Region, Washington County, and Sherwood in 2000 and 2010. Only seven out of 18,194 Sherwood residents lived in group quarters in 2010, less than 0.0%. In contrast, 2.3% of Oregon’s population and 1.8% of the Portland region’s population lives in group quarters.

Table B- 10. Persons in group quarters, Oregon, Portland Region, Washington County, and Sherwood, 2000 to 2010.

	2000	2010
Oregon		
Total Population	3,421,399	3,831,074
Persons in Group Quarters	77,491	86,642
Percent in Group Quarters	2.3%	2.3%
Percent in correctional institutions	0.6%	0.6%
Portland Region		
Total Population	1,444,219	1,641,036
Persons in Group Quarters	23,667	29,124
Percent in Group Quarters	1.6%	1.8%
Percent in correctional institutions	0.0%	0.0%
Washington County		
Total Population	445,342	529,710
Persons in Group Quarters	4,101	6,788
Percent in Group Quarters	0.9%	1.3%
Percent in correctional institutions	0.1%	0.4%
Sherwood		
Total Population	11,791	18,194
Persons in Group Quarters	19	7
Percent in Group Quarters	0.2%	0.0%
Percent in correctional institutions	0.0%	0.0%

Source: U.S. Census 2000 SF1 Tables P1 and P37, U.S. Census 2010 SF1 Tables P1 and P42

Commuting trends

Commuting within the Portland region is common, with small cities like Sherwood seeing the vast majority of workers commute out of the city for work and the majority of people working in the city commuting in from other parts of the region. Figure B- 12 shows this pattern in Sherwood, with the majority of people living in Sherwood commuting out for work and the majority of people working in Sherwood commuting into the city for work.

Figure B- 12. Inflow and Outflow of Employment and Residence in Sherwood, 2011



Source: U.S. Census Bureau: LED on the Map, <http://lehdmap3.did.census.gov/themap3/>
The U.S. Census bases this data on Unemployment Insurance earnings data and the Quarterly Census of Employment and Wages (QCEW) data, combined with administrative data, additional administrative data and data from censuses and surveys. From these data, the program creates statistics on employment, earnings, and job flows at detailed levels of geography and industry and for different demographic groups.

Table B- 11 shows the places where Sherwood residents were employed in 2011. More than 90% of Sherwood residents worked outside of the city.

Table B- 11. Places that residents of Sherwood were employed in, 2011.

Location	Number	Percent
Counties		
Washington	3,616	49%
Multnomah	1,803	24%
Clackamas	1,147	16%
Yamhill	338	5%
Maion	330	4%
Clark	71	1%
Polk	13	0%
Columbia	12	0%
All other counties	54	1%
Cities		
Portland	1,686	23%
Tigard	660	9%
Sherwood	658	9%
Beaverton	575	8%
Tualatin	575	8%
All other cities	3,230	44%
Total	7,384	100%

Source: U.S. Census Bureau: LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

Table B- 12 shows where employees of firms located Sherwood lived in 2011. More than 80% of people who worked in Sherwood commuted from outside the city.

Table B- 12. Places where workers in Sherwood lived in 2011

Location	Number	Percent
Counties		
Washington	2,013	47%
Clackamas	602	14%
Multnomah	467	11%
Yamhill	460	11%
Marion	224	5%
Clark	76	2%
Linn	52	1%
Lane	46	1%
Polk	44	1%
All other counties	296	7%
Cities		
Sherwood	658	15%
Portland	371	9%
Tigard	233	5%
Beaverton	224	5%
Newberg	207	5%
All other cities	2,587	60%
Total	4,280	100%

Source: U.S. Census Bureau: LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

MANUFACTURED HOMES

Manufactured homes are and will be an important source of affordable housing in Sherwood. They provide a form of homeownership that can be made available to low- and moderate-income households. Cities are required to plan for manufactured homes—both on lots and in parks (ORS 197.475-492).

Generally, manufactured homes in parks are owned by the occupants who pay rent for the space. Monthly housing costs are typically lower for a homeowner in a manufactured home park for several reasons, including the fact that property taxes levied on the value of the land are paid by the property owner rather than the manufactured homeowner. The value of the manufactured home generally does not appreciate in the way a conventional home would, however. Manufactured homeowners in parks are also subject to the mercy of the property owner in terms of rent rates and increases. It is generally not within the means of a manufactured homeowner to relocate a manufactured home to escape rent increases. Living in a park is desirable to some because it can provide a more secure community with on-site managers and amenities, such as laundry and recreation facilities.

Sherwood had 258 manufactured homes in 2000 and 155 manufactured homes in the 2009-2013 period, a decrease of 103 dwellings. According to Census data, roughly 83% of the manufactured homes in Sherwood were owner-occupied in the 2009-2013 period.

OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential development. Table B- 13 presents the inventory of mobile and manufactured home parks within Sherwood in 2014. The results show that Sherwood had 4 manufactured home parks with 186 spaces and 1 vacant space.

Table B- 13. Inventory of Mobile/Manufactured Home Parks, City of Sherwood, 2014

Name	Location	Park Type	Total Spaces	Vacant Spaces
Carriage Park Estates	23077 SW Main St	Family	58	0
Crown Court	27300 SW Pacific Hwy	Family	14	1
Orland Villa	22200 SW Orland Street	Family	24	0
Smith Farm Estates	17197-17180 SW Smith Ave	Family	90	0
Total			186	1

Source: Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>.

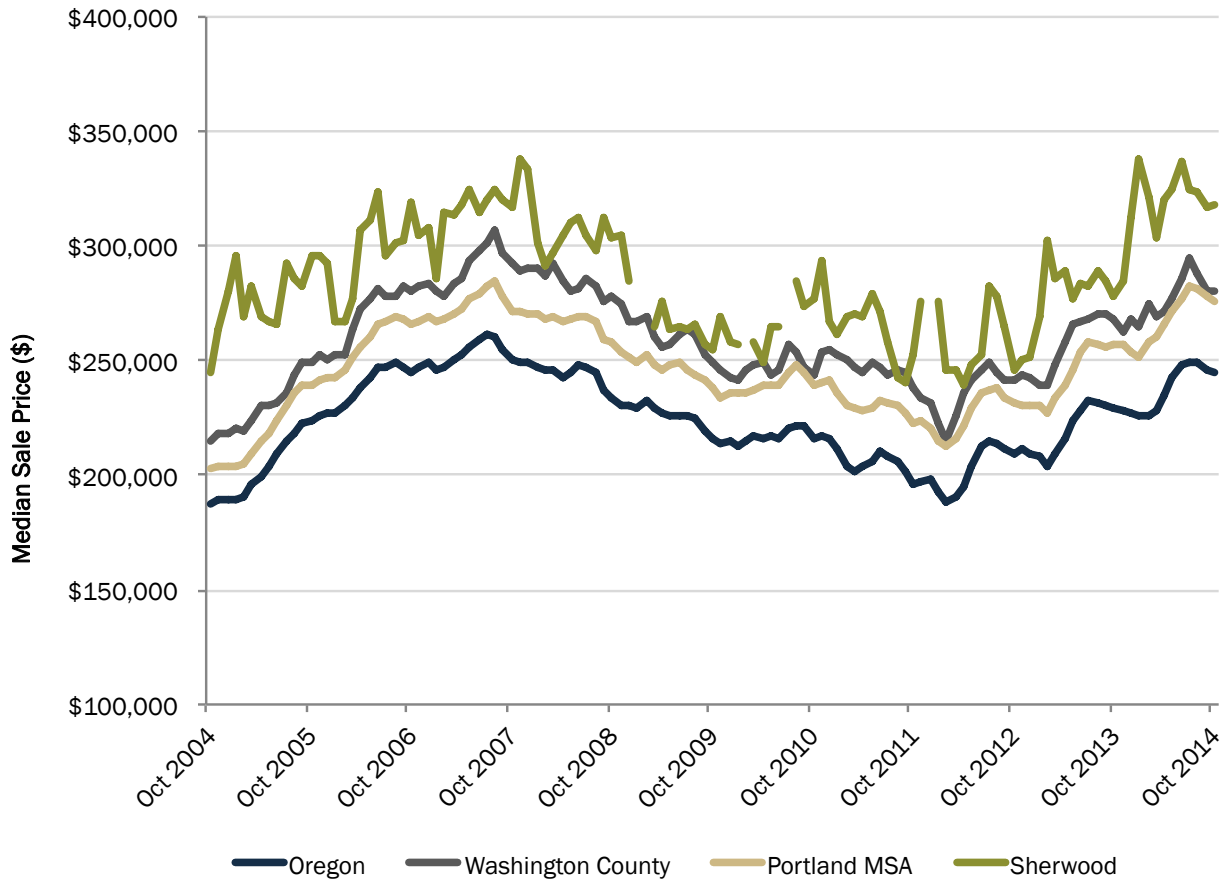
Changes in housing cost

According to Zillow, the median sales price of a home in Sherwood increased by about 30% between 2004 and 2014. Housing prices rose steeply prior to 2007, reaching a high of roughly \$338,000, before the housing bubble and recession led to a period of declining housing prices. Housing prices in Sherwood, while following the same general pattern, remain higher than those observed in other parts of the region and the State as a whole.

Housing values

Figure B- 13 shows the median sales price in Oregon, the Portland MSA, Washington County, and Sherwood between 2004-2014. As of January 2015, median sales prices in Sherwood were \$331,300, higher than in Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$241,400).

Figure B- 13. Median Sales Price, Oregon, Portland MSA, Washington County and Sherwood, 2004-2014

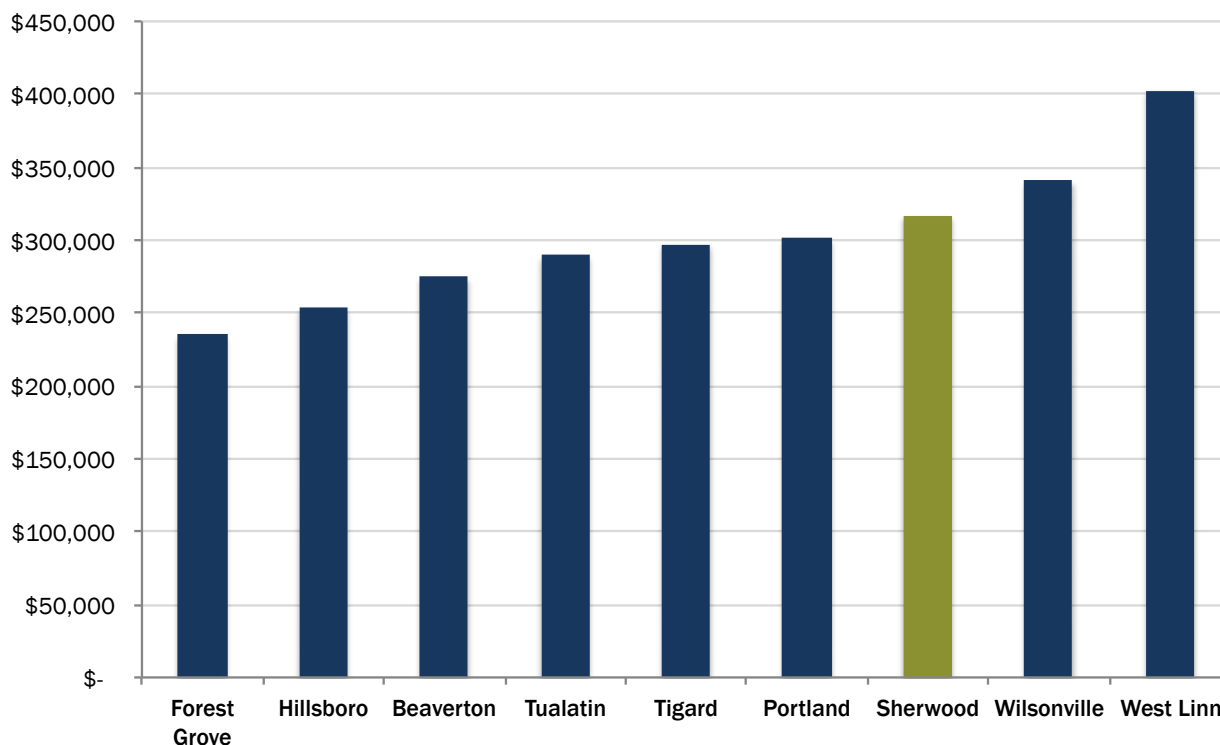


Source: Zillow Real Estate Research.

Note: Gaps in Sherwood's median sales price occur where data was not available.

Figure B- 14 shows median home sales prices for Sherwood and regional cities in January 2015. In that month, median home sale prices in Sherwood were about \$316,500, above sales prices in other Portland westside communities such as Tigard, Tualatin, and Beaverton. Median sales prices in Wilsonville and West Linn were higher than those in Sherwood.

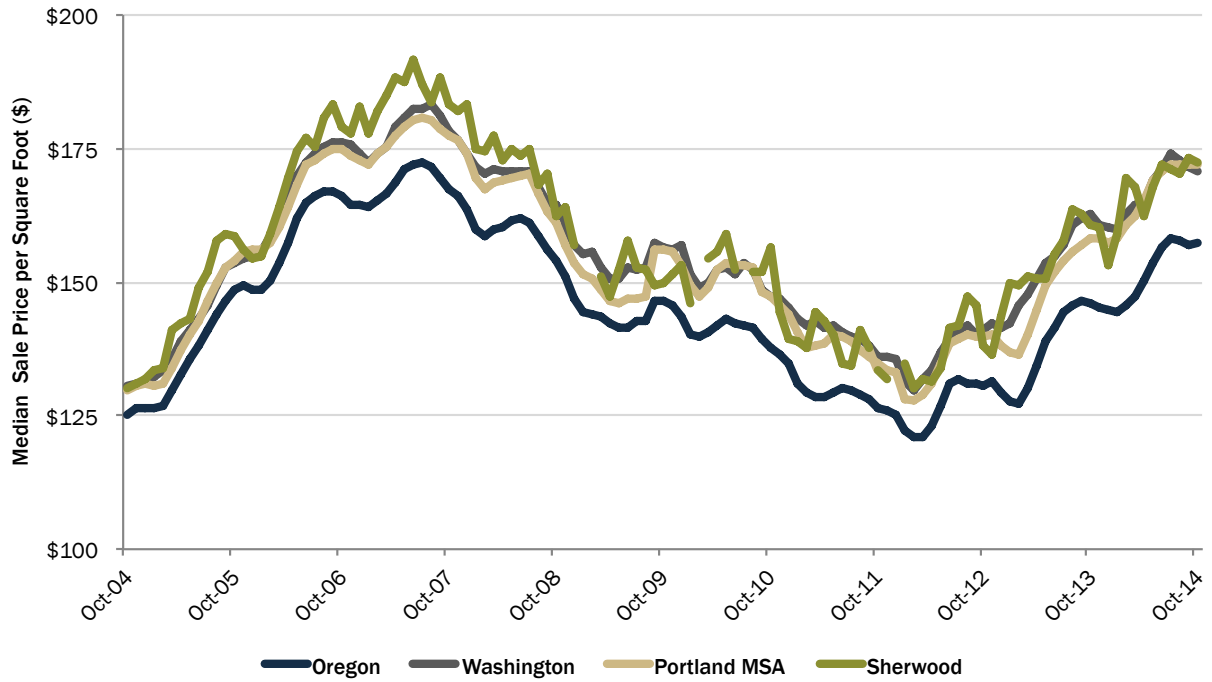
Figure B- 14. Median Home Sales Price, Sherwood, Tualatin, Tigard, Beaverton, Hillsboro, Forest Grove, Portland, January 2015



Source: Zillow Real Estate Research.

Figure B- 15 shows median home sales price per square foot for Oregon, the Portland MSA, Washington County and Sherwood from 2004-2013. Prices per square foot rose in Sherwood from \$130 per square foot in October 2004 to \$192 in July 2007. Prices fell after 2007 and rose again starting in 2011. In October 2014, the median price per square foot in Sherwood was about \$170 dollars, comparable to the price in Washington County and the Portland Region (both about \$170) and above that of the state as a whole (\$157 per square foot).

Figure B- 15. Median Sales Price per Square Foot, Oregon, Portland MSA, Washington County and Sherwood, 2004-2014

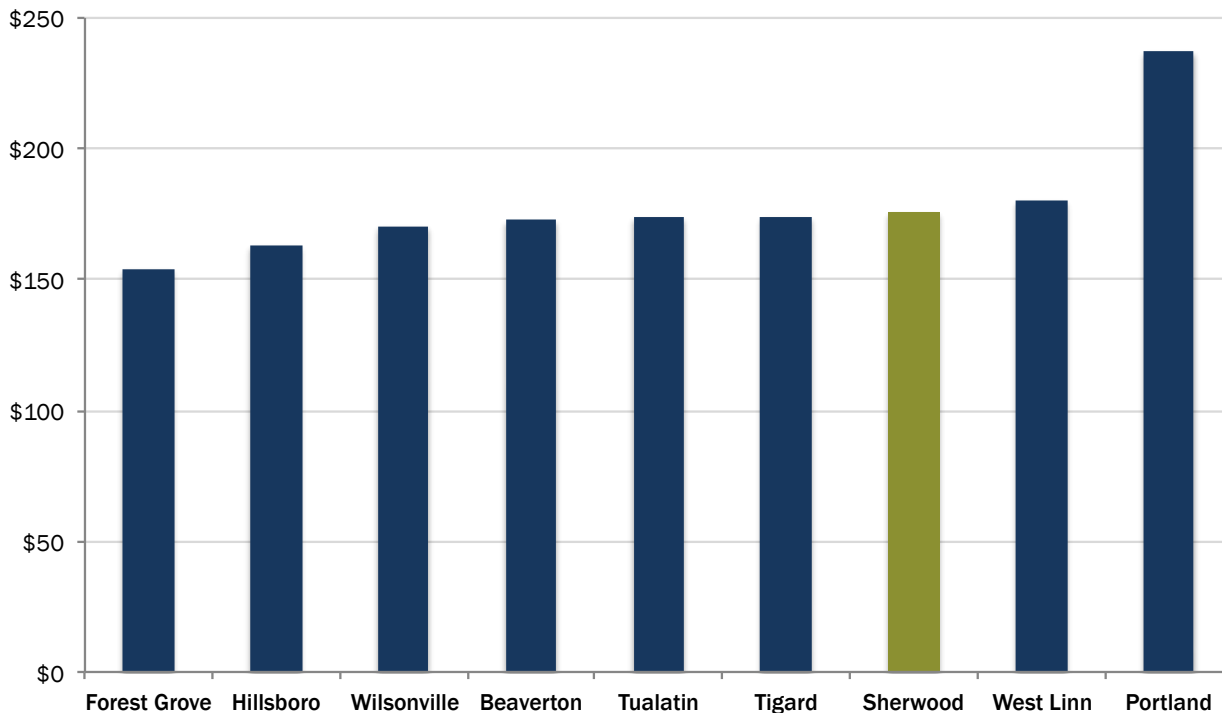


Source: Zillow Real Estate Research.

Note: Gaps in Sherwood's median sales price occur where data was not available.

Figure B- 16 shows median home sales price per square foot for Sherwood and regional cities in January 2015. Of the cities sampled, Sherwood had the third-highest price per square foot, at \$176 per square foot. Prices per square foot in West Linn and Portland were higher, at \$180 and \$237 respectively. While Sherwood's prices were the third highest, they compared very closely to other cities such as Tigard (\$174), Tualatin (\$174), Beaverton (\$173), and Wilsonville (\$171).

Figure B- 16. Median Sales Price Per Square Foot, Forest Grove, Hillsboro, Wilsonville, Beaverton, Tualatin, Tigard, Sherwood, West Linn, and Portland, January 2015.



Source: Zillow Real Estate Research.

Housing rental costs

Table B- 14 shows the median contract rent in Oregon, Multnomah, Washington, and Clackamas counties, and Sherwood, in 2000 and 2009-2013. The median contract in Sherwood in 2009-2013 was \$212 above the median in Washington County.

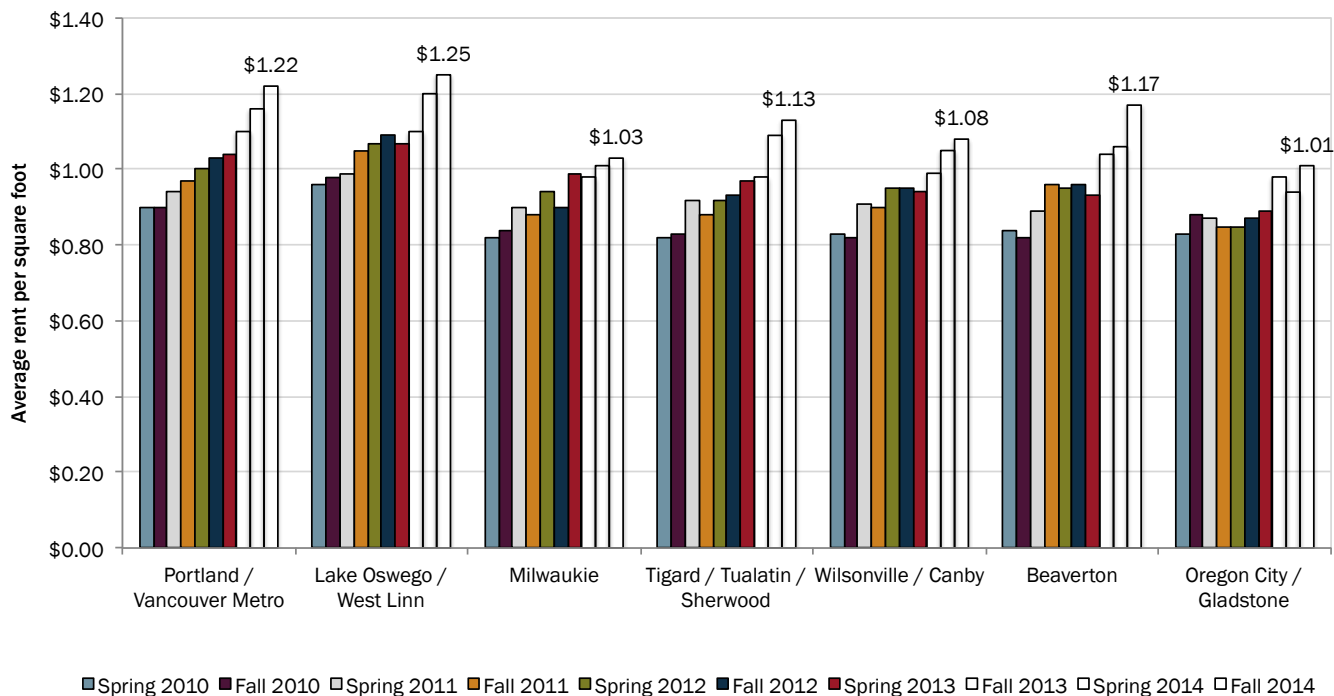
Table B- 14. Median contract rent, inflation-adjusted dollars, Oregon, Multnomah Washington, and Clackamas Counties, and Sherwood, 2000 to 2009-2013

Location	Rent		Change 2000 to 2009-2013	
	2000	2009-2013	Amount	Percent
Oregon	\$741	\$749	\$8	1%
Multnomah County	\$771	\$799	\$28	4%
Washington County	\$878	\$852	-\$26	-3%
Clackamas County	\$853	\$858	\$5	1%
Sherwood	\$880	\$1,064	\$184	21%

Source: U.S. Census 2000 SF3 Table H56, American Community Survey 2012 Table B25058
 Note: All data reported in 2013 dollars; 2000 figures were updated using Consumer Price Index.

Figure B- 17 shows average rent per square foot for apartments in the Portland/Vancouver Metro region and selected submarkets, according to Multifamily NW data between 2010 and 2014. Average rent in the Tigard/Tualatin/Sherwood area submarket was \$1.13 per square foot in Fall 2014, lower than the regional average of \$1.22 per square foot. Between Spring 2010 and Spring 2013, average rent in Tigard/Tualatin/Sherwood area increased by 38%, consistent with the regional increase of 36%.

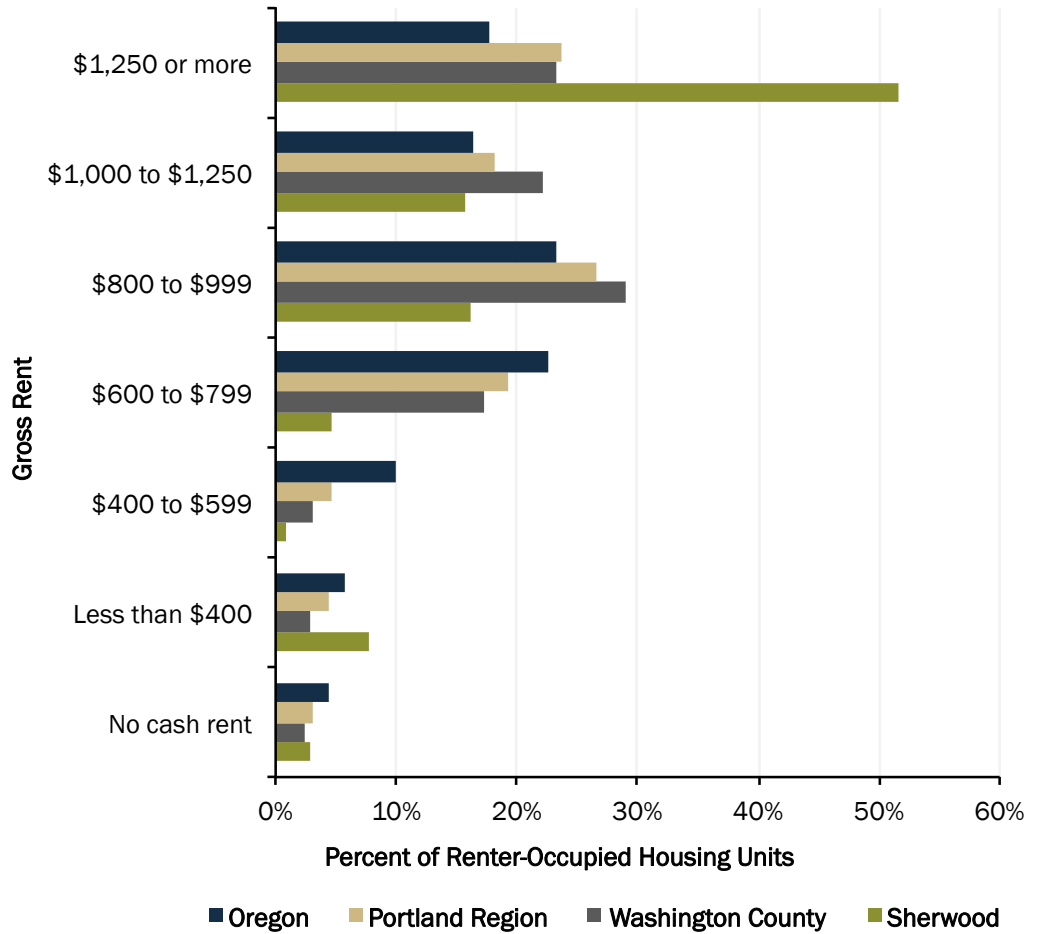
Figure B- 17. Average rent per square foot, Portland/Vancouver Metro and selected submarkets, 2010-2014



Source: Multifamily NW Apartment Reports, Spring 2010 through Fall 2014.
 Note: The average rent price shown on the graph is for Fall 2014

Figure B- 18 shows a comparison of gross rent for renter-occupied housing units in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013.⁴⁹

Figure B- 18. Gross rent, renter occupied housing units, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Table B25063.

⁴⁹ The U.S. Census defines gross rent as: “the amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else).”

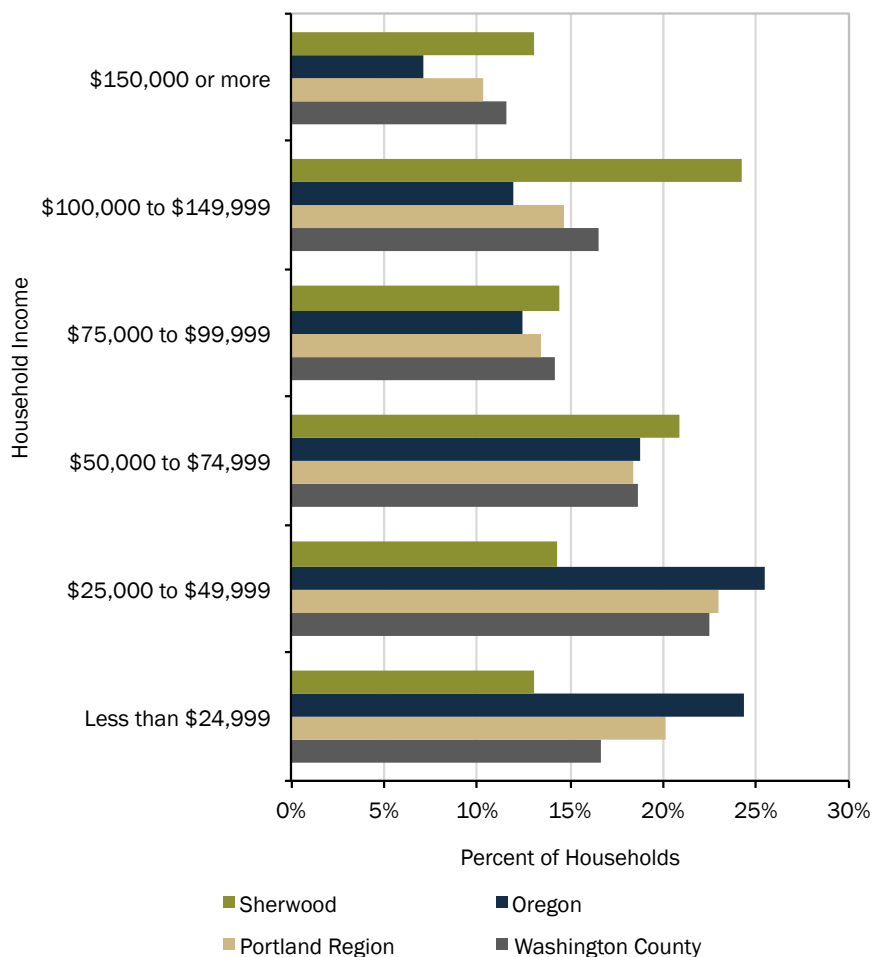
INCOME AND AFFORDABILITY OF HOUSING

This section summarizes regional and local income and housing cost trends. Income is a key determinant in housing choice and a households’ ability to afford housing. A review of historical income and housing price trends provides insight into the local and regional housing markets.

The median household income in Sherwood was higher than in nearby counties and the state as a whole in the 2009-2013 period. Median household income in Sherwood was about \$78,400, compared to \$64,200 in Washington County, \$64,400 in Clackamas County, and \$52,500 in Multnomah County. Statewide, the median income was about \$50,300.

Figure B- 19 shows the distribution of household income in Oregon, the Portland Region, and Sherwood in the 2009-2013 period. Sherwood had the highest share of households earning over \$100,000 and the lowest share of households earning less than \$25,000.

Figure B- 19. Household Income, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Table B19001.

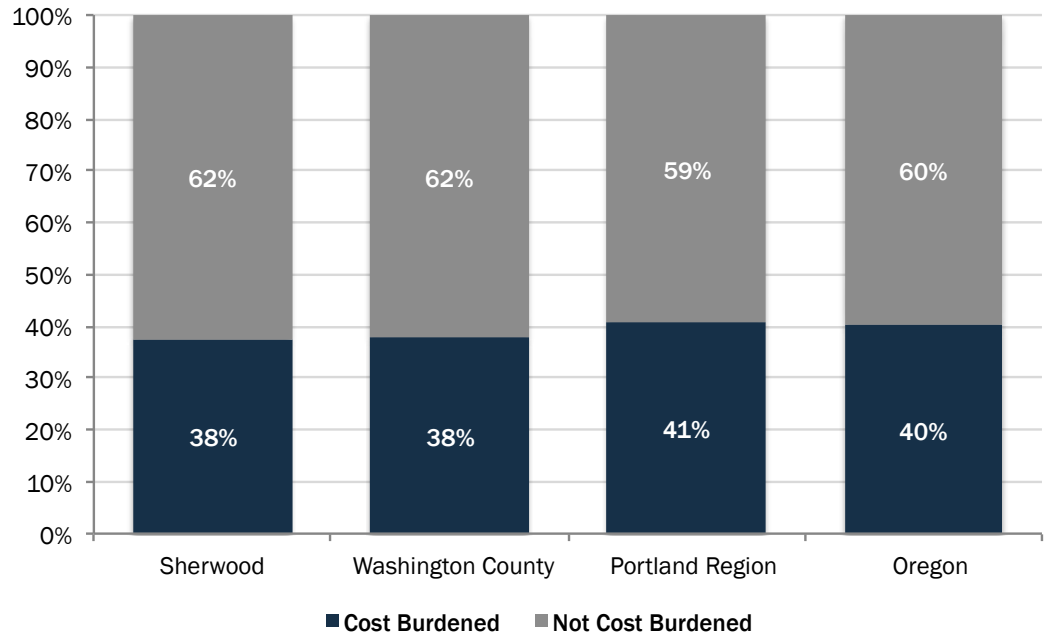
A typical standard used to determine housing affordability is that a household should pay no more than a certain percentage of household income for housing, including payments and interest or rent, utilities, and insurance.⁵⁰ HUD guidelines indicate that households paying more than 30% of their income on housing experience “cost burden,” and households paying more than 50% of their income on housing experience “severe cost burden.” Using cost burden as an indicator of housing affordability is consistent with the Goal 10 requirement to provide housing that is affordable to all households in a community.

According to the U.S. Census, nearly 2,345 households in Sherwood—or 38%—paid more than 30% of their income for housing expenses in the 2009-2013 period. About 44% of renter households in Sherwood were cost burdened, compared with 35% of owner households. In comparison, 40% of Oregon’s households were cost burdened in the 2009-2013 period, with 54% of renter households and 32% of owner households cost burdened.

⁵⁰ Cost burden for renters accounts for the following housing costs: monthly rent, utilities (electricity, gas, and water and sewer), and fuels (wood, oil, etc.). Cost burden for homeowners accounts for the following housing costs: mortgage payments, real estate taxes, insurance, mobile home costs, condominium fees, utilities, and fuels.

Figure B- 20 shows the percentage of the population experiencing housing cost burdens in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013.

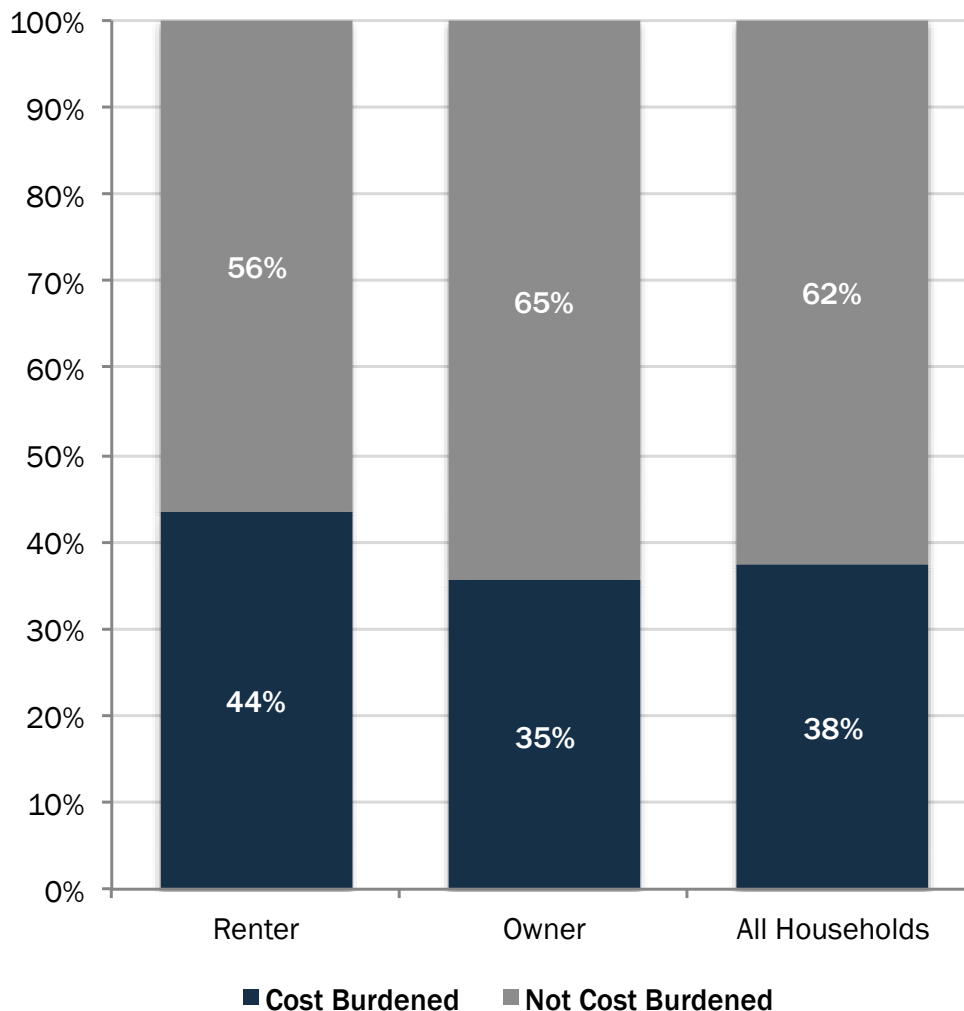
Figure B- 20. Housing cost burden, Oregon, Portland Region, Washington County and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Tables B25070 and B25091.
Note: Households which the Census classifies as "Not computed" were excluded from the above calculations.

Figure B- 21 shows housing cost burden, by tenure, for Sherwood households in 2009-2013. Forty-four percent of Sherwood’s renter households are cost burdened, compared to 49% of renter households in Washington County. Thirty-five percent of owner households are cost burdened, compared to 31% of owner households in Washington County.

Figure B- 21. Housing cost burden by tenure, Sherwood, 2009-2013.



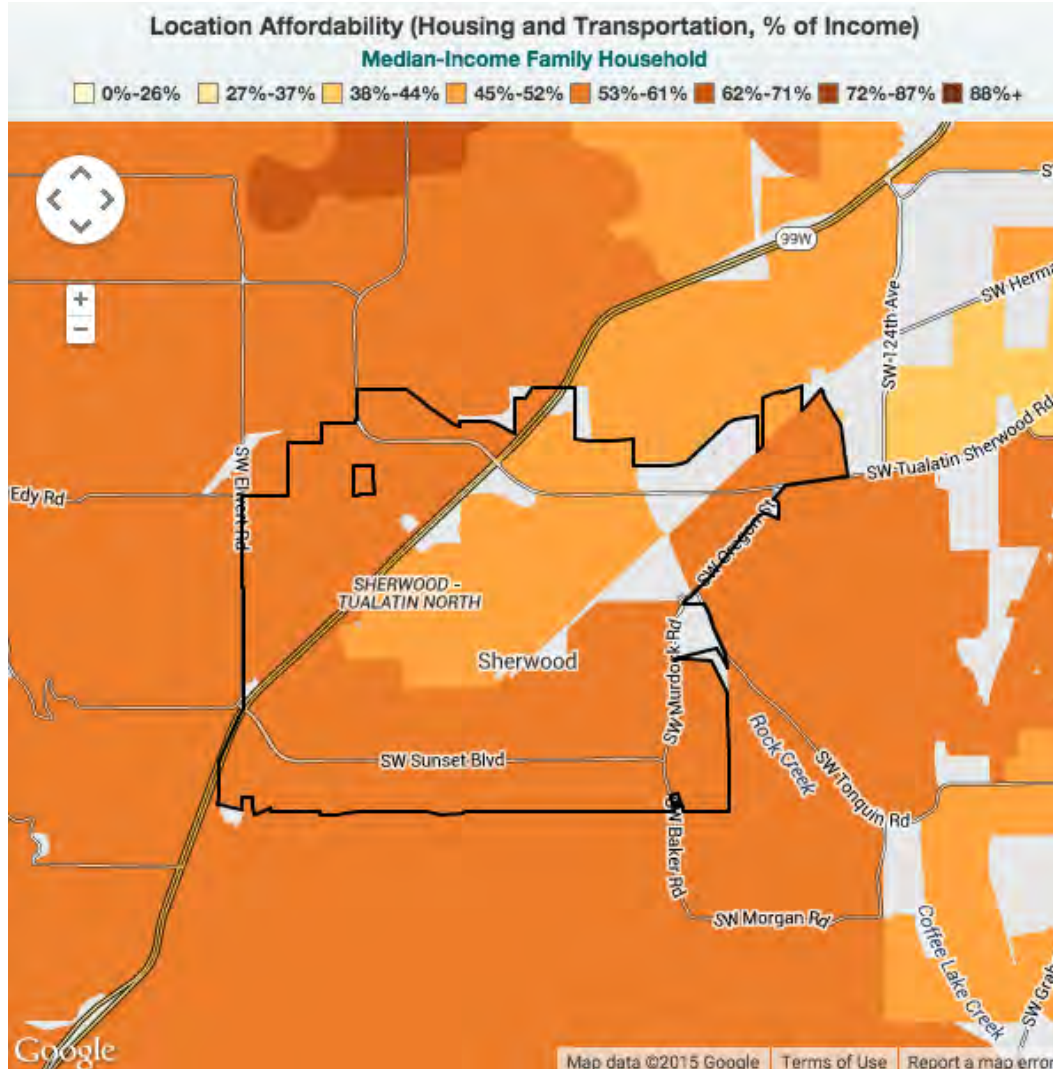
Source: American Community Survey 2009-2013 Tables B25070 and B25091.

Another way to measure cost burden is to consider the costs of housing combined with the costs of transportation. In the *Draft 2014 Urban Growth Report*, Metro considered this perspective on cost burden. Metro considered a household that spends 45% or more of its income on transportation and housing as cost burdened.

According to data from the Location Affordability Portal, from HUD and the U.S. Department of Transportation, the average household in Sherwood spends 54% of its income on housing costs and transportation costs. Figure B- 22 and Figure

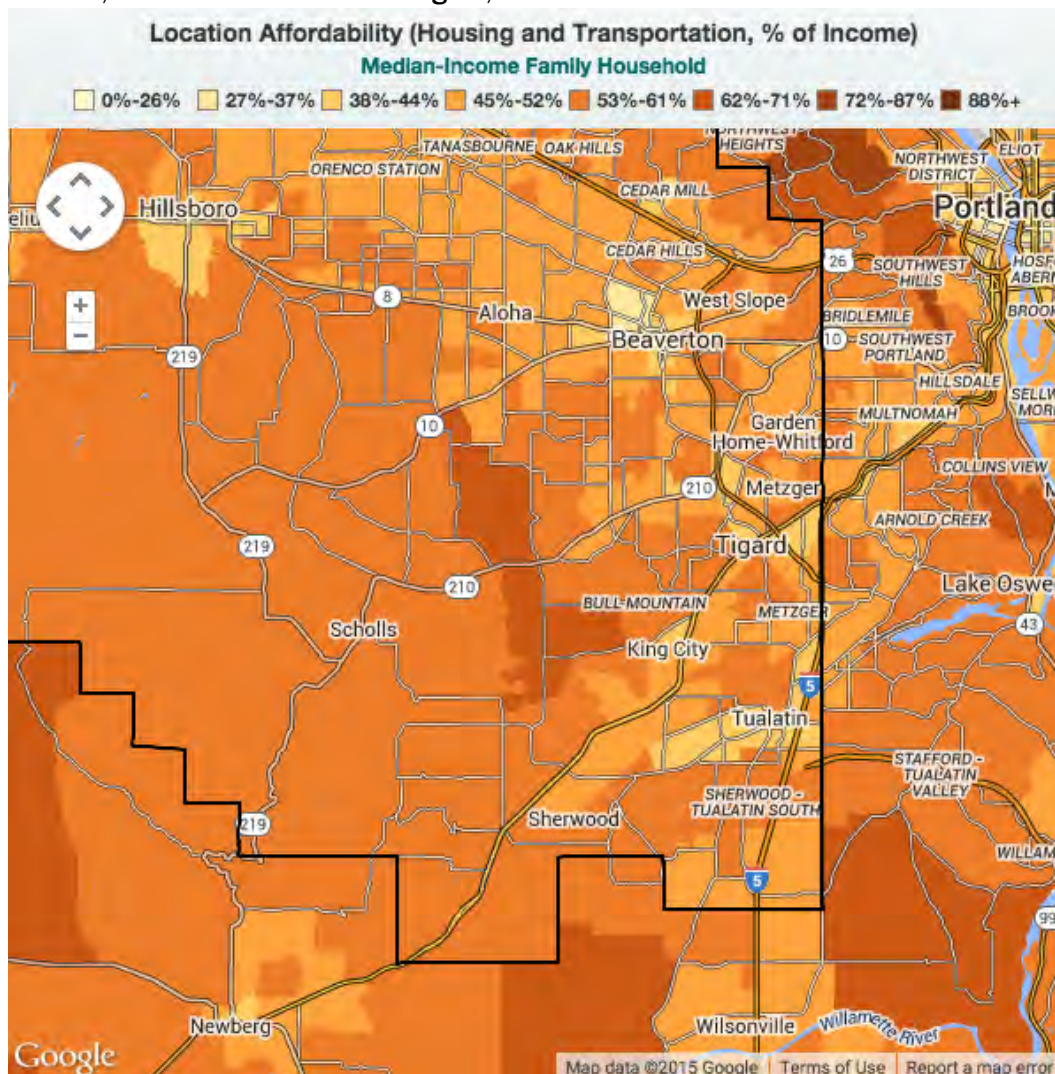
B- 23 show the percentage of income spent on housing and transportation costs in Sherwood and the southwestern part of the Portland region. In comparison to cities such as Tualatin, Wilsonville, and Tigard, households in Sherwood pay a slightly larger percentage of their income on housing and transportation costs. On average, households in these cities pay 50% to 52% of their income on housing and transportation costs.

Figure B- 22. Housing and transportation costs as a percentage of median family income, Sherwood, 2014



Source: HUD and US DOT's Location Affordability Portal
<http://locationaffordability.info/>

Figure B- 23. Housing and transportation costs as a percentage of median family income, southwestern Portland region, 2014



While cost burden is a common measure of housing affordability, it does have some limitations. Two important limitations are:

- A household is defined as cost burdened if the housing costs exceed 30% of their income, regardless of actual income. The remaining 70% of income is expected to be spent on non-discretionary expenses, such as food or medical care, and on discretionary expenses. Households with higher income may be able to pay more than 30% of their income on housing without impacting the household's ability to pay for necessary non-discretionary expenses.
- Cost burden compares income to housing costs and does not account for accumulated wealth. As a result, the estimate of how much a household can afford to pay for housing does not include the impact of accumulated

wealth on a household's ability to pay for housing. For example, a household with retired people may have relatively low income but may have accumulated assets (such as profits from selling another house) that allow them to purchase a house that would be considered unaffordable to them based on the cost burden indicator.

Cost burden is only one indicator of housing affordability. Another way of exploring the issue of financial need is to review wage rates and housing affordability. Table B- 15 shows an illustration of affordable housing wage and rent gap for households in the Portland MSA at different percentages of median family income (MFI). The data are for a typical family of four. The results indicate that a household must earn \$17.73 an hour to afford a two-bedroom unit according to HUD's market rate rent estimate.

Table B- 15. Affordable Housing Wage Gap, Portland MSA, 2014

Value	Minimum Wage	30% MFI	50% MFI	80% MFI	100% MFI	120% MFI
Annual Hours	2,080	2,080	2,080	2,080	2,080	2,080
Derived Hourly Wage	\$9.10	\$10.01	\$16.68	\$26.69	\$33.37	\$40.04
Annual Wage	\$18,928	\$20,820	\$34,700	\$55,520	\$69,400	\$83,280
Annual Affordable Rent	\$5,678	\$6,246	\$10,410	\$16,656	\$20,820	\$24,984
Monthly Affordable Rent	\$473	\$521	\$868	\$1,388	\$1,735	\$2,082
HUD Fair Market Rent (2 Bedroom)	\$922	\$922	\$922	\$922	\$922	\$922
Is HUD Fair Market Rent Higher Than The Monthly Affordable Rent?	Yes	Yes	Yes	No	No	No
Rent Paid Monthly OVER 30% of Income	\$449	\$402	na	na	na	na
Rent Paid Annually OVER 30% of Income	\$5,386	\$4,818	na	na	na	na
Percentage of Income Paid OVER 30% of Income for Rent	28%	23%	na	na	na	na
Percentage of Income Spent on Housing	58%	53%	32%	20%	16%	13%
For this area what would the "Affordable Housing Wage" be?	\$17.73	\$17.73	\$17.73	\$17.73	\$17.73	\$17.73
The Affordable Housing Wage Gap IS:	\$8.63	\$7.72	\$1.05	na	na	na

Source: FMR comes from HUD's FY 2014 Two-Bedroom FMR for Portland-Vancouver-Hillsboro MSA. Minimum wage from Oregon's Bureau of Labor and Industries. MFI from HUD's FY 2014 MFI for Portland- Vancouver -Hillsboro MSA.

Table B- 16 shows a rough estimate of affordable housing cost and units by income levels for Sherwood in 2014 based on Census data about household income, the value of owner-occupied housing in Sherwood, and rental costs in Sherwood. Several points should be kept in mind when interpreting this data:

- Affordable monthly housing costs and estimate of affordable purchase prices are based on HUD income standards and assume that a household will not spend more than 30% of household income on housing costs. Some households pay more than 30% of household income on housing costs, generally because they are unable to find more affordable housing or because wealthier households are able to pay a larger share of income for housing costs.
- HUD's affordability guidelines for Fair Market Rent are based on median family income and provide a rough estimate of financial need. These guidelines may mask other barriers to affordable housing such as move-in costs, competition for housing from higher-income households, and availability of suitable units. They also ignore other important

factors such as accumulated assets, purchasing housing as an investment, and the effect of down payments and interest rates on housing affordability.

- Households compete for housing in the marketplace. In other words, affordable housing units are not necessarily *available* to low-income households. For example, if an area has a total of 50 dwelling units that are affordable to households earning 30% of median family income, 50% of those units may already be occupied by households that earn more than 30% of median family income.

The data in Table B- 16 indicate that in 2014:

- About 20% of households in Sherwood could not afford a two-bedroom apartment at HUD's fair market rent level of \$922.
- A household earning median family income (\$69,400) could afford a home valued up to about \$173,500.
- Sherwood has a deficit of about 660 dwellings to households earning less than \$35,000 (or 50% of the Portland metropolitan area's median family income).

Table B- 16. Rough estimates of housing affordability, Sherwood, 2009-2013

Income Level	Number of HH	Percent	Affordable Monthly Housing Cost	Crude Estimate of Affordable Purchase Owner-Occupied Unit	Est. Number of Owner Units	Est. Number of Renter Units	Surplus (Deficit)	HUD Fair Market Rent (FMR) in 2014
Less than \$10,000	186	3%	\$0 to \$250	\$0 to \$25,000	44	60	(82)	
\$10,000 to \$14,999	280	4%	\$250 to \$375	\$25,000 to \$37,000	40	69	(171)	
\$15,000 to \$24,999	364	6%	\$375 to \$625	\$37,500 to \$62,500	35	36	(293)	
\$25,000 to \$34,999	298	5%	\$625 to \$875	\$62,500 to \$87,500	71	111	(116)	Studio: \$666
\$35,000 to \$49,999	618	10%	\$875 to \$1,250	\$87,500 to \$125,000	77	510	(31)	1 bdrm: \$774
\$50,000 to \$74,999	1,333	21%	\$1,250 to \$1,875	\$125,000 to \$187,500	360	678	(295)	2 bdrm: \$922
Portland MSA 2014 MFI: \$69,400			\$1,735	\$173,500				3 bdrm: \$1,359
\$75,000 to \$99,999	922	14%	\$1,875 to \$2,450	\$187,500 to \$245,000	748	172	(2)	4 bdrm: \$1,633
\$100,000 to \$149,999	1,543	24%	\$2,450 to \$3,750	\$245,000 to \$375,000	2,172	23	652	
\$150,000 or more	836	13%	More than \$3,750	More than \$375,000	1,151	23	338	
Total	6,380	100%			4,698	1,682	0	

Source: FMR comes from HUD's FY 2014 Two-Bedroom FMR for Portland-Vancouver-Hillsboro MSA. Minimum wage from Oregon's Bureau of Labor and Industries. MFI from HUD's FY 2014 MFI for Portland-Vancouver-Hillsboro MSA; Data about the share of owner and renter households and their income in Sherwood comes from the American Community Survey, 2009-2013 Tables B25075, B25063, B19001.

Table B- 17 shows that between 2000 and 2009-2013, both median household income and housing values increased substantially, with increases in home value outpacing growth in income. Median household income increased between 2000 and the 2009-2013 period.

Housing in Sherwood has become less affordable since 2000, consistent with county and statewide trends. In 2009-2013, the median home value was 3.8 times the median household income in Sherwood, up from 2.9 in 2000.

Housing in Sherwood is relatively affordable, compared to the county and state. In 2009-2013, the median home value was 4.4 times the median household income in Washington County, with a statewide average of 4.7.

Table B- 17. Household income to home value, 2013 dollars, Oregon, Washington County, and Sherwood, 2000 and 2009-2013.

	2000	2009-2013	Change 2000 to 2013	
			Number	Percent
Oregon				
Median HH Income	\$57,282	\$50,229	-\$7,053	-12%
Median Owner Value	\$204,120	\$238,000	\$33,880	17%
Ratio of Home Value to Income	3.56	4.74	1.17	33%
Washington County				
Median HH Income	\$72,971	\$64,180	-\$8,791	-12%
Median Owner Value	\$252,560	\$282,400	\$29,840	12%
Ratio of Home Value to Income	3.46	4.40	0.94	27%
Sherwood				
Median HH Income	\$87,525	\$78,355	-\$9,170	-10%
Median Owner Value	\$254,100	\$300,300	\$46,200	18%
Ratio of Home Value to Income	2.90	3.83	0.93	32%

Source: Census 2000 SF1 P53 P77 P82 P87, SF3 H7 H63 H76, American Community Survey 2009-2013 DP03, B25003, B25064, B25077.

PA 18-01 Housing Needs Analysis and Comprehensive Plan Text Amendment

Supplemental report from the Planning Commission

The recommendation for approval is based on an understanding that this report is based on assumptions, projections, and trends from the consultant that have not been vetted publicly. It is important to understand that when the community begins the Goal 1 conversation and development of the housing goals and policies public input may result in modifications to this analysis.

It is understood that the available land is limited but the planning commission would recommend a mix of zoned lands that match historical trends to maintain the quality of life and keep Sherwood feeling and looking like Sherwood. The Housing Needs Analysis makes assertions that HDR and MDRH are the zones we need to increase but in looking at available acres LDR and MDRL are the zones with the least availability based on historical trends.

The recommendation is also based on the understanding that this Housing Needs Analysis does not bind the City into any policy or action. Until the report has gone through the community visioning process which includes housing policies and goals, future land use actions and policy decisions will not rely solely on the information in the report.

Of great concern are increased density recommendations throughout the report, both in the zoning and the development code, that conflict with the findings of the report and have the potential to change Sherwood. It is important to remember that Sherwood's existing development code and overall mix of zoning have met requirements and resulted in densities 30% higher than required.

Page 38: The conclusion of the housing need[s] analysis is that Sherwood's historical densities meet Sherwood's future housing needs.

Page 40: Sherwood is able to meet state requirements. This includes the obligation to designate land in a way that 50% of new housing could be either multifamily or single-family attached and achieve an average density of six dwelling units per acre.

Page 40: Sherwood is meeting its obligation to plan for needed housing types for households at all income levels. This includes development of a range of housing types and that allow for government-subsidized housing.

The report doesn't discuss impacts that greater density has on the community at large and should be considered as we move into Phase II of the analysis which is the housing policy development.

On page 27 in Table 2, we are concerned about the distribution of the needed housing mix identifying for a mix of 40% multifamily and 10% single family attached. It is our expectation and recommendation that this distribution be discussed and evaluated in further detail in Phase II of the analysis which is the housing policy development.

Finally the recommendation for approval includes the removal of recommendations in the document which the Commission believes to be subjective and not purely fact based.



ORDINANCE 2018-004

ADOPTING THE HOUSING NEEDS ANALYSIS FOR THE 2018 TO 2038 PLANNING PERIOD AND A TEXT AMENDMENT TO THE SHERWOOD COMPREHENSIVE PLAN, PART 2 SHERWOOD DEVELOPMENT PLAN

WHEREAS, the City of Sherwood intends to submit a proposal to expand the urban growth boundary to Metro for the 2018 Urban Growth Management Decision; and

WHEREAS, Metro requires entities submitting proposals for the 2018 Urban Growth Management Decision to have an acknowledged Housing Needs Analysis within the past 5 years; and

WHEREAS, the Department of Land Conservation and Land Development requires jurisdictions to process a post acknowledgement plan amendment to their Comprehensive Plan to receive acknowledgement of a Housing Needs Analysis; and

WHEREAS, the existing Comprehensive Plan (Part 2) was approved by Ordinance 91-922, and outlines a system-wide land use policy consistent with Statewide Planning Goals; and

WHEREAS, the City of Sherwood prepared Housing Needs Analysis to reflect the 2018-2038 time period; and

WHEREAS, the City of Sherwood prepared an amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan to include the Housing Needs Analysis for 2018-2038 as Exhibit A; and

WHEREAS, the City of Sherwood provided public hearing notice in accordance with Chapter 16.72.020 of the Sherwood Zoning and Community Development Code; and

WHEREAS, the City of Sherwood Planning Commission held a public hearing on February 13, 2018 and February 27, 2018 to discuss and take public testimony on the Housing Needs proposed amendments; and

WHEREAS, the City Council having conducted public hearings on the Housing Needs Analysis for 2018-2038 and the proposed comprehensive plan text amendment on March 20, 2018, April 3, 2018 and duly considering the entire record, herein finds that the proposed amendment to the Comprehensive Plan (Part 2) is in the best interest of the community for providing consistency with the city's land use plan and adopted plans of state, local and regional jurisdictions.

NOW, THEREFORE, THE CITY OF SHERWOOD ORDAINS AS FOLLOWS:

Section 1. The City hereby adopts the Housing Needs Analysis for the 2018-2038 planning period, hereto as Exhibit A incorporated herein.

Section 2. The City hereby adopts the text amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan to include the Housing Needs Analysis for 2018-2038 as Exhibit A., hereto as Exhibit B incorporated herein.

Section 3. After full and due consideration of the staff reports and findings of fact, the Council finds that the Housing Needs Analysis for 2018-2038 and comprehensive plan text amendment are consistent with applicable local, regional, and state requirements and the Staff Report/Findings of Fact, hereto as Exhibit C incorporated herein.

Section 3. This Ordinance shall become effective 30 days from its adoption.

Duly passed by the City Council this 3rd of April, 2018.

Lee Weislogel, Mayor

Date

Attest:

Sylvia Murphy, MMC, City Recorder

	<u>AYE</u>	<u>NAY</u>
Rosener	_____	_____
Griffin	_____	_____
Brouse	_____	_____
Young	_____	_____
Kuiper	_____	_____
Garland	_____	_____
Weislogel	_____	_____

Sherwood Housing Needs Analysis 2018 to 2038

Prepared for:

City of Sherwood

December 2017

ECONorthwest
ECONOMICS • FINANCE • PLANNING

Contact Information

Beth Goodman and Robert Parker, AICP, prepared this report as a subcontractor to Cogan Owens Greene for the City of Sherwood. ECONorthwest is solely responsible for its content, any errors or omissions.

ECONorthwest specializes in economics, planning, and finance. Established in 1974, ECONorthwest has over three decades of experience helping clients make sound decisions based on rigorous economic, planning, and financial analysis.

For more information about this report, please contact:

Erika Palmer, Planning Manager
22560 SW Pine Street
Sherwood, Oregon 97140
503-625-4208
PalmerE@SherwoodOregon.gov

Acknowledgements

Cogan Owens Greene, ECONorthwest and the City of Sherwood thank the many people who helped to develop the Sherwood Draft Housing Needs Analysis.

Regional Partners

Brian Harper, Metro

State of Oregon

Anne Debbaut, Regional Representative, DLCD

Gordon Howard, Urban Planning Specialist, DLCD

City of Sherwood

Julia Hajduk, Community Development Director

Erika Palmer, Planning Manager

Carrie Brennecke AICP, Senior Planner

Brad Kilby AICP, (former) Planning Manager

Connie Randall, (former) Planning Manager

Michelle Miller AICP, (former) Senior Planner

Table of Contents

Executive Summary	i
How has Sherwood’s Population Changed in Recent Years?	i
What Factors May Affect Future Growth in Sherwood?	ii
What Are the Characteristics of Sherwood’s Housing Market?	iii
How Much Housing Growth is Forecast, and Can that Growth be Accommodated within Sherwood?	v
What if Sherwood Grows Faster?.....	v
What are the Implications for Sherwood’s Housing Policies? ..	Error! Bookmark not defined.
1 Introduction	1
Background	1
Organization of the Report	2
Framework for a Housing Needs Analysis	3
Oregon housing policy	4
2 Historical and Recent Development Trends	8
3 Housing Need in Sherwood	12
Projection of New Housing Units Needed in the Next 20 Years....	13
Demographic and Socioeconomic Factors Affecting Housing Choice.....	14
Regional and Local Trends in Housing Costs and Affordability....	24
Forecast of Housing by Type and Density of Housing.....	27
4 Residential Land Sufficiency	32
Residential Buildable Land	32
Residential Development Capacity	35
Residential Land Sufficiency	39
Potential growth in Sherwood West.....	40
Conclusions and Recommendations	41
Appendix A. Appendix A. Residential Buildable Lands Inventory	1
Methodology.....	1
Results of the Buildable Lands Inventory	5
Appendix B. Trends Affecting Housing Need in Sherwood	1
Historical and Recent Development Trends.....	1
National Housing Trends	11
State Demographic Trends.....	23
Regional and Local Demographic Trends.....	24
Manufactured Homes.....	35

Income and Affordability of Housing.....42

This page intentionally left blank.

Executive Summary

This is an executive summary of the findings of the Sherwood Housing Needs Analysis for the 2018 to 2038 period. The housing needs analysis provides Sherwood with a factual basis to support future planning efforts related to housing, including Concept Planning for Sherwood West, and prepares to update and revise the City's Comprehensive Plan policies.

The housing needs analysis is intended to comply with requirements of statewide planning policies that govern planning for housing and residential development, Goal 10, it's implementing Metropolitan Housing Rule (OAR 660-007), and Metro's 2040 Functional Growth Management Plan. Taken together, the City's primary obligations from Goal 10 are to (1) designate land in a way that provides the opportunity for 50% of new housing to be either multifamily or single-family attached housing (e.g., townhouses); (2) achieve an average density of six dwelling units per net acre; and (3) provide enough land to accommodate forecasted housing needs for the next 20 years. Sherwood is able to meet these requirements and can accommodate most of the new housing forecast, as described in this summary.

HOW HAS SHERWOOD'S POPULATION CHANGED IN RECENT YEARS?

The basis for the housing needs analysis is an understanding of the demographic characteristics of Sherwood's residents.¹

- **Sherwood's population grew relatively fast in recent years.** Sherwood's population increased from 3,000 people in 1990 to nearly 18,600 people in 2013, averaging 8% annual growth. Sherwood's fastest period of growth was during the 1990s, consistent with statewide trends. Between 2000-2013, Sherwood grew by 6,600 people, at an average rate of nearly 3.5% per year. For comparison, Washington County grew at 2.5% annually between 1990-2013 and the Portland Region grew at 1.6% per year.
- **Sherwood's population is aging.** People aged 45 years and older were the fastest growing age group in Sherwood between 2000 and 2010, consistent with state and national trends. By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015) and 25% in the Portland Region (up from 19% in 2015).

¹ The majority of data quoted in this analysis is from the U.S. Census American Community survey, with population data from the Population Research Center at Portland State University and development data from the City's Building Permit database.

It is reasonable to assume that the share of people 60 years and older will grow relatively quickly in Sherwood as well.

- **Sherwood is attracting younger people and more households with children.** In 2010, the median age in Sherwood was 34.3 years old, compared to Washington County’s median age of 35.3 years and the State median of 38.4. Sherwood has a larger share of households with children (47% of households), compared with Washington County (33%) or the Portland Region (29%). The Millennial generation—people born roughly between 1980 to 2000—are the largest age group in Oregon and will account for the majority of household growth in Sherwood over the next 20 years.
- **Sherwood’s population is becoming more ethnically diverse.** About 6% of Sherwood’s population is Latino, an increase from 4.7% in 2000. In comparison to Washington County and the Portland Region, Sherwood is less ethnically diverse. In the 2009-2013 period, 16% of Washington County residents, and 12% Portland Region residents, were Latino.

WHAT FACTORS MAY AFFECT FUTURE GROWTH IN SHERWOOD?

If these trends continue, population will result in changes in the types of housing demanded or “needed” in Sherwood in the future.

- **The aging of the population is likely to result in increased demand for smaller single-family housing, multifamily housing, and housing for seniors.** People over 65 years old will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes) as they continue to age.
- **The growth of younger and diversified households is likely to result in increased demand for a wider variety of affordable housing appropriate for families with children, such as small single-family housing, townhouses, duplexes, and multifamily housing.** If Sherwood continues to attract young residents, then it will continue to have demand for housing for families, especially housing affordable to younger families with moderate incomes. Growth in this population will result in growth

in demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.²

- **Changes in commuting patterns could affect future growth in Sherwood.** Sherwood is part of a complex, interconnected regional economy. Demand for housing by workers at businesses in Sherwood may change with significant fluctuations in fuel and commuting costs, as well as substantial decreases in the capacity of highways to accommodate commuting.
- **Sherwood households have relatively high income, which affects the type of housing that is affordable.** Income is a key determinant of housing choice. Sherwood’s median household income (\$78,400) is more than 20% higher than Washington County’s median household income (\$64,200). In addition, Sherwood has a smaller share of population below the federal poverty line (7.6%) than the averages of Washington County (11.4%) and the Portland Region (13.9%).

WHAT ARE THE CHARACTERISTICS OF SHERWOOD’S HOUSING MARKET?

The existing housing stock in Sherwood, homeownership patterns, and existing housing costs will shape changes in Sherwood’s housing market in the future.

- **Sherwood’s housing stock is predominantly single-family detached.** About 75% of Sherwood’s housing stock is single-family detached, 8% is single-family attached (such as townhomes), and 18% is multifamily (such as duplexes or apartments). Sixty-nine percent of new housing permitted in Sherwood between 2000 and 2014 was single-family detached housing.
- **Almost three quarters of Sherwood’s residents own their homes.** Homeownership rates in Sherwood are above Washington County (54%), the Portland Region (60%), and Oregon (62%) averages.
- **Homeownership costs increased in Sherwood, consistent with national trends.** Median sales prices for homes in Sherwood increased by about 30% between 2004 and 2014, from about \$245,000 to \$316,500. The median

² The housing needs analysis assumes that housing is affordable if housing costs are less than 30% of a household’s gross income. For a household earning \$6,500 (the median household income in Sherwood), monthly housing costs of less than \$1,960 are considered affordable.

home value in Sherwood is 3.8 times the median household income, up from 2.9 times the median household income in 2000.

- **Housing sales prices are higher in Sherwood than the regional averages.** As of January 2015, median sales price in Sherwood was \$316,500, which is higher than the Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$237,300) median sales prices. Median sales prices were higher in Sherwood than in other Portland westside communities such as Tigard, Tualatin, and Beaverton, but lower than Wilsonville or West Linn.
- **Rental costs are higher overall in Sherwood than the regional averages.** The median rent in Sherwood was \$1,064, compared to Washington County's average of \$852.
- **More than one-third of Sherwood's households have housing affordability problems.** Thirty-eight percent of Sherwood's households were cost-burdened (i.e., paid more than 30% of their income on rent or homeownership costs). Renters were more likely to be cost-burdened (40% of renters were cost-burdened), compared to homeowners (35% were cost-burdened) in Sherwood. These levels of cost burden are consistent with regional averages. In Washington County in the 2009-2013 period, 38% of households were cost burdened, compared to 41% in the Portland Region.
- **Future housing affordability will depend on the relationship between income and housing price.** The key question is whether housing prices will continue to outpace income growth. Answering this question is difficult because of the complexity of the factors that affect both income growth and housing prices.

HOW MUCH HOUSING GROWTH IS FORECAST, AND CAN THAT GROWTH BE ACCOMMODATED WITHIN SHERWOOD?

The housing needs analysis in this report is based on Metro's coordinated forecast of household growth in Sherwood. The forecast includes growth in both areas within the city limits, as well as areas currently outside the city limits that the City expects to annex for residential uses (most notably the Brookman area).

- **Sherwood is forecast to add 1,653 new households between 2018 and 2038.** Of these, 697 new households are inside the existing city limits; 956 new households are outside the current city limits in the Brookman Area.
- **Sherwood's land base can accommodate most of the forecast for growth.** Vacant and partially vacant land in the Sherwood Planning Area has capacity to accommodate 1,156 new dwelling units. Sherwood can accommodate about 70% of the forecast for new housing on areas within the city limits and Brookman Area.
- **Sherwood has a deficit of land for housing.** Sherwood has a deficit of land for 497 dwelling units.
- **To provide adequate land supply, Sherwood will need to continue to annex the Brookman area.** Without the Brookman area developing, the City has a projected deficit of 922 dwelling units. Sherwood will need to continue to annex the Brookman area in order to accommodate the City's forecast of residential growth. The City recently annexed about 98 acres in the Brookman Area. The annexed land is in the center of the Brookman Area and has relatively few owners (about 8 property owners). Annexing and developing other areas, with a larger number of owners, may be more challenging, to the extent that the property owners have to come to agreement about development.

WHAT IF SHERWOOD GROWS FASTER?

- **The forecast for growth in Sherwood is considerably below historical growth rates.** Metro's forecast for new housing in Sherwood shows that households will grow at less than 1% per year. In comparison, Sherwood's population grew at 3.4% per year between 2000 and 2013 and 8% per year between 1990 and 2013. If Sherwood grows faster than Metro's forecast during the 2018 to 2038 period, then Sherwood will have a larger deficit of land needed to accommodate growth.
- **At faster growth rates, Sherwood's land base has enough capacity for several years of growth.** At growth rates between 2% to 4% of growth annually, land inside the Sherwood city limits can accommodate two to

five years of growth. With capacity in the Brookman Area, Sherwood can accommodate four to ten years of growth at these growth rates.

- **Additional housing growth in Sherwood depends the availability of development-ready land.** The amount of growth likely to happen in Sherwood over the next few years is largely dependent on when the Brookman Area is annexed, when the Sherwood West area is brought into the urban growth boundary and annexed, and when urban services (such as roads, water, and sanitary sewer) are developed in each area. The City recently annexed about 98 acres in the Brookman Area.

1 Introduction

This report presents the Sherwood Housing Needs Analysis 2018 to 2038. The housing needs analysis provides Sherwood with a factual basis to support future planning efforts related to housing, including Concept Planning for Sherwood West, and prepares to update and revise the City's Comprehensive Plan policies. This report was based on the draft Sherwood Housing Needs Analysis 2015 to 2035 report, from June 2015.

It is intended to comply with statewide planning policies that govern planning for housing and residential development, Goal 10, OAR 660-007, and Metro's Functional Growth Management Plan. The methods used for this study generally follow the *Planning for Residential Growth* guidebook, published by the Oregon Transportation and Growth Management Program (1996).

This report provides Sherwood with a factual basis to support future planning efforts related to housing and options for addressing unmet housing needs. It provides specific analysis that is required for a jurisdiction in Oregon to comply with state policies.

BACKGROUND

Sherwood is located at the southwestern edge of the Portland metropolitan urban growth boundary (UGB). Over the 2000 to 2014 period, Sherwood had a substantial amount of residential growth. Residential development included all of the different housing types with single family detached housing concentrated in the 2000 to 2005 period. In part due to this growth and limited land supply for new homes, Sherwood is embarking on a Concept Plan for the Sherwood West urban reserve. Concurrently, the City is updating its factual basis for an eventual update of its Comprehensive Plan.

This housing needs analysis provides a factual basis to inform both an update of the residential Comprehensive Plan polices and the Concept Plan for Sherwood West. This analysis provides:

- Information about the characteristics of Sherwood's housing market, in the context of Washington County, the Portland metropolitan region, and Oregon,
- Information about the types and density of housing developed since 2000, changes in homeownership patterns,
- Changes in housing cost and affordability, and other housing market characteristics; and
- A forecast of residential growth in Sherwood for the 2018 to 2038 period.

As required by OAR 660-024, this forecast is based on Metro’s household forecast and demographics and economic trends that will affect housing demand over the next 20 years.

ORGANIZATION OF THE REPORT

The main body of this report presents a summary of key data and analysis used in the housing needs analysis. The appendices present detailed tables and charts for the housing needs analysis. This document is organized as follows:

- **Chapter 2. Historical and Recent Development Trends** presents a high-level summary of residential development in Sherwood.
- **Chapter 3. Housing Demand and Need** presents a housing needs analysis consistent with requirements in the Planning for Residential Growth Workbook. Detailed tables and charts supporting the demographic and other information discussed in Chapter 4 is presented in Appendix B.
- **Chapter 4. Residential Land Sufficiency** estimates the residential land sufficiency in Sherwood needed to accommodate expected growth over the planning period.
- **Appendix A. Residential Buildable Land Inventory Report**
- **Appendix B. Trends Affecting Housing Need in Sherwood**

FRAMEWORK FOR A HOUSING NEEDS ANALYSIS

People view homes and communities in a wide range of ways. Economists view housing as a bundle of services for which people are willing to pay. Shelter is one service, but housing typically also includes:

- Proximity to other attractions (job, shopping, recreation),
- Amenities (type and quality of fixtures and appliances, landscaping, views), prestige, and
- Access to public services (quality of schools).

Because it is impossible to maximize all these services and simultaneously minimize costs, households must, and do, make tradeoffs. What individuals can purchase for their money is influenced by individuals' life circumstances as well as economic forces and government policy. Among households and income levels, preferences vary. Attributes homebuyers and renters seek are a function of many factors that may include income, age of household head, number of people and children in the household, number of workers and job locations, educational opportunities, number of automobiles, neighborhood amenities and so on.

Thus, the housing choices of individual households are influenced in complex ways by dozens of factors; and the housing market in the Portland Region, Washington County, and Sherwood is the result of the individual decisions of thousands of households. These points help to underscore the complexity of projecting what types of housing will be built in Sherwood between 2018 and 2038.

The complex nature of the housing market was demonstrated by the unprecedented boom and bust during the past decade. This complexity does not eliminate the need for some type of forecast of future housing demand and need and the resulting implications for land demand and consumption. Such forecasts are inherently uncertain. Their usefulness for public policy often derives more from the explanation of their underlying assumptions about the dynamics of markets and policies than from the specific estimates of future demand and need.

Thus, we begin our housing analysis with a framework for thinking about housing and residential markets, and how public policy affects those markets.

OREGON HOUSING POLICY

Statewide planning Goal 10

Sherwood's primarily obligations under Goal 10 are to:

- Designate land in a way that 50% of new housing could be either multifamily or single-family attached housing (e.g., townhouses)
 - Provide opportunities to achieve an average density of six dwelling units per net acre
 - Provide opportunities for development of needed housing types: single-family detached, single-family attached, and multifamily housing.
-

The passage of the Oregon Land Use Planning Act of 1974 (ORS Chapter 197), established the Land Conservation and Development Commission (LCDC), and the Department of Land Conservation and Development (DLCD). The Act required the Commission to develop and adopt a set of statewide planning goals. Goal 10 addresses housing in Oregon and provides guidelines for local governments to follow in developing their local comprehensive land use plans and implementing policies.

At a minimum, local housing policies must meet the requirements of Goal 10 and the statutes and administrative rules that implement it (ORS 197.295 to 197.314, ORS 197.475 to 197.490, and OAR 600-008).³ Jurisdictions located in the Metro UGB are also required to comply with Metropolitan Housing in OAR 660-007 and Title 7 of Metro's Urban Growth Management Functional Plan in the Metro Code (3.07 Title 7).

Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as "housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels." ORS 197.303 defines needed housing types:

- (a) Housing that includes, but is not limited to, attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;⁴
- (c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490; and
- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions.

³ ORS 197.296 only applies to cities with populations over 25,000.

⁴ Government assisted housing can be any housing type listed in ORS 197.303 (a), (c), or (d).

In summary, Sherwood must identify needs for all of the housing types listed above as well as adopt policies that increase the likelihood that needed housing types will be developed.

The Metropolitan Housing Rule

OAR 660-007 (the Metropolitan Housing rule) is designed to “assure opportunity for the provision of adequate numbers of needed housing units and the efficient use of land within the Metropolitan Portland (Metro) urban growth boundary.” OAR 660-0070-005(12) provides a Metro-specific definition of needed housing:

"Needed Housing" defined. Until the beginning of the first periodic review of a local government's acknowledged comprehensive plan, "needed housing" means housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels.

The Metropolitan Housing Rule also requires cities to develop residential plan designations:

(1) Plan designations that allow or require residential uses shall be assigned to all buildable land. Such designations may allow nonresidential uses as well as residential uses. Such designations may be considered to be "residential plan designations" for the purposes of this division. The plan designations assigned to buildable land shall be specific so as to accommodate the varying housing types and densities identified in OAR 660-007-0030 through 660-007-0037.

OAR 660-007 also specifies the mix and density of new residential construction for cities within the Metro Urban Growth Boundary (UGB):

“Provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing or justify an alternative percentage based on changing circumstances” (OAR 660-007-0030 (1)).

OAR 660-007-0035 sets specific density targets for cities in the Metro UGB. Sherwood average density target is six dwelling units per net buildable acre.⁵

⁵ OAR 660-024-0010(6) defines Net Buildable Acres as follows: “Net Buildable Acre” consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.

Metro Urban Growth Management Functional Plan

The Metro Urban Growth Management Functional Plan describes the policies that guide development for cities within the Metro UGB to implement the goals in the Metro 2040 Plan.

Title 1: Housing Capacity

Title 1 of Metro's Urban Growth Management Functional Plan is intended to promote efficient land use within the Metro UGB by increasing the capacity to accommodate housing capacity. Each city is required to determine its housing capacity based on the minimum number of dwelling units allowed in each zoning district that allows residential development, and maintain this capacity.

Title 1 requires that a city adopt minimum residential development density standards by March 2011. If the jurisdiction did not adopt a minimum density by March 2011, the jurisdiction must adopt a minimum density that is at least 80% of the maximum density.

Title 1 provides measures to decrease development capacity in selected areas by transferring the capacity to other areas of the community. This may be approved as long as the community's overall capacity is not reduced.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 1 responsibilities.

Title 7: Housing Choice

Title 7 of Metro's Urban Growth Management Functional Plan is designed to ensure the production of affordable housing in the Metro UGB. Each city and county within the Metro region is encouraged to voluntarily adopt an affordable housing production goal.

Each jurisdiction within the Metro region is required to ensure that their comprehensive plans and implementing ordinances include strategies to:

- Ensure the production of a diverse range of housing types,
- Maintain the existing supply of affordable housing, increase opportunities for new affordable housing dispersed throughout their boundaries, and
- Increase opportunities for households of all income levels to live in affordable housing (3.07.730)

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 7 responsibilities.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 1 responsibilities.

Metro's 2016 Compliance Report concludes that Sherwood is in compliance for the City's Title 7 responsibilities.

Title 11: Planning for New Urban Areas

Title 11 of Metro’s Urban Growth Management Functional Plan provides guidance on the conversion of land from rural to urban uses. Land brought into the Metro UGB is subject to the provisions of section 3.07.1130 of the Metro Code, which requires lands to be maintained at rural densities until the completion of a concept plan and annexation into the municipal boundary.

The concept plan requirements directly related to residential development are to prepare a plan that includes:

- (1) A mix and intensity of uses that make efficient use of public systems and facilities,
- (2) A range of housing for different types, tenure, and prices that addresses the housing needs of the governing city, and
- (3) Identify goals and strategies to meet the housing needs for the governing city in the expansion area.

Metro’s *2016 Compliance Report* concludes that Sherwood is in compliance for the City’s Title 11 responsibilities.

In addition, the City needs to comply with the Fair Housing Act, administered by the U.S. Department of Housing and Urban Service (HUD). Complying with this Act requires meeting the Affirmatively Furthering Fair Housing (AFFH) goal of the Fair Housing Act. The City must comply with these regulations to qualify for federal grant funds for housing.

2 Historical and Recent Development Trends

Analysis of historical development trends in Sherwood provides insights into how the local housing market functions. The intent of the analysis is to understand how local market dynamics may affect future housing—particularly the mix and density of housing by type. The housing mix and density by type are also key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands* Workbook:

1. Determine the time period for which the data must be gathered.
2. Identify types of housing to address (at a minimum, all needed housing types identified in ORS 197.303).
3. Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types.

The period used in the analysis of housing density and mix is 2000 to 2014, which includes both times of high housing production and times of low housing production. The reasons for choosing this period were:

- (1) The 2000 to 2014 period includes more than one economic cycle, with extreme highs and extreme lows in the housing market and
- (2) Data prior to 2005 was less easily available and obtaining and compiling data for 2000 to 2004 was difficult to acquire.

The housing needs analysis presents information about residential development by housing types. For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached:** single-family detached units and manufactured homes on lots and in mobile home parks.
- **Single-family attached:** all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.
- **Multifamily:** all attached structures other than single-family detached units, manufactured units, or single-family attached units. Multifamily units include duplexes, tri-plexes, quad-plexes, and structures with more than five units (such as apartments).

The reason for choosing these categories of housing type for the analysis is that they meet the requirements definition of needed housing types in ORS 197.303.⁶

In general, this report uses data from the 2009-2013 American Community Survey (ACS) for Sherwood, as described in Appendix B. Where information is available, we report information from the 2010 Decennial Census. This section summarizes historical and recent development trends, described in detail in Appendix B.

The primary geographies used throughout this report are:

- **Sherwood.** This generally refers to the Sherwood city limits. Census data for Sherwood uses this geography.
- **Sherwood Planning Area.** This is the Sherwood city limits and land that is within the Metro urban growth boundary but outside of the Sherwood city limits, primarily the Brookman Area.
- **Sherwood West.** The urban reserve to the west of Sherwood that may be brought into the Metro urban growth boundary when needed regionally and determined beneficial locally.

While this report presents the forecast for housing growth in Sherwood for the 2018-2038 period, it is based on analysis completed for the 2015 HNA.

Residential development trends⁷

Single-family detached housing makes up the largest share of Sherwood's housing stock (Figure B- 1). Currently:

- Single-family detached housing accounts for about 75% of Sherwood's housing stock.
- Single-family attached housing accounts for about 8% of Sherwood's housing stock.
- Multifamily housing accounts for about 18% of Sherwood's housing stock.

Three-quarters of Sherwood's housing is single-family detached housing.

⁶ The analysis of development in Sherwood attempts to separate single-family detached and single-family attached housing. However, the City's building permit system does not distinguish between these two types of housing. City staff manually identified single-family attached housing where there was a concentration of it developed (i.e., a development of townhouses). City staff were unable to identify small-scale single-family attached development that was scattered throughout the city.

⁷ Except where otherwise noted, data in this section is from the U.S. Decennial Census (for 2010 data) or the U.S. Census's American Community Survey for 2009-2013.

Over the 2000-2014 period, 69% of new housing permitted by Sherwood was single-family detached housing.

The majority of housing developed in Sherwood between 2000 and 2014 was single-family detached housing (Table B- 1 and Figure B- 2).⁸

- Over the 2000 to 2014 period, Sherwood issued permits for nearly 2,225 dwellings, with about 148 units permitted each year.
- Sixty-nine percent of new housing permitted in Sherwood between 2000 and 2014 was single-family. Roughly 1,721 single-family dwelling units were permitted over the 15-year period.
- Nine percent of the building permits issued in Sherwood over 2000 to 2014 were single-family attached (i.e., townhouses) and 23% were for multifamily housing.
- The majority of new housing in Sherwood was built between 2000 and 2006, before development decreased with the national housing crisis.
- The majority of new multifamily housing in Sherwood was permitted in 2006, 2009, and 2014. The majority of new single-family attached housing was permitted in 2004 and 2005.
- Between 2015 and 2017, Sherwood permitted about 125 new single-family detached units.

Almost three quarters of Sherwood’s residents own their homes (Figure B- 3, Figure B- 4, and Figure B- 5). Homeownership rates in Sherwood are above Washington County and Oregon’s averages.

- Homeownership rates declined slightly over the last decade. Roughly 79% of housing in Sherwood was owner-occupied in 2000 compared to about 75% in 2010.
- Most owner-occupied housing is single-family detached, about 89%.
- Renter-occupied housing is a mixture of multifamily (57%), single-family detached (35%), and single-family attached (9%).

Sherwood’s vacancy rate is lower than Multnomah, Washington, and Clackamas counties, and lower than the State average (Table B- 2 and Figure B- 6).

- In 2010, Sherwood’s vacancy rate (3.9%) was below that of Multnomah (6.2%), Washington (5.4%), and Clackamas (7.1%) counties, and lower than Oregon’s (9.3%).
- The vacancy rates for apartments in the Tigard/Tualatin/Sherwood area varied from a high of 5.8% in Spring 2010 to a low of 2.6% in Fall 2013

⁸ Building permit data is from the City of Sherwood Building Permit Database.

and were within 1% of the vacancy rate for the Portland/Vancouver metro area.⁹

Sherwood's residential development between 2000 and 2014 averaged 8.2 dwelling units per net acre, above the State's requirement in OAR 660-007 for six dwelling units per net acre (Table B- 3 Table B-4).¹⁰

- Average density in Sherwood was 8.2 dwelling units per net acre over the 2000 to 2014 period.
- Density was lowest in the Very Low Density Residential Zone (2.9 dwelling units per net acre) and Medium Density Residential Low Zone (6.1 dwelling units per net acre).
- Density was highest in Office Commercial (24.4 dwelling units per net acre) and High Density Residential (19.1 dwelling units per net acre).

⁹ Multifamily NW Apartment Reports, Spring 2010 – Fall 2014.

¹⁰ City of Sherwood Building Permit Database.

3 Housing Need in Sherwood

This chapter presents the analysis of housing needs in Sherwood over the 2018 to 2038 period. Estimates of needed units by structure type and by density range follows.

Chapter 1 described the framework for conducting a housing "needs" analysis. The specific steps in conducting a housing needs analysis are:

1. Project number of new housing units needed in the next 20 years.
2. Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type mix.
3. Describe the demographic characteristics of the population and, if possible, housing trends that relate to demand for different types of housing.
4. Determine the types of housing that are likely to be affordable to the projected households based on household income.
5. Estimate the number of additional needed units by structure type.
6. Determine the needed density ranges for each plan designation and the average needed net density for all structure types.

This chapter presents information for these steps for Sherwood's housing needs analysis.

PROJECTION OF NEW HOUSING UNITS NEEDED IN THE NEXT 20 YEARS

The housing needs analysis in this report is based on the MetroScope forecast of household growth in Sherwood over the next 25 years.

As required by OAR 660-024, the housing needs analysis in this report is based on a coordinated forecast from Metro (the Metro 2040 TAZ Forecast by Households, January 2016), which is a necessary prerequisite to estimate housing needs. The projection of household growth includes areas currently within the city limits, as well as areas currently outside the city limits that the City expects will be annexed for residential uses (most notably the Brookman area). In 2017, a portion of the Brookman area annexed into the city limits. We call these areas combined the “Sherwood planning area.”

While the housing needs analysis presents information for Sherwood West, this area is currently outside of the regional UGB. Housing need in Sherwood West is not considered part of Sherwood’s overall housing need for the purposes of this study. The information in this report, however, can inform the ongoing Concept Planning for Sherwood West.

Table B-6 in Appendix B presents Metro’s forecast for housing in Sherwood for the 2010 to 2040 period. Table 1 presents ECONorthwest’s extrapolation of Metro’s forecast for Sherwood to the 2018 to 2038 period. Table 1 shows that **the Sherwood planning area is expected to add 1,653 new households between 2018 and 2038. Regional models and informed projections suggest nearly 700 (697) new households will be accommodated inside the existing city limits. Approximately 956 new households are expected to be accommodated outside the current city limits in the Brookman Area.**

The housing needs analysis focuses on housing growth in Sherwood over the 2018 to 2038 period.

The forecast shows that Sherwood will add 1,653 new households over the 20-year period.

The forecast shows growth of 4,157 new dwelling units in Sherwood West. While Metro’s forecast assumes that growth will take place over the next 20-years, it may occur over a 50-year period.

Table 1. Extrapolated Metro forecast for household growth, Sherwood planning area, 2018 to 2038

Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2018	6,883	282	7,165	293
2038	7,580	1,238	8,818	4,450
Change 2015 to 2040				
Households	697	956	1,653	4,157
Percent	10%	339%	23%	1419%
AAGR	0.5%	7.7%	1.0%	14.6%

Source: Metro 2040 TAZ Forecast by Households, January 2016
 Extrapolation from the 2015 forecast (the base year in the Metro forecast) to 2018 (not shown in Metro’s forecast) by ECONorthwest

DEMOGRAPHIC AND SOCIOECONOMIC FACTORS AFFECTING HOUSING CHOICE

Demographic trends are important to a thorough understanding of the dynamics of the Sherwood housing market. Sherwood exists in a regional economy; trends in the region impact the local housing market. This section documents national, state, and regional demographic, socioeconomic, and other trends relevant to Sherwood.

The Factors that Affect Housing Choice

The factors that have the largest impact on a household's housing choice are: age of the householder, household size and composition, and income.

Analysts typically describe housing demand as the preferences for different types of housing (i.e., single-family detached or apartment), and the ability to pay for that housing (the ability to exercise those preferences in a housing market by purchasing or renting housing—in other words, income or wealth).

Metro, the agency responsible for regional planning within the Portland metropolitan UGB, uses a decision support tool called Metroscope to model changes in measures of economic, demographic, land use, and transportation activity. Metroscope includes a residential location model, which projects the locations of future households based on factors such as land availability and capacity, cost of development, changes in demographics, changes in employment, and changes in transportation and transit infrastructure. The housing needs analysis in this report is based on the Metroscope forecast of household growth in Sherwood over the next 25 years.

Many demographic and socioeconomic variables affect housing choice. However, the literature about housing markets finds that age of the householder, size of the household, and income are most strongly correlated with housing choice.¹¹

¹¹ The research in this chapter is based on numerous articles and sources of information about housing, including:

The Case for Multi-family Housing. Urban Land Institute. 2003

E. Zietz. *Multi-family Housing: A Review of Theory and Evidence.* Journal of Real Estate Research, Volume 25, Number 2. 2003.

C. Rombouts. *Changing Demographics of Homebuyers and Renters.* Multi-family Trends. Winter 2004.

J. McIlwain. *Housing in America: The New Decade.* Urban Land Institute. 2010.

D. Myers and S. Ryu. *Aging Baby Boomers and the Generational Housing Bubble.* Journal of the American Planning Association. Winter 2008.

M. Riche. *The Implications of Changing U.S. Demographics for Housing Choice and Location in Cities.* The Brookings Institution Center on Urban and Metropolitan Policy. March 2001.

- **Age of householder** is the age of the person identified (in the Census) as the head of household. Households make different housing choices at different stages of life.
- **Size of household** is the number of people living in the household. Younger and older people are more likely to live in single-person households. People in their middle years are more likely to live in multiple person households (often with children).
- **Income** is the household income. Income is probably the most important determinant of housing choice. Income is strongly related to the type of housing a household chooses (e.g., single-family detached, duplex, or a building with more than five units) and to household tenure (e.g., rent or own).

This section focuses on these factors, presenting data that suggests how changes to these factors may affect housing need in Sherwood over the next 20 years.

National housing trends

Appendix B presents a full review of national housing trends. This brief summary builds on previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies of Harvard University. The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing is closely tied to jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the number of underwater homeowners, delinquent loans, and vacancies remains high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

L. Lachman and D. Brett. *Generation Y: America's New Housing Wave*. Urban Land Institute. 2010.

National housing market trends include:¹²

- **Post-recession recovery slows down.** Despite strong growth in the housing market in 2012 and the first half of 2013, by the first quarter of 2014, housing starts and existing home sales were both down by 3% from the same time a year before, while existing home sales were down 7% from the year before. Increases in mortgage interest rates and meager job growth contributed to the stall in the housing market.
- **Continued declines in homeownership.** After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at about 65%. The Urban Land Institute projects that homeownership will continue to decline to somewhere in the low 60% range.
- **Housing affordability.** In 2012, more than one-third of American households spent more than 30% of income on housing. Low-income households face an especially dire hurdle to afford housing. Among those earning less than \$15,000, more than 80% paid over 30% of their income and almost 70% of households paid more than half of their income. For households earning \$15,000 to \$29,000, more than 60% were cost burdened, with about 30% paying more than half of their income on housing.
- **Changes in housing characteristics.** National trends show that the size of single-family and multifamily units, and the number of household amenities (e.g., fireplace or two or more bathrooms) has increased since the early 1990s. Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 square feet to 2,384 square feet and 18% in the western region from 1,985 square feet to 2,359 square feet. Moreover, the percentage of units smaller than 1,400 square feet nationally decreased from 15% in 1999 to 8% in 2013. The percentage of units greater than 3,000 square feet increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 2009 and 2013, the percentage of lots less than 7,000 square feet increased from 26% of lots to 30% of lots. Similarly, in the western region, the share of lots less than 7,000 square feet increased from 43% to 48% of lots.

In 2012, more than one-third of households across the US had housing affordability problems, with the lowest income households having the most difficulty finding affordable housing.

Since 1990, the average size of new dwelling units increased both for single-family and multifamily housing. At the same time, the average lot size for new housing decreased.

¹² These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "The State of the Nation's Housing 2013," (2) Urban Land Institute, "2011 Emerging Trends in Real Estate," and (3) the U.S. Census.

Future housing preferences will be affected by demographic changes, such as the aging of the Baby Boomers, growing housing demand from Millennials, and growth of foreign-born immigrants.

- **Long-term growth and housing demand.** The Joint Center for Housing Studies forecasts that demand for new homes could total as many as 13.2 million units nationally between 2015 and 2025. Much of the demand will come from Baby Boomers, Millennials,¹³ and immigrants.
- **Changes in housing preference.** Housing preference will be affected by changes in demographics, most notably the aging of the Baby Boomers, housing demand from the Millennials, and growth of foreign-born immigrants. Baby Boomers' housing choices will affect housing preference and homeownership, with some boomers likely to stay in their home as long as they are able and some preferring other housing products, such as multifamily housing or age-restricted housing developments.

In the near-term, Millennials and new immigrants may increase demand for rental units. The long-term housing preference of Millennials and new immigrants is uncertain. They may have different housing preferences as a result of the current housing market turmoil and may prefer smaller, owner-occupied units or rental units. On the other hand, their housing preferences may be similar to the Baby Boomers, with a preference for larger units with more amenities. Recent surveys about housing preference suggest that Millennials want affordable single-family homes in areas that offer transportation alternatives to cars, such as suburbs or small cities with walkable neighborhoods.¹⁴

¹³ Millennials are, broadly speaking, the children of Baby Boomers, born from the early 1980's through the early 2000's.

¹⁴ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014. "Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders Show, accessed January, 2015, <http://www.buildersshow.com/Search/isesProgram.aspx?id=17889&fromGSA=1>. "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America, accessed January 2015, http://t4america.org/wp-content/uploads/2014/04/Press-Release_Millennials-Survey-Results-FINAL-with-embargo.pdf.

State Trends

Oregon's 2011-2015 Consolidated Plan includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.¹⁵ The plan concludes that "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, as compared to the nation.
- Since 2005, is experiencing higher foreclosure rates compared with the previous two decades.
- Losing federal subsidies on about 8% of federally-subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.
- Increasingly older, more diverse, and has less affluent households.¹⁶

Regional and Local Demographic Trends

Sherwood has a growing population (Table B- 5). Sherwood's growing population will drive future demand for Sherwood over the planning period.

- Sherwood grew by more than 15,000 people, a 501% increase in population, at an average annual rate of 8.1% over the 1990 to 2013 period.¹⁷
- Sherwood grew at a faster rate than the nation as a whole (1.0% per year), Oregon (1.4% per year), and the Portland Region (1.6%) over this period.
- Metro forecasts that the number of households in the Sherwood Planning Area will grow by about 1,653 households over the 2018-2038 period, at an average annual growth rate of 0.8%.
- Metro forecasts that Sherwood West, an area that is adjacent to Sherwood but currently outside of the Metro Urban Growth Boundary, will grow by 4,157 households. Growth in Sherwood West will not begin until the area is included in the Metro UGB and annexed into Sherwood. While Metro's forecast assumes that Sherwood West may be fully

¹⁵ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

¹⁶ State of Oregon *Consolidated Plan 2011 to 2015*.
http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

¹⁷ 2013 Population Estimates in Oregon come from Portland State University's Population Research Center.

developed by 2040, it may take longer, perhaps until 2065, for Sherwood West to fully develop.

- Metro’s forecast of household growth considers residential capacity within Sherwood’s city limits to accommodate growth. Much of Sherwood’s future growth depends on bringing new land into the city limits, including the Brookman Area and Sherwood West.

Sherwood’s population is younger than the state, on average (Table B- 7, Table B- 8, and Figure B- 8). Sherwood has a larger share of people younger than 30 years of age, and a relatively small share of people over 50 years. If Sherwood continues to attract young residents, then it will continue to have demand for housing for families, especially housing affordable to younger families with moderate incomes. Recent studies suggest that growth in younger residents (e.g., Millennials) will result in increased demand for both affordable single-family detached housing, as well as increased demand for affordable townhouses and multifamily housing. Growth in this population will result in growth in demand for both ownership and rental opportunities, with an emphasis on housing that is comparatively affordable.

- In 2010, the median age in Sherwood was 34.3 years old, compared to the State median of 38.4.
- A higher percentage of Sherwood’s population is younger than 30 years (44%) compared to the state as a whole (39%). Furthermore, a smaller share of Sherwood’s population is younger than 50 years (21%), compared to the state as a whole (34%).

Sherwood’s population is growing older (Figure B- 9). Although Sherwood has a smaller share of people over 50 years old than the State average, Sherwood’s population is growing older, consistent with State and national trends. Demand for housing for retirees will grow over the planning period, as the Baby Boomers continue to age and retire. However, Sherwood’s demand for housing for seniors may grow at a slower rate than across the State.

Growth of seniors will have the biggest impacts on demand for new housing through demand for housing types specific to seniors, such as assisted living facilities or age-restricted developments. These households will make a variety of housing choices, including: remaining in their homes as long as they are able, downsizing to smaller single-family homes (detached and attached) or multifamily units, or moving into group housing (such as assisted living facilities or nursing homes), as their health fails.

- The fastest-growing age group over the 2000 to 2010 period in Sherwood was people aged 45 years and older, with the most growth in the number of people aged 45 to 64.
- In Sherwood, people aged 45 to 64 grew by 102%, from 1,936 to 3,917 people between 2000 and 2010.

- By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The percent of total population in each age group younger than 60 years old will decrease. The age distribution in the Portland Region will change in a similar pattern.¹⁸
- Given the growth of people 45 years and older in Sherwood and the forecast for growth of people 60 years and older between 2018-2038 in Washington County and the Portland Region, it is reasonable to expect that Sherwood will have growth in the senior population.

Sherwood is becoming more ethnically diverse (Figure B- 10). Growth in Hispanic and Latino population will affect Sherwood’s housing needs in a variety of ways. Growth in first and, to a lesser extent, second and third-generation Hispanic and Latino immigrants tend to increase demand for larger dwelling units to accommodate the on average larger household sizes for these households. Households for Hispanic and Latino immigrants are more likely to include multiple generations, requiring more space than smaller household sizes. As Hispanic and Latino households integrate over generations, household size typically decreases and housing needs become similar to housing needs for all households.

Growth in Hispanic and Latino households will result in increased demand for housing of all types, both for ownership and rentals, with an emphasis on housing that is comparatively affordable.

- Sherwood’s Hispanic and Latino population grew by 99% from 2000 to the 2009-2013 period, from 557 to 1,107 people, increasing its share of the population from 4.7% to 6.0%.
- Nonetheless, Sherwood’s percentage of Hispanic or Latino population remains below that of the state as a whole. In the 2009-2013 period, Hispanic and Latino population accounted for 12% of the state’s population, compared to Sherwood’s average of 6.0%.

Sherwood’s household size is larger than State averages (Table B- 9). The larger household size is indicative of a larger share of households with children or multigenerational households.

- Sherwood’s average household size was 2.89 persons per household, compared with the regional average of 2.54 persons per household, and the state average of 2.49 persons per household.
- The size of households in Sherwood grew from 2000 to the 2009-2013 period (2.77 to 2.89). Over the same period, the average household size

¹⁸ Demographic forecast for Washington County by the Oregon Office of Economic Analysis.

in the Portland Region rose slightly from 2.53 to 2.54, while the State's average fell from 2.51 to 2.49.

Sherwood has a relatively high share of households with children (Figure B-11). Households with children are more likely to prefer single-family detached housing, if it is relatively affordable.

- Sherwood has a larger share of households with children (47%) than the State average (27%), the Portland Region (29%), or Washington County (33%).
- In the 2009-2013 period, Sherwood had a smaller share of single-person households (19%) than the regional average (29%).
- In the 2009-2013 period, Sherwood had a smaller share of non-family households (23%) than the regional average (38%).

Sherwood is part of a complex, interconnected regional economy (Figure B- 12, Table B- 11, and Table B- 12). Most people working at businesses in Sherwood do not live in Sherwood. Demand for housing by workers at businesses in Sherwood may change with fluctuations in fuel and commuting costs, as well as the capacity of highways to accommodate commuting.¹⁹

- Commuting is typical throughout the region: 91% of Sherwood's working residents commuted outside the city, and about 85% of those who work in the city live outside the city itself.

Summary of the Implications of Demographic and Socioeconomic Trends on Housing Choice

The purpose of the analysis thus far has been to provide background on the kinds of factors that influence housing choice, and in doing so, to convey why the number and interrelationships among those factors ensure that generalizations about housing choice are difficult and prone to inaccuracies.

There is no question that age affects housing type and tenure. Mobility is substantially higher for people aged 20 to 34. People in that age group will also have, on average, less income than people who are older. They are less likely to have children. All of these factors mean that younger households are much more likely to be renters, and renters are more likely to be in multifamily housing.

The data illustrate what more detailed research has shown and what most people understand intuitively: life cycle and housing choice interact in ways that are predictable in the aggregate; age of the household head is correlated with household size and income; household size and age of household head affect housing preferences; income affects the ability of a household to afford a

¹⁹ US Census Bureau, LED on the Map, <http://lehdmap3.did.census.gov/themap3/>.

preferred housing type. The connection between socioeconomic and demographic factors and housing choice is often described informally by giving names to households with certain combinations of characteristics: the "traditional family," the "never marrieds," the "dinks" (dual-income, no kids), the "empty nesters."²⁰ Thus, simply looking at the long wave of demographic trends can provide good information for estimating future housing demand.

Thus, one is ultimately left with the need to make a qualitative assessment of the future housing market. The following is a discussion of how demographic and housing trends are likely to affect housing Sherwood over the next 20 years:

- **Growth in housing will be driven by growth in population.** Between 2000 and the 2009-2013 period, the number of housing units in Sherwood increased by 47% from about 4,500 to 6,600 (Figure B- 4), while its population grew by roughly 55% from 11,963 to 18,575 from 2000 to 2013 (Table B- 5).²¹
- **On average, future housing will look a lot like past housing.** That is the assumption that underlies any trend forecast, and one that allows some quantification of the composition of demand for new housing. As a first approximation, the next three to five years of residential growth will look a lot like the last three to five years.
- **If the future differs from the past, it is likely to move in the direction (on average) of smaller units and more diverse housing types.** Most of the evidence suggests that the bulk of the change will be in the direction of smaller average house and lot sizes for single-family housing.

Key demographic trends that will affect Sherwood's future housing needs are: (1) the aging of the Baby Boomers, (2) aging of the Millennials, (3) growth of family households, and (4) continued growth in Hispanic and Latino population.

- *The Baby Boomer's population is continuing to age.* By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The changes that affect Sherwood's housing demand as the population ages are that household sizes decrease and homeownership rates decrease.
- *Millennials will continue to age.* By 2035, Millennials will be roughly between about 35 years old to 55 years old. As they age, generally speaking, their household sizes will increase and homeownership rates will peak by about age 55. Between 2018 and 2038,

²⁰ See *Planning for Residential Growth: A Workbook for Oregon's Urban Areas* (June 1997).

²¹ 2013 Population Estimates come from come from the Portland State University Population Research Center's Annual Population Estimates.

Millennials will be a key driver in demand for housing for families with children.

- *Growth of households with children.* Sherwood has an unusually high percentage of households with children, compared to the regional averages. If Sherwood continues to attract families with children, demand for housing for families, such as affordable single-family detached or townhouses, will increase.
- *Hispanic and Latino population will continue to grow.* The U.S. Census projects that by about 2040, Hispanic and Latino population will account for more than one-quarter of the nation's population. The share of Hispanic and Latino population in the western U.S. is likely to be higher. Growth in Hispanic and Latino population will drive demand for housing for families with children. Given the lower income for Hispanic and Latino households,²² growth in this group will also drive demand for affordable housing, both for ownership and renters.

In summary, an aging population, increasing housing costs, housing affordability concerns for Millennials and the Hispanic and Latino populations, and other variables are factors that support the conclusion of smaller and less expensive units and a broader array of housing choices.

Millennials and immigrants will drive demand for affordable housing types, including demand for small, affordable single-family units (many of which may be ownership units) and for affordable multifamily units (many of which may be rental units).

- **No amount of analysis is likely to make the distant future any more certain: the purpose of the housing forecasting in this study is to get an approximate idea about the future so policy choices can be made today.** Economic forecasters regard any economic forecast more than three (or at most five) years out as highly speculative. At one year, one is protected from being disastrously wrong by the shear inertia of the economic machine. But a variety of factors or events could cause growth forecasts to be substantially different.

²² The following article describes household income trends for Hispanic and Latino families, including differences in income levels for first, second, and third generation households. In short, Hispanic and Latino households have lower median income than the national averages. First and second generation Hispanic and Latino households have median incomes below the average for all Hispanic and Latino households.

Pew Research Center. *Second-Generation Americans: A Portrait of the Adult Children of Immigrants*, February 7, 2012

REGIONAL AND LOCAL TRENDS IN HOUSING COSTS AND AFFORDABILITY

Sherwood's income is higher than state averages (Figure B- 19). Income is a key determinant of housing affordability. Since 2000, Sherwood's income has decreased (in inflation-adjusted dollars), consistent with state trends.

- Sherwood's median household income (\$78,400) was about 55% higher than the state median (\$50,229) in the 2009-2013 period.
- Inflation-adjusted income for households in Sherwood decreased by about 10% from about \$87,500 in 2000 to \$78,400 (in 2013 dollars) from 2000 to the 2009-2013 period. This is consistent with state and regional trends.
- Poverty rates increased in Sherwood from 2.7% of the population below poverty in 2000 to 7.6% in 2010. The increase is consistent with state and regional trends.
- Sherwood had a smaller share of population below the federal poverty line in the 2009-2013 period (7.6%) than the state average (16.2 %).

Homeownership costs have increased in Sherwood (Figure B- 13, Figure B- 14, Figure B- 15 and Figure B- 16). Sales prices for single-family housing increased over the period from 2004 to 2014, consistent with national trends. While housing prices peaked in 2007, before falling during the recession, sales prices grew by about 30% from 2004 to 2014. Sales prices have continue to increase through 2017 and may be above the 2007 peak.

The increases in housing costs have made Sherwood less affordable than most other communities on the southwest side of Portland.

- Median sales prices for homes in Sherwood increased by about 30% between 2004 and 2014, from about \$245,000 to \$318,000.²³
- As of January 2015, median sales prices in Sherwood were about \$316,500, higher than in Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$237,300). Median sales prices were higher in Sherwood than in other Portland westside communities such as Tigard, Tualatin, and Beaverton but lower than Wilsonville or West Linn.
- Prices per square foot rose in Sherwood from \$130 per square foot in October 2004 about \$170 dollars in October 2014, comparable to the price in Washington County and the Portland Region (both about \$170). The cost of housing per square foot was comparable in Sherwood to other

Housing costs in Sherwood increased by 30% since 2000.

Sales prices in Sherwood are higher than the regional averages.

²³ Recent median home sale price, including price per square foot, comes from Zillow Real Estate Research.

cities on the southwest side of Portland, such as Tigard, Tualatin, Beaverton, and Wilsonville.

- The sales price data suggest that, overall, owner-occupied housing being produced in Sherwood was more expensive because it is larger than housing built in other cities in the southwestern Portland area.
- The ratio of home value to income increased by 32% from 2000 to 2009-2013. In 2000, the median home value was 2.9 times the median household income. By 2009-2013, the median home value was 3.8 times the median household income. In comparison, in 2009-2013, the typical value of an owner-occupied house in Washington County was 4.4 times the median income and the state average was 4.74 times the median income.

Rental costs are about 25% higher than the regional average.

Rental costs are higher in Sherwood than the average in Washington County, with a slightly lower rental cost on a cost per square foot basis (Table B- 14, and Figure B- 17 and Figure B- 18).

- The median contract rent in Sherwood in the 2009-2013 period was \$1,064, compared to Washington County’s average of \$852.
- Average rent in the Tigard/Tualatin/Sherwood area submarket was \$1.13 per square foot in Fall 2014, lower than the regional average of \$1.22 per square foot. Between Spring 2010 and Spring 2013, average rent in Tigard/Tualatin/Sherwood area increased by 38%, consistent with the regional increase of 36%.

More than one-third of Sherwood’s households have housing affordability problems, similar to regional averages.

More than one-third of Sherwood’s households have housing affordability problems (Figure B- 20 and Figure B- 21).

- Thirty-eight percent of Sherwood’s households were cost burdened (i.e., paid more than 30% of their income on rent or homeownership costs) in the 2009-2013 period.²⁴ This is consistent with the state averages.
- Roughly 40% of Sherwood’s renter households were cost burdened in the 2009-2013 period. About one-fifth of renters were severely cost burdened (i.e., pay more than 50% of their income on rent).
- About 35% of Sherwood’s homeowners were cost burdened in the 2009-2013 period. Only about 1% of homeowners were severely cost burdened (i.e., paid more than 50% of their income on homeownership costs).

²⁴A household is considered cost burdened if they pay more than 30% of their gross income on housing costs. For renters, housing costs include the following: monthly rent, utilities (electricity, gas, and water and sewer), and fuels (wood, oil, etc.). For homeowners, housing costs include the following: mortgage payments, real estate taxes, insurance, mobile home costs, condominium fees, utilities, and fuels.

- When considering housing and transportation costs combined, the average household in Sherwood spends 54% of its income on housing costs and transportation costs. Metro considered a household that spends 45% or more of its income on transportation and housing as paying more they can afford. For context, the average households in Tualatin, Wilsonville, and Tigard pay 50% to 52% of their income for housing and transportation costs.

Future housing affordability will depend on the relationship between income and housing price. Households in Sherwood generally have higher than average incomes and housing prices are higher than average. In addition, Sherwood is at the edge of the Metro UGB, making transportation costs higher for households in Sherwood, compared to households who live in more central parts of the region. Determining whether housing in Sherwood will be more or less affordable is difficult to answer when based on historical data. The key questions are whether housing prices will continue to outpace income growth and whether transportation costs will continue to grow in the future.

FORECAST OF HOUSING BY TYPE AND DENSITY OF HOUSING

Table 2 shows the forecast of needed housing units in Sherwood based on the total estimate of housing need shown in Table 1. The forecast in Table 2 assumes: that the forecast for new housing will be: 50% single-family detached, 10% single-family attached, and 40% multifamily. This forecast is consistent with the requirements of OAR 660-007-0035.

The forecast shows increased demand for lower-cost housing types such as single-family attached and multifamily units, which meets the needs resulting in the changing demographics in Sherwood and the Portland region. The changes in demographics are the aging of the Baby Boomers, growth in Millennial households, and increases in ethnic diversity. The previous section described these trends and the implications for housing need in Sherwood.

Table 2. Forecast of needed housing units by mix, Sherwood planning area, 2018-2038

Housing Type	New Dwelling Units (DU)	Percent
Single-family detached	827	50%
Single-family attached	165	10%
Multifamily	661	40%
Total	1,653	

Source: ECONorthwest

The assumed housing mix meets the requirement of OAR 660-007-0030 to “designate sufficient buildable land to provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing.”

The needed density in Sherwood is consistent with the densities achieved in residential zones Sherwood over the 2000-2014 period (Table B-4). These densities are:

- Very Low Density Residential (VLDR): 2.9 dwelling units per net acre
- Low Density Residential (LDR): 6.5 dwelling units per net acre²⁵
- Medium Density Residential – Low (MDRL): 6.1 dwelling units per net acre

²⁵ The historical density achieved in LDR, 6.5 dwelling units per acre, is higher than the maximum allowable density in LDR, 5 dwelling units per net acre. This fact can be explained in large part by the fact that 60% of new development in LDR was part of a Planned Unit Development (PUD), which averaged 7.6 dwelling units per acre.

- Medium Density Residential – High (MDRH): 7.7 dwelling units per net acre
- High Density Residential (HDR): 19.1 dwelling units per net acre

These densities, when applied to Sherwood’s supply of buildable land in the capacity analysis (Table 6) results in an overall density of 7.3 dwelling units per net acre. This housing density meets the requirements of OAR 660-007-0035 to “provide for an overall density of six or more dwelling units per net buildable acre.”

Table 3 allocates the needed housing units to Sherwood’s zones. The allocation is based on allowed uses in Sherwood’s zoning code, historical development trends, and Sherwood’s inventory of vacant buildable residential land.

Table 3. Allocation of needed housing units to zones, Sherwood planning area, 2018-2038

	Zone					Total
	Very Low Density Residential	Low Density Residential	Medium Density Residential-Low	Medium Density Residential-High	High Density Residential	
Dwelling Units						
Single-family detached	90	174	430	116	17	827
Single-family attached	-	-	-	99	66	165
Multifamily	-	-	83	229	349	661
Total	90	174	513	444	432	1,653
Percent of Units						
Single-family detached	5%	11%	26%	7%	1%	50%
Single-family attached	0%	0%	0%	6%	4%	10%
Multifamily	0%	0%	5%	14%	21%	40%
Total	5%	11%	31%	27%	26%	100%

Source: ECONorthwest

Needed housing by income level

Step four of the housing needs analysis is to develop an estimate of need for housing by income and housing type. This requires an estimate of the income distribution of current and future households in the community. The estimates presented in this section are based on (1) secondary data from the Census, and (2) analysis by ECONorthwest.

The analysis in Table 4 based on American Community Survey data about income levels in Sherwood, using income information shown in Table B- 17. Income is categorized into market segments consistent with HUD income level categories, using the Portland Region’s 2014 Median Family Income (MFI) of \$69,400. Table 4 is based on current household income distribution, assuming approximately that the same percentage of households will be in each market segment in the future.

Based on Sherwood’s current household income distribution, Table 4 shows that about 31% of households in Sherwood have incomes below 80% of the MFI. These households will need a range of housing, such as lower-cost single-family detached housing, townhouses, manufactured homes, or multifamily housing. These households will predominantly be renters. Sixty-nine percent of households have incomes above 80% of MFI. These households will be a mix of owners and renters. Their housing needs will include single-family detached, townhouses, and multifamily housing.

Growth in lower-income demographic groups, such as the Millennials, or in Baby Boomers who want to downsize their homes, may increase demand for smaller single-family detached houses, townhouses, and multifamily housing.

Table 4. Estimate of needed new dwelling units by income level, Sherwood, 2018-2038

Market Segment by Income	Income Range	Number of households	Percent of Households	Attainable		
				Owner-occupied	Renter-occupied	
High (120% or more of MFI)	\$83,280 or more	693	42%	All housing types; higher prices	All housing types; higher	Primarily New Housing
Upper Middle (80%-120% of MFI)	\$55,520 to \$83,280	446	27%	All housing types; lower values	All housing types; lower values	
Lower Middle (50%-80% of MFI)	\$34,700 to \$55,520	222	13%	Single-family attached; condominiums; duplexes; manufactured on lots	Single-family attached; detached; manufactured on lots;	Primarily Used Housing
Lower (30%-50% of less of MFI)	\$20,820 to \$34,700	112	7%	Manufactured in parks	Apartments; manufactured in parks; duplexes	
Very Low (Less than 30% of MFI)	Less than \$20,820	180	11%	None	Apartments; new and used government assisted housing	

Source: ECONorthwest
 MFI is Median Family Income

Need for government assisted and manufactured housing

ORS 197.303 requires cities to plan for government-assisted housing, manufactured housing on lots, and manufactured housing in parks.

- **Government-assisted housing.** Government subsidies can apply to all housing types (e.g., single family detached, apartments, etc.) Sherwood allows development of government-assisted housing in all Residential zones, with the same development standards for market-rate housing. This analysis assumes that Sherwood will continue to allow government-assisted housing in all its Residential zones. Because government-assisted housing is similar in character to other housing (with the exception of the subsidies), it is not necessary to develop separate forecasts for government-assisted housing.
- **Manufactured housing on lots.** Sherwood allows manufactured housing in all residential zones as a permitted use. As manufactured homes are allowed as a permitted use in all zones, it is not necessary to develop separate forecasts for manufactured housing on lots.
- **Manufactured housing in parks** (Table B- 13). OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high-density residential development. According to the Oregon Housing and Community Services' Manufactured Dwelling Park Directory,²⁶ Sherwood has four manufactured dwelling parks:
 - Carriage Park Estates with 58 spaces, all occupied
 - Crown Court with 14 spaces, except for one vacancy
 - Orland Villa with 24 spaces, all occupied
 - Smith Farm Estates with 90 spaces, all occupied

ORS 197.480(2) requires Sherwood to project need for mobile home or manufactured dwelling parks based on: (1) population projections, (2) household income levels, (3) housing market trends, and (4) an inventory of manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential.

- Table 1 shows that the Sherwood planning area will grow by 1,653 dwelling units over the 2018 to 2038 period.
- Analysis of housing affordability (in Table 4) shows that about 18% of Sherwood's new households will be low income, earning 50% or less

²⁶ Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>

of the County's median family income. One type of housing affordable to these households is manufactured housing.

- Manufactured housing in parks accounts for about 2.4% (258 dwelling units) of Sherwood's current housing stock, according to 2009-2013 Census data.
- National, state, and regional trends during the 2000 to 2010 period showed that manufactured housing parks were closing, rather than being created. For example, between 2003 and 2010, Oregon had a statewide decrease of 25% in the number of manufactured home parks. The trend of closing of manufactured housing parks slowed during the housing recession but is likely to increase as housing prices and land prices increase.
- The longer-term trend for closing manufactured home parks is the result of manufactured home park landowners selling or redeveloping their land for uses with higher rates of return, rather than lack of demand for spaces in manufactured home parks. Manufactured home parks contribute to the supply of lower-cost affordable housing options, especially for affordable home ownership. The trend in closure of manufactured home parks increases the shortage of manufactured home park spaces. Without some form of public investment to encourage continued operation of existing manufactured home parks and construction of new manufactured home parks, this shortage will continue.

Table 4 shows that the households most likely to live in manufactured homes in parks are those with incomes between \$20,820 and \$34,700 (30 to 50% of median family income). Assuming that about 1.5% to 2.5% of Sherwood's new households (1,653 new dwellings) choose to live in manufactured housing parks, the City may need 25 to 41 new manufactured home spaces. At an average of 8 dwelling units per net acre, this results in demand for 3.1 to 5.2 acres of land.

The City allows development of manufactured housing parks in MDRL zones, where the City has 66 vacant suitable buildable acres of land. Development of a new manufactured home park in Sherwood over the planning period seems unlikely. The land needed for development of a manufactured housing park is part of the forecast in Table 2.

4 Residential Land Sufficiency

This chapter presents an evaluation of the sufficiency of vacant residential land in Sherwood to accommodate expected residential growth over the 2018 to 2038 period. This chapter includes an estimate of residential development capacity (measured in new dwelling units) and an estimate of Sherwood's ability to accommodate needed new housing units for the 2018 to 2038 period. The chapter also includes conclusions and recommendations based on the results of the housing needs analysis.

RESIDENTIAL BUILDABLE LAND

Table 5 presents the City's inventory of buildable land. The buildable lands inventory is based on City of Sherwood and Metro GIS data. Appendix A presents a complete description of the methodology used to develop the buildable lands inventory. The key assumptions in the inventory are:

- **Vacant land** was defined as land that is fully vacant (as determined by Metro's Regional Land Information System (RLIS) GIS data and local data), or tax lots that are at least 95% vacant, or tax lots that have less than 2,000 square feet developed, with development covering less than 10% of the entire lot.
- **Unbuildable land** was removed from the inventory, including land with: public tax exemptions (i.e., land owned by the city or state), schools, churches, and other tax-exempt social organizations, private streets, rail properties, parks, and tax lots that do not meet the City's requirements for infill development.
- **Environmental resources and constraints** were deducted from the inventory of vacant land, including floodways and slopes over 25%.
- **Future rights-of-way** were accounted for based on lot sizes, with tax lots larger than one acre assumed to have 18.5% of land set aside for future rights-of-way.

Table 5 shows that Sherwood has 175 net acres of suitable buildable residential land. Fifty-five percent of Sherwood's vacant land (96 acres) is within the city limits and 45% (79 acres) is within the Brookman Area or other unincorporated areas within the current Urban Growth Boundary.

Table 5. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014

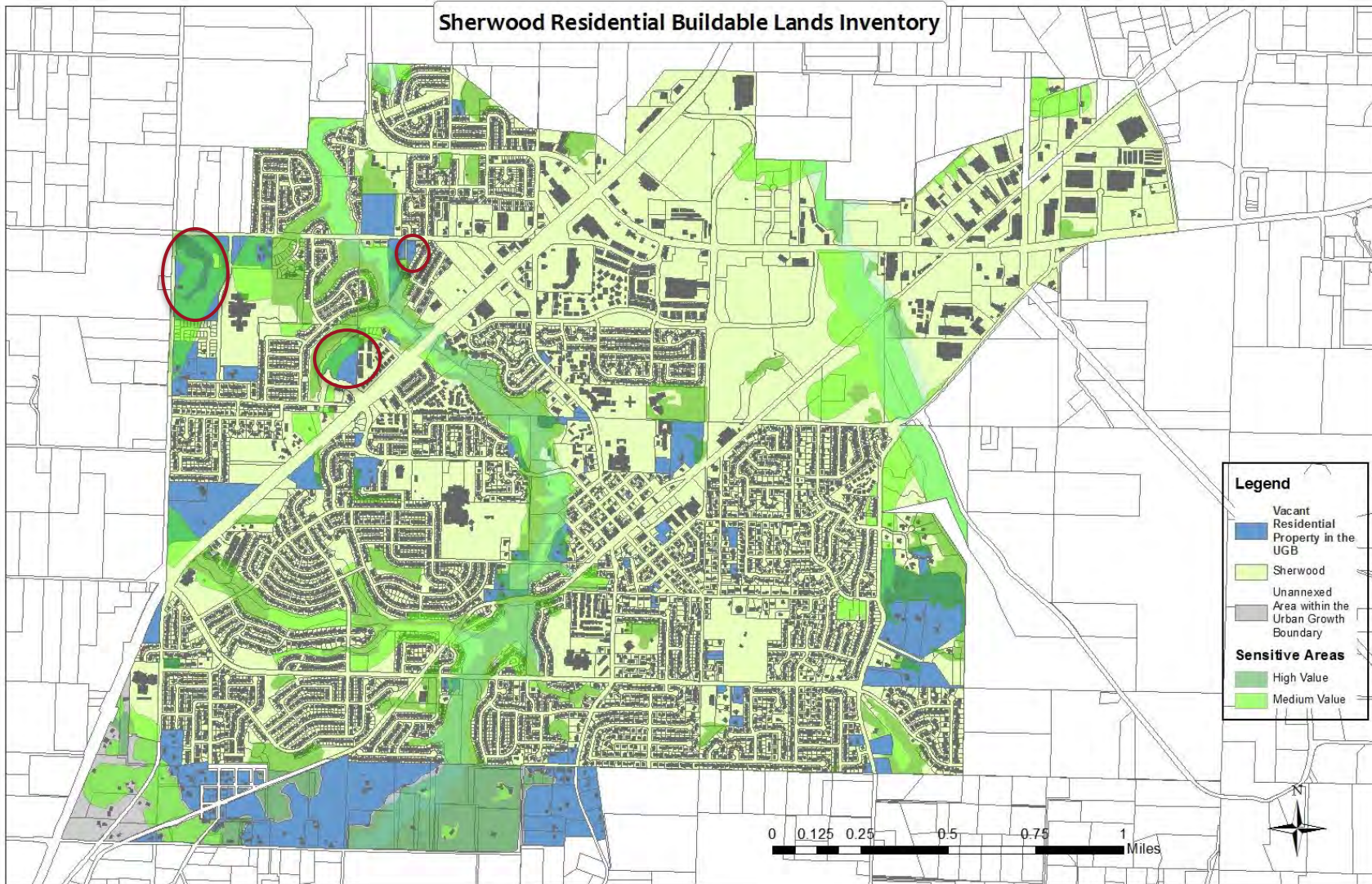
Zone	Gross Acres	Percent of Total
Land within City Limits		
Very Low Density Residential (VLDR)	24	14%
Very Low Density Residential Planned Unit Development (VLDR-PUD)	1	1%
Low Density Residential (LDR)	22	13%
Medium Density Residential-Low (MDRL)	14	8%
Medium Density Residential-High (MDRH)	21	12%
High Density Residential (HDR)	14	8%
Subtotal	96	55%
Brookman and Other Unincorporated Areas		
Very Low Density Residential (VLDR)	1	1%
Medium Density Residential-Low (MDRL)	52	30%
Medium Density Residential-High (MDRH)	8	4%
Medium Density Residential- Low/High* (MDRL/H)	15	8%
High Density Residential (HDR)	3	2%
Subtotal	79	45%
Total	175	100%

Source: City of Sherwood

*Note: There is one lot split between MDRL and MDRH.

Map 1 shows the inventory of vacant and partially vacant land in Sherwood. Notable areas where development has occurred since 2014 are circled in red on Map 1. In total, 125 new single-family detached units were permitted between January 1, 2015 and October 31, 2017.

Map 1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014



Source: City of Sherwood

RESIDENTIAL DEVELOPMENT CAPACITY

This section presents a summary of the analysis used to estimate Sherwood’s residential development capacity.

The capacity analysis estimates the number of new dwelling units that can be accommodated on Sherwood’s residential land supply.²⁷ The capacity analysis evaluates ways that vacant suitable residential land may build out by applying different assumptions.

In short, land capacity is a function of buildable land, housing mix (as determined by plan designation or zoning), and density. The basic form of any method to estimate capacity requires (1) an estimate of *buildable* land, and (2) assumptions about density. The arithmetic is straightforward:

$$\text{Buildable Land (ac)} * \text{Density (du/ac)} = \text{Capacity (in dwelling units)}$$

For example:

$$100 \text{ acres} * 8 \text{ du/ac} = 800 \text{ dwelling units of capacity}$$

The example is a simplification of the method, which skips some of the nuances that can be incorporated into a detailed capacity analysis such as variations in densities and housing mix among different Comprehensive Plan Designations.

Capacity analysis results

The capacity analysis estimates the development potential of vacant residential land to accommodate new housing based a range of density assumptions by zoning designation. Table 6 shows the capacity of Sherwood’s residential land based on the buildable vacant and partially vacant land in Sherwood and a range of potential density assumptions.

The analysis of capacity in Table 6 is meant to illustrate the potential capacity of Sherwood’s land based on current development policies and on historical development densities. Table 6 shows development capacity using: (1) the minimum allowable densities and (2) the maximum allowable densities (ensuring that lots meet the minimum lot size requirements. Table 6 also shows capacity based on historical densities.

- **Buildable Acres.** The Buildable Lands Inventory identified 175 net acres of vacant and partially vacant land, with 96 acres within Sherwood’s city

²⁷ In this report, the term “capacity analysis” is used as shorthand for estimating how many new dwelling units the vacant residential land in the UGB is likely to accommodate.

limits and 79 acres in the Brookman and other unincorporated areas within the Metro UGB.

- **Capacity based on Zoning: Minimum Densities.** The analysis considered the capacity of Sherwood's land based on minimum densities in Sherwood's zoning code. This analysis shows that Sherwood has capacity of 940 new dwelling units at 5.4 dwelling units per net acre based on minimum zoning in all districts.
- **Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes.** The analysis considered the capacity of Sherwood's land based on maximum densities in Sherwood's zoning code and the minimum lot size. This analysis was developed based on parcel-specific data. The amount of buildable land was identified in each parcel and the potential capacity was evaluated based on development standards in Sherwood's zoning code.

The maximum capacity estimate estimates the capacity of Sherwood's land based on the maximum density allowed by zone by parcel, assuming that each parcel of buildable land meets the minimum lot size of the zone it is in.

Table 6 shows that Sherwood's buildable land has capacity to accommodate 1,510 new dwelling units under these assumptions. This estimate results in an overall average of 8.6 dwelling units per net acre. About 44% of Sherwood's development capacity is in the Brookman area and other unincorporated areas within the Metro UGB.

- **Historical Development Densities.** The analysis considered the capacity of Sherwood's land based on historical development density by zone. In this analysis, we applied the historical density to the total vacant land in each zone to estimate the number of dwelling units that could be accommodated.

Table 6 shows that Sherwood's buildable land has capacity to accommodate 1,286 new dwelling units based on historical development densities. This estimate results in an overall average of 7.3 dwelling units per net acre. About 44% of Sherwood's development capacity is in the Brookman area and other unincorporated areas within the Metro UGB.

Table 6. Range of capacity estimates, Sherwood vacant and partially vacant land, gross acres and gross densities, 2015

Zone	Buildable Acres	Capacity based on Zoning: Minimum Densities		Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes		Capacity based on Historical Development Densities		Difference in Capacity between Maximum Densities and Historical Densities	
		Dwelling units	Derived Density	Dwelling units	Derived Density	Density Assumption	Dwelling units	Difference in Dwelling Units	Difference in Density
Land within City Limits									
VLDR	24	19	0.8	94	3.9	2.9	69	25	1.0
VLDR_PUD	1	-	-	4	3.8	2.9	3	1	0.9
LDR	22	71	3.2	113	5.1	6.5	144	(31)	(1.4)
MDRL	14	75	5.2	112	7.8	6.1	88	24	1.7
MDRH	21	111	5.3	223	10.7	7.7	161	62	3.0
HDR	14	224	16.0	303	21.7	19.1	266	37	2.6
Subtotal	96	500	5.2	849	8.8		731	118	8.8
Brookman and Other Unincorporated Areas									
VLDR	1	2	1.6	4	3.2	2.9	3	1	0.3
MDRL	52	275	5.3	401	7.7	6.1	317	84	1.6
MDRH	8	36	4.7	62	8.1	7.7	58	4	0.4
MDRL/H*	15	78	5.3	109	7.5	7.5	109	-	-
HDR	3	49	15.4	70	22.1	19.1	60	10	3.0
Subtotal	79	440	5.6	661	8.4		547	114	8.4
Total	175	940	5.4	1,510	8.6	7.3	1,278	232	1.3

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

*Note: There is one lot in the Brookman Area that is split zoned MDRL/MDRH. Of this 15 acre lot, 13 acres is assumed MDRH and two acres is assumed MDRL. The density assumptions for that lot are consistent with the density assumptions shown in Table 6.

Table 6 compares the difference in the capacity estimates for the “maximum density (and minimum lot size) capacity” estimate and the “historical development density” estimate. Table 6 shows that the capacity estimate based on historical development densities results in 224 fewer dwelling units than the capacity based on maximum densities. The average density using the historical development densities is 1.3 dwelling units per acre lower than the maximum density analysis.

This difference shows that development in Sherwood is generally occurring at lower than the maximum allowed densities, showing underbuild in Sherwood. Further analysis shows that residential development between 2000 and 2014 occurred at between 70% to 80% of the maximum allowable densities. The exception is Low Density Residential, where development occurred at higher than allowable densities approximately 60% of LDR development between 2000 and 2014 was in Planned Unit Developments – neighborhoods that were approved to provide a more compact development option.

Underbuild is expected as a result of development constraints that lower development capacity, such as slopes. In addition, parcel configuration contributes to underbuild, with parcels that are oddly shaped or have more land than the minimum requirement but not enough for additional housing.

Table 6 demonstrates that development in Sherwood occurred at considerably higher densities than the minimum allowable densities in each zone.

Based on the analysis in Table 6, we conclude that **both the maximum density (and minimum lot size) and the historical development density estimates exceed the State requirement (OAR 660-007-0035(2))** to “provide for an overall

density of six or more dwelling units per net buildable acre.” The estimate results in an average density of between 7.3 to 8.6 dwelling units per net acre.

The conclusion of the housing needed analysis is that Sherwood’s historical densities meet Sherwood’s future housing needs.

In addition to the capacity shown in Table 6, Sherwood could have additional residential development capacity resulting in development of housing in commercial zones and from redevelopment of residential properties with existing development (where redevelopment results in a net increase in the number of dwelling units on the property).

About 9% of Sherwood’s residential development over the 2000 to 2014 period occurred in commercial zones. It is reasonable to assume that some residential development over the next 20 years would occur in commercial zones, as long as housing is considered a secondary use to the commercial use, as required by Sherwood’s development code.

Sherwood has limited opportunities for redevelopment because much of Sherwood’s housing stock was developed over the last two decades. In addition, residential land in Sherwood is parcelized and meeting existing density requirements in areas with existing development would be difficult.

Table 7 presents a revision of the capacity shown in Table 6 for capacity based on historical densities. Between January 1, 2015 and October 31, 2017, Sherwood issued 125 permits for housing, all in the MDRL, MDRH, and HDR zones. Table 7 reduces the capacity estimate by 125 units, resulting in a capacity of 606 units on land within the city limits.

Table 7. Revised capacity based on historical development densities accounting for building permits issued in 2015 to 2017, dwelling units, 2017

Zone	Capacity based on		Revised Capacity
	Historical Development Densities	Building Permits Issued 2015 to 2017	
Land within City Limits			
VLDR	69		69
VLDR_PUD	3		3
LDR	144		144
MDRL	88	24	64
MDRH	161	27	134
HDR	266	74	192
Subtotal	731	125	606

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

Table 8 summarizes Sherwood’s development capacity based on the analysis in Table 6 (using the Historical Densities analysis) and reduction in capacity for development between 2015 and 2017 in Table 7.

Table 8. Summary of development capacity based on changes from 2015 to 2017, dwelling units, Sherwood city limits and Brookman and other Unincorporated areas, 2017

	Buildable Acres	Density Assumption	Dwelling units
Very Low Density Residential	26	2.9	76
Low Density Residential	22	6.5	144
Medium Density Residential-Low	68	6.1	392
Medium Density Residential-High	41	7.7	291
High Density Residential	17	19.1	253
Total	175	6.6	1,156

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

RESIDENTIAL LAND SUFFICIENCY

The last step in the analysis of the sufficiency of residential land within Sherwood is to compare the demand for land by zone (Table 3) with the capacity of land by zone based on historical development densities (Table 6 and Table 7). Table 9 shows that Sherwood has a deficit of capacity in each zone, for a total deficit of about 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units), Medium Density Residential-High (153 dwelling units), and High Density Residential (179 dwelling units).

Table 9. Comparison of capacity of existing residential land with demand for new dwelling units, dwelling units, Sherwood planning area, 2018-2038

Zone	Capacity (Needed Densities)	Housing Demand	Comparison Capacity minus
Very Low Density Residential	76	90	-14
Low Density Residential	144	174	-30
Medium Density Residential-Low	392	513	-121
Medium Density Residential-High	291	444	-153
High Density Residential	253	432	-179
Total	1,156	1,653	-497

Source: ECONorthwest
 Note: DU is dwelling unit.

POTENTIAL GROWTH IN SHERWOOD WEST

Development capacity in Sherwood West will vary from 3,300 to 6,500 dwelling units. The Concept Plan will begin to identify housing types and development scenarios that fit with the community's vision for Sherwood West and that are possible, given likely development and infrastructure costs

The Concept Planning work for Sherwood West is ongoing. The results of the Concept Planning work and later concept and master planning phases will determine more precisely the type and amount of housing in Sherwood West. Table 10 presents estimates of capacity in Sherwood West based on a range of density assumptions, from an average of 6.0 to 12.0 dwelling units per acre. The purpose of the information in Table 10 is to provide some idea of potential development capacity in Sherwood West.

The timing of development in Sherwood West is being discussed through the Concept Planning process. A number of factors will affect the timing of development in Sherwood West, such as when the area is brought into the Metro UGB, provisions of services, and future concept planning for the area. Sherwood West may not be fully built out until 2065. The areas expected to develop first in Sherwood West are Areas A, B, and a portion of C in the Concept Plan, which are located in the southeast part of Sherwood West, adjacent to the Brookman Area. The Sherwood School District has plans to develop a high school in Area A in the next few years.

Table 10. Potential residential development capacity, Sherwood West

	Dwelling Units	Notes
Estimate of Buildable Land		
Gross Acres	670	
Net Acres	546	We assumed an average net-to-gross factor of 18.5% for rights-of-way, regardless of parcel size.
Potential Capacity based on Density Assumptions		
Required average from OAR 660-007 - 6 DU/net acre	3,276	Under this assumption, Sherwood West would be primarily built-out with single-family detached housing. Given Sherwood's historical development densities and the City's requirement to provide opportunity that half of new development is single-family attached and multifamily, this density seems too low for Sherwood West. Issues related to costs of services and development density will be discussed in the pre-concept planning process (and again in the concept planning process) may indicate that this density assumption is too low to support development costs for Sherwood West.
Historical Development Density* - 7.8 DU/net acre	4,259	Issues related to costs of services and development density will be discussed in the pre-concept planning process (and again in the concept planning process) may indicate that this density assumption is too low to support development costs for Sherwood West.
10 DU/net acre	5,460	Metro's forecast for capacity in Sherwood West (4,844) would be accommodated at an average of 10 dwelling units per acre, with some additional capacity for other development.
12 DU/net acre	6,552	

Source: Buildable Lands Estimate from OTAK and analysis by ECONorthwest

*Note: Historical Development Density includes only development in residential zones over the 2000-2014 period.

CONCLUSIONS AND RECOMMENDATIONS

The key findings and recommendations from the housing needs analysis are as follows:

Sherwood is able to accommodate 70% of the forecast for growth within the Sherwood Planning Area.

- **Sherwood is able to meet state requirements.** The City's primary obligations are to (1) designate land in a way that 50% of new housing could be either multifamily or single-family attached housing (e.g., townhouses) and (2) achieve an average density of six dwelling units per net acre. Put another way, the City is required to plan that 50% of their new housing has the opportunity to be multifamily or single-family attached housing (e.g., townhouses), with all housing at an average density of 6 dwelling units per net acre. Sherwood is able to meet these requirements.
- **Sherwood is meeting its obligation to plan for needed housing types for households at all income levels.** Sherwood's residential development policies include those that allow for development of a range of housing types (e.g., duplexes, manufactured housing, and apartments) and that allow government-subsidized housing. This conclusion is supported by the fact that Metro's 2016 *Compliance Report* concluded that Sherwood was in compliance with Metro Functional Plan and Title 7 (Housing Choice).
- **Sherwood has a deficit of land for housing.** Sherwood can accommodate about 70% of the forecast for new housing on areas within the city limits and Brookman Area.
- **To provide adequate supply, Sherwood will need to continue to annex the Brookman area.** Sherwood will need to continue to annex the Brookman area in order to accommodate the City's forecast of residential growth. The City recently annexed about 98 acres in the Brookman Area. The annexed land is in the center of the Brookman Area and has relatively few owners (about 8 property owners). Annexing and developing other parts of the Brookman area, with a larger number of owners, may be more challenging, to the extent that the property owners have to come to agreement about development.
- **Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman Area.** The growth rate of Metro's forecast for household growth (0.8% average annual growth) is considerably lower than the City's historical population growth rate over the last two decades (8% average annual growth). Metro's forecast only includes growth that can be accommodated with the Sherwood Planning area, which does not include Sherwood West.

Sherwood's fast growth during the last two decades was driven by historically fast in-migration in to the Portland region, a trend that Metro's forecast shows slowing, and the availability of vacant buildable residential land in Sherwood.

Sherwood will need Sherwood West to accommodate future growth beyond the existing city limits and Brookman Area.

Given the limited supply of buildable land within Sherwood, it is likely that the City's residential growth will slow, especially if portions of Sherwood West are not brought into the Metro UGB in the earlier part of the 20-year planning period. It is likely that Sherwood's future growth over the 2018-2038 period would be considerably slower than its historical growth rate, if for no other fact than it is mathematically more difficult to maintain a high growth rate with a larger population. In addition, Sherwood's fast growth during the last two decades was driven by historically fast in-migration in to the Portland region, a trend that Metro's forecast shows slowing, and the availability of vacant buildable residential land in Sherwood.

- **Sherwood should monitor residential development.** The city may wish to develop a monitoring program that will allow Sherwood to understand how fast land is developing. The monitoring program will inform Metro's UGB planning process by providing more detailed information about housing growth and development capacity in Sherwood. This information can help City staff and decision-makers make the case to Metro staff and decision-makers about the need for residential expansion areas. We recommend using the following metrics to monitor residential growth:
 - **Population.** The City already routinely monitors population growth by using the annual population estimates prepared by the Center for Population Research at Portland State University.
 - **Building permits.** The Housing Needs Analysis included a review of building permits by dwelling type, plan designation, zone, and net density. Because the City collects most of the data used in the analysis of historical development density, we recommend that city staff update this analysis on an annual basis.
 - **Subdivision and partition activity.** This metric is intended to measure the rate and density of land divisions in Sherwood. Specific data to include with subdivision and partition activity are the area of the parent lot, the area in child lots, the number of child lots, the average size or density of lots, and the area in dedicated right-of-way.
 - **Land consumption.** This metric relates closely to the building permit data. The building permit data should include tax lot identifiers for each permit. The City should match each permit to data in the buildable lands inventory and report how much land is being used by plan designation, zone, and land classification (e.g., vacant, redevelopable, infill, etc.). Additionally, we recommend the City map the location of development on an annual basis.

This page intentionally left blank.

Appendix A. Appendix A. Residential Buildable Lands Inventory

This appendix presents the methodology used to develop the buildable lands inventory and the results of the buildable lands inventory. The information in this appendix was developed by City of Sherwood staff.²⁸

METHODOLOGY

Definitions used in the inventory

Vacant land

- Any tax lot that is fully vacant as determined by RLIS GIS Data²⁹, aerial photography, field checks and local records.
- Tax lots that are at least 95% vacant are considered vacant land.
- Tax lots that are less than 2,000 sq. feet developed AND developed part is under 10% of entire lot

Developed land

- Part vacant/part developed tax lots are considered developed and will be treated in the redevelopment filter

Steps in developing the buildable land inventory

Step 1: Inventory and map fully vacant residential lands

a. Sort City tax lot data by zoning designation within the City boundary.

The residential zones including any planned unit development overlay utilized within this study include:

- Very Low Density Residential (VLDR)
- Low Density Residential (LDR)
- Medium Density Residential Low (MDRL)
- Medium Density Residential High (MDRH)
- High Density Residential (HDR)

b. Identify parcels that are fully vacant.

²⁸ Michelle Miller, AICP, Senior Planner at the City of Sherwood developed the buildable lands inventory.

²⁹ Metro's Data Resource Center collaborates with local partners to develop and deliver the Regional Land Information System (RLIS) – more than 100 layers of spatial data that supports strategic decision-making for governments, businesses and organizations across the region.

1. Remove developed parcels using most recent Metro's RLIS GIS data.
2. Planning staff review based on current aerial photography, field checks, and local records

Step 2: Subtract unbuildable acres

a. Remove tax lots that d/n have potential to provide residential growth.

1. Tax exempt with property codes for City, State, Federal and Native American designations
2. Schools
3. Churches and social organizations-based solely on tax exempt codes
4. Private streets
5. Rail properties
6. Tax lots under the minimum lot size of the zone or 4,250 sq. ft. for residential land due to infill standards
7. Parks

b. Calculate deductions for environmental resources³⁰.

1. Remove Floodways-100% removed
2. Recognize environmental constraints such as slopes over 25 % and constrained areas as defined by Cities and Counties under Metro Functional Plan Title 13-Riparian Corridors (Class I and II) and Upland Wildlife Habitat (Class A and B) -100%
3. By assumption, allow one dwelling unit per residentially zoned tax lot if environmental encumbrances would limit development such that by internal calculations no dwelling units would otherwise be permitted.

c. Calculate for future streets.³¹

This methodology sets aside a portion of the vacant land supply (not redevelopment supply) in order to accommodate future streets and sidewalks.

This assumption is calculated on a per tax lot basis.

1. Tax lots less than 3/8 acre assume 0% set aside future streets.³²
2. Tax lots between 3/8 acre and 1 acre assume a 10% set aside for future streets
3. Tax lots greater than an acre assume an 18.5% set aside for future streets

³⁰ Environmental resources are considered to include Title 3, Title 13 FEMA floodway and slopes over 25 %.

³¹ The BLI accounts for future streets on a tax lot by tax lot basis. The buildable area of each tax lot is reduced based on individual tax lot size.

³² The basis for these net street deduction ratios derive from previous research completed by the Data Resource Center and local jurisdictions for the 2002 UGR.

4. Industrial zoning assumes a 10% set aside regardless of size.

Step 3: Inventory and map re-developable lands

a. Definition:

Re-developable: applies to lots that are classified as developed that are now likely to redevelop or during the 20-year planning period.

b. Query performed that identifies previously developed lots that have potential to redevelop over time due to the relationship between the size of the lot and the value of improvements.

1. Sites between .26-.54 acres with improvements less than \$ 50 K
2. Sites over .55 acres with improvement between \$50,001-100 K
3. Sites over 1 acre with improvement values between \$ 100,001-150 K
4. Results of this query include land that is wholly re-developable, meaning existing improvements would be replaced, and land that is partially vacant, meaning the lot could be divided to allow for additional development.

Step 4: Planning staff review of draft map-(Investigative step)

- a. Remove under construction or pending construction as of October 1, 2014
- b. Added back and redefined areas of special concern (Areas like Brookman for example)³³
- c. Review and add City owned properties that are developable and not held for public purpose
- d. For parcels zoned MDRH and HDR determine densities based on location and likelihood that parcel will develop with multifamily or single-family dwelling units and base densities on minimum lot size for single-family and maximum density for multifamily.
- e. Re-developable or partially vacant sites that include:
 - Properties currently for sale
 - Lots that are more than twice the minimum lot size required to support the number of existing dwelling units including tax lots that have land division potential
 - Sites that should have been identified as partially vacant but not caught earlier
 - Lands with single-family development zoned for multifamily development
- f. Remove from Map and defined the following as Not Likely to Redevelop
 - Sites occupied by active religious institutions
 - Sites with known deed restrictions
 - Sites currently under development

³³ Assume Brookman Concept Plan Zoning

- Sites occupied by utility infrastructure
- Commercially zoned land greater than ½ mile from either residential or town center lots-most likely won't be mixed use with residential

g. Redevelop Strike Price Analysis

- Perform on all tax lots planned for residential and commercial development, to identify Multifamily and Commercial sites with a market redevelopment strike price of less than \$10 per square foot.³⁴

$$\text{Strike Price} = \frac{(\text{Improvement value} + \text{land value})}{\text{Total Sq. Ft of lot}}$$

h. Identify possible rezone properties that would either be added or subtracted from the inventory over time.

³⁴ This formula is part of the draft proposed Metro methodology for identifying sites zoned for Multifamily and Mixed Use Development that are likely to redevelop. \$10/sq.ft. is the estimated threshold for the market supporting redevelopment of suburban sites that are zoned for multifamily development.

RESULTS OF THE BUILDABLE LANDS INVENTORY

Table A- 1 presents the City’s inventory of buildable land. The buildable lands inventory is based on City of Sherwood and Metro GIS data. Table A- 1 shows that Sherwood has 175 net acres of suitable buildable residential land. Fifty-five percent of Sherwood’s vacant land (96 acres) is within the city limits and 45% (79 acres) is within the Brookman Area or other unincorporated areas within the current Urban Growth Boundary.

Table A- 1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014

Zone	Gross Acres	Percent of Total
Land within City Limits		
Very Low Density Residential (VLDR)	24	14%
Very Low Density Residential Planned Unit Development (VLDR-PUD)	1	1%
Low Density Residential (LDR)	22	13%
Medium Density Residential-Low (MDRL)	14	8%
Medium Density Residential-High (MDRH)	21	12%
High Density Residential (HDR)	14	8%
Subtotal	96	55%
Brookman and Other Unincorporated Areas		
Very Low Density Residential (VLDR)	1	1%
Medium Density Residential-Low (MDRL)	52	30%
Medium Density Residential-High (MDRH)	8	4%
Medium Density Residential- Low/High* (MDRL/H)	15	8%
High Density Residential (HDR)	3	2%
Subtotal	79	45%
Total	175	100%

Source: City of Sherwood

*Note: There is one lot split between MDRL and MDRH.

Table A- 2 presents a revision of the capacity shown in Table A- 1 for capacity based on historical densities. Between January 1, 2015 and October 31, 2017, Sherwood issued 125 permits for housing, all in the MDRL, MDRH, and HDR zones. Table A- 2 reduces the capacity estimate by 125 units, resulting in a capacity of 606 units on land within the city limits.

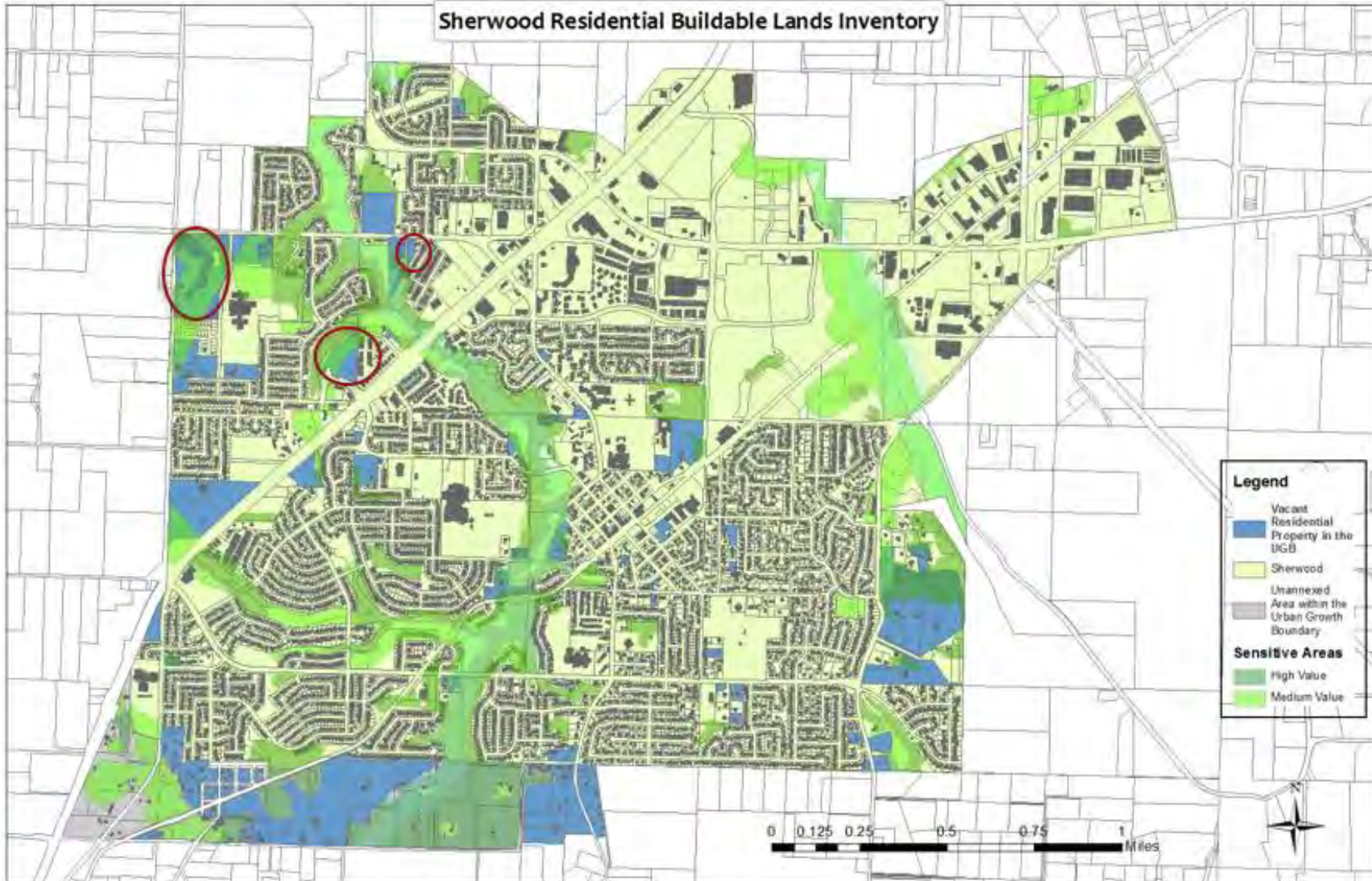
Table A- 2.. Revised capacity based on historical development densities accounting for building permits issued in 2015 to 2017, dwelling units, 2017

Zone	Capacity based on		Revised Capacity
	Historical Development Densities	Building Permits Issued 2015 to 2017	
Land within City Limits			
VLDR	69		69
VLDR_PUD	3		3
LDR	144		144
MDRL	88	24	64
MDRH	161	27	134
HDR	266	74	192
Subtotal	731	125	606

Source: Sherwood buildable lands inventory; Sherwood zoning code; Analysis of historical development densities; and Analysis by ECONorthwest

Map A-1 shows vacant and partially vacant land in Sherwood. Notable areas where development has occurred since 2015 are circled in red on Map 1. In total, 125 new single-family detached units were permitted between January 1, 2015 and October 31, 2017.

Map A-1. Inventory of suitable buildable residential land, net acres, Sherwood city limits and areas within the UGB, 2014



Source: City of Sherwood

Appendix B. Trends Affecting Housing Need in Sherwood

HISTORICAL AND RECENT DEVELOPMENT TRENDS

Analysis of historical development trends in Sherwood provides insights into how the local housing market functions. The intent of the analysis is to understand how local market dynamics may affect future housing—particularly the mix and density of housing by type. The housing mix and density by type are also key variables in forecasting future land need. The specific steps are described in Task 2 of the DLCD *Planning for Residential Lands* Workbook:

- Determine the time period for which the data must be gathered.
- Identify types of housing to address (at a minimum, all needed housing types identified in ORS 197.303).
- Evaluate permit/subdivision data to calculate the actual mix, average actual gross density, and average actual net density of all housing types.

The period used in the analysis of housing density and mix is 2000 to 2014, which includes both times of high housing production and times of low housing production. This reasons for choosing this period were: (1) the 2000 to 2014 period includes more than one economic cycle, with extreme highs and extreme lows in the housing market and (2) data prior to 2005 was less easily available and obtaining data for 2000 to 2004 required a considerable amount of work by City staff to compile the data.

The housing needs analysis presents information about residential development by housing types. For the purposes of this study, we grouped housing types based on: (1) whether the structure is stand-alone or attached to another structure and (2) the number of dwelling units in each structure. The housing types used in this analysis are:

- **Single-family detached:** single-family detached units and manufactured homes on lots and in mobile home parks.
- **Single-family attached:** all structures with a common wall where each dwelling unit occupies a separate lot, such as row houses or townhouses.

Multifamily: all attached structures other than single-family detached units, manufactured units, or single-family attached units.

These categories of housing type were chosen for the analysis because they meet the requirements of needed housing types in ORS 197.303.³⁵

Data used in this analysis

Throughout this analysis, we use data from multiple well-recognized and reliable data sources. One of the key sources for data about housing and household data is the U.S. Census. This report primarily uses data from two Census sources:

- The **Decennial Census**, which is completed every ten years and is a survey of all households in the U.S. The Decennial Census is considered the best available data for information such as demographics (e.g., number of people, age distribution, or ethnic or racial composition); household characteristics (e.g., household size and composition); and housing occupancy characteristics. As of the 2010 Decennial Census, it does not collect more detailed household information, such as income, housing costs, housing characteristics, and other important household information. Decennial Census data is available for 1990, 2000, and 2010.
- The **American Community Survey (ACS)**, which is completed every year and is a sample of households in the U.S. The 2009-2013 ACS sampled about 16.2 million households, or about 2.8% of the households in the nation. The ACS collects detailed information about households, such as demographics (e.g., number of people, age distribution, ethnic or racial composition, country of origin, language spoken at home, and educational attainment); household characteristics (e.g., household size and composition); housing characteristics (e.g., type of housing unit, year unit built, or number of bedrooms); housing costs (e.g., rent, mortgage, utility, and insurance); housing value; income; and other characteristics.

In general, this report uses data from the 2009-2013 ACS for Sherwood. Where information is available, we report information from the 2010 Decennial Census.

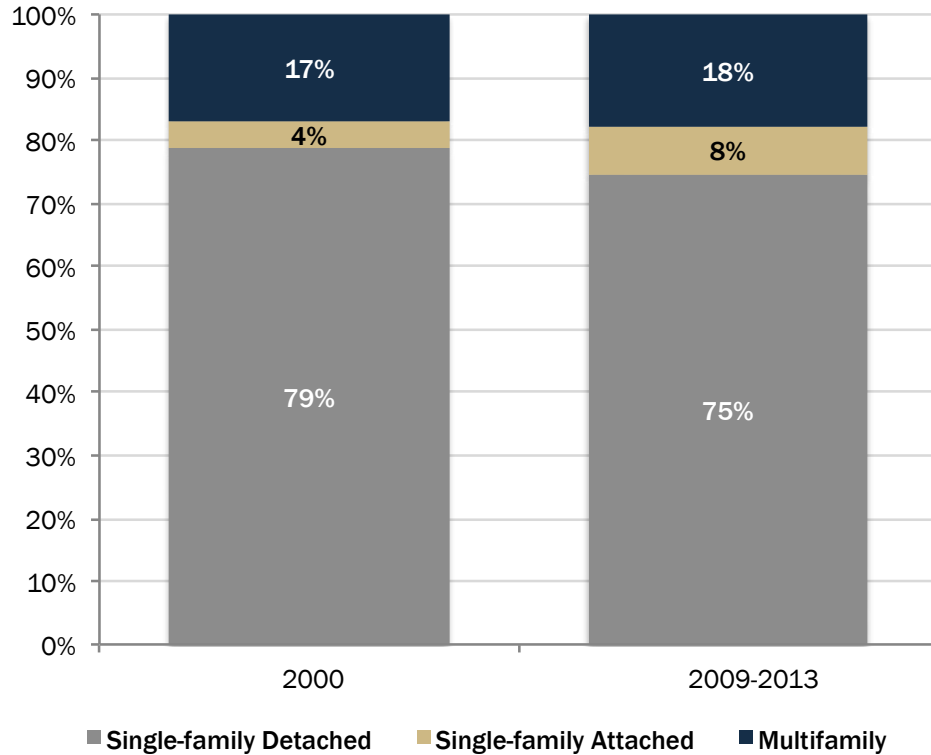
Trends in housing mix in Sherwood

According to the American Community Survey, Sherwood had more than 6,500 housing units in the 2009-2013 period. Figure B- 1 shows that Sherwood’s housing stock is predominantly single-family detached housing. In 2000, 79% of

³⁵ The analysis of development in Sherwood attempts to separate single-family detached and single-family attached housing. However, the City’s building permit system does not distinguish between these two types of housing. City staff manually identified single-family attached housing that was developed with a concentration of single-family attached housing. City staff were unable to identify small-scale, single-family attached development scattered throughout the city.

Sherwood’s housing stock was single-family detached and 77% was single-family detached in 2009-2013. The share of multifamily units increased from 17% of Sherwood’s housing stock in 2000 to 18% in 2009-2013.

Figure B- 1. Mix of Housing Types, Sherwood, 2000 to 2009-2013



Source: U.S. Census 2000 SF3 Table H030, American Community Survey 2009-2013, Table B25024.

Table B- 1 and Figure B- 2 show that the mix of housing developed over the 2000 to 2014 period was predominantly single-family housing (including single-family detached, single-family attached, and manufactured housing), accompanied by intermittent growth in multifamily.

Over the entire 2000 to 2014 period, Sherwood issued permits for nearly 2,225 dwelling units, with about 148 permits issued per year. About 69% of dwellings permitted were single-family detached, 9% were single-family attached, and 23% were multifamily.

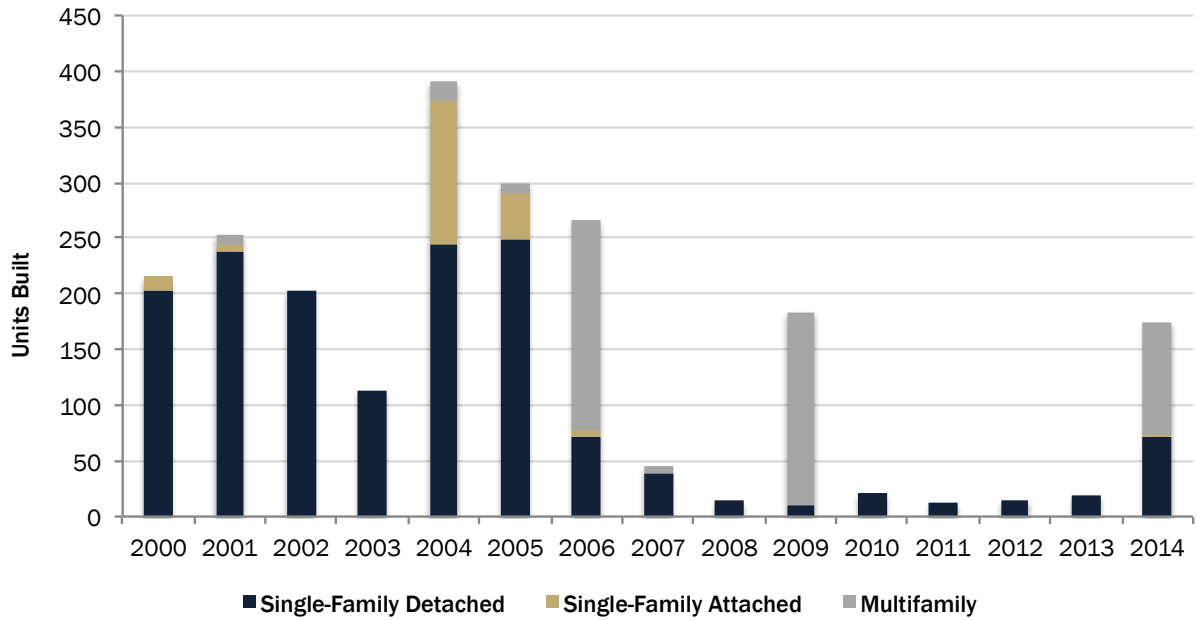
In addition, 125 units were permitted during the January 1, 2015 to October 31, 2017 period. All units permitted were single-family detached. These permits are not shown in Table B- 1 and Figure B- 2.

Table B- 1. Building permits by type of unit, Sherwood, 2000-2014

Housing Type	New Units Permitted	Average of New Units Permitted Annually	Mix of New Units
Single-Family Detached	1,525	102	69%
Single-Family Attached	196	13	9%
Multifamily	504	34	23%
Total	2,225	148	100%

Source: City of Sherwood Building Permit Database.
 Notes: Single-Family Detached includes manufactured housing.

Figure B- 2. Building permits by type of unit, Sherwood, 2000 to 2014

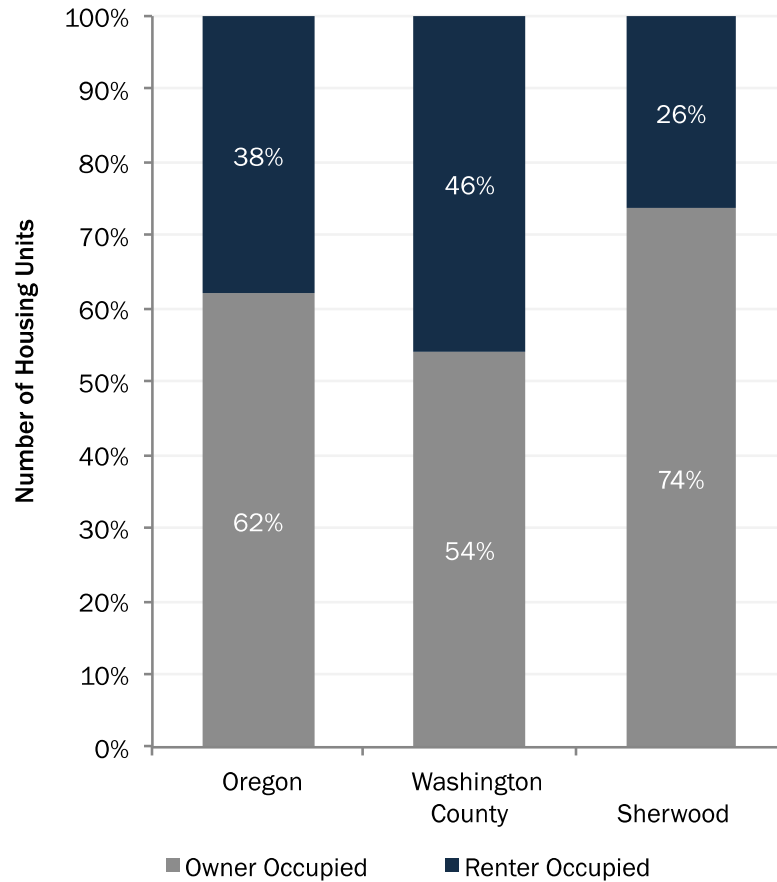


Source: City of Sherwood Building Permit Database.
 Notes: Single-Family Detached includes manufactured housing.

Trends in Tenure

Figure B- 3 shows housing tenure in Oregon, Washington County, and Sherwood for the 2009-2013 period. Sherwood has a higher rate of ownership (74%) than the county (54%) and the state (62%).

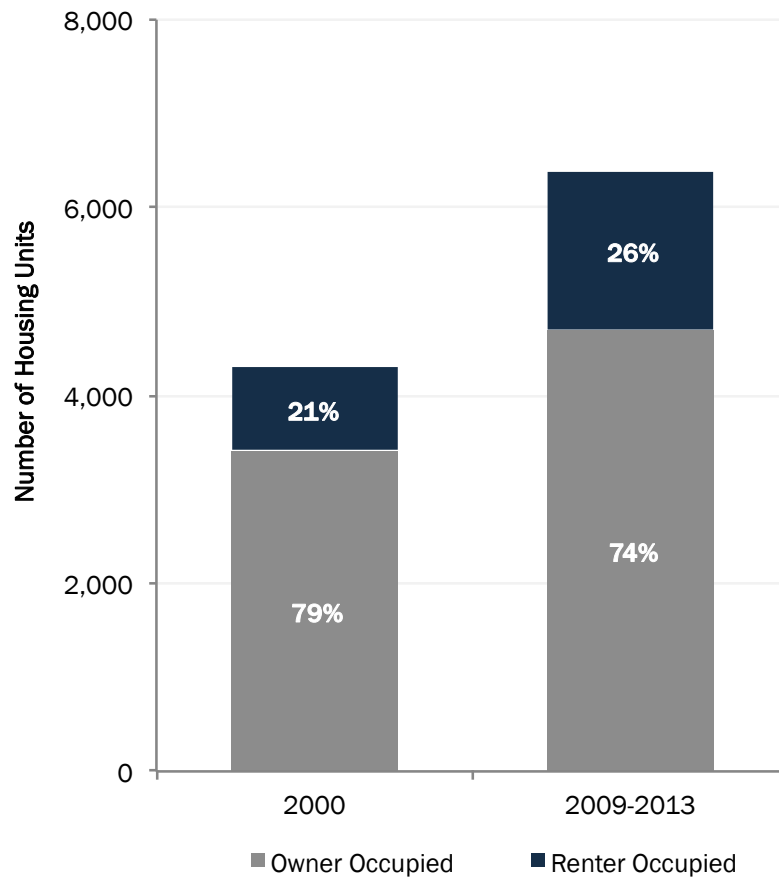
Figure B- 3. Housing Tenure, Oregon, Washington County, Sherwood, 2009-2013



Source: American Community Survey 2009-2013, Table B25003.

Figure B- 4 shows change in tenure (owner versus renter-occupied housing units) for the City of Sherwood over the 2000 to 2009-2013 period. The overall homeownership rate declined, from 79% to 74% between 2000 to 2009-2013, while renting increased by 5%. This change is consistent with national and statewide trends in homeownership.

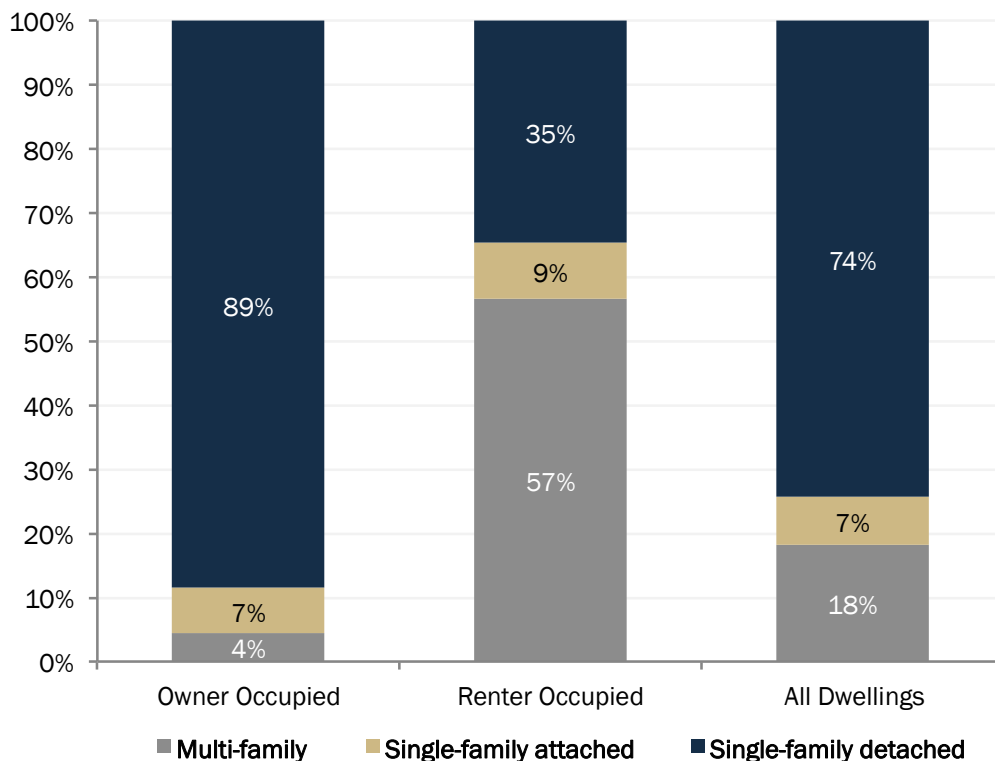
Figure B- 4. Tenure, occupied units, Sherwood, 2000 to 2009-2013



Source: U.S. Census 2000 SF3 Table H032, American Community Survey 2009-2013 Table B25003.

Figure B- 5 shows the types of dwelling in Sherwood in 2009-2013 by tenure (owner/renter-occupied). The results indicate that in Sherwood, single-family housing types are most frequently owner-occupied (70% of all housing is single-family, owner-occupied housing) and multifamily housing is most frequently renter-occupied (15% of all housing is multifamily renter-occupied housing).

Figure B- 5. Housing units by type and tenure, Sherwood, 2009-2013



Source: American Community Survey 2009-2013 Table B25032.

Housing Vacancy Rates

Table B- 2 shows vacancy rates in Oregon, Multnomah, Washington, and Clackamas counties, and Sherwood between 2000 and 2009-2013. Vacancy rates increased in Oregon, and Clackamas counties, but fell in Multnomah and Washington counties, and in Sherwood. As the 2009-2013 period, Sherwood had a relatively low vacancy rate (2.7%) compared to the regional counties, whose rates ranged from 5.5% to 7.0%, and to Oregon (9.6%).

Table B- 2. Housing vacancy rate, Oregon, Multnomah, Washington and Clackamas Counties, and Sherwood, 2000 to 2009-2013

	Oregon	Multnomah County	Washington County	Clackamas County	Sherwood
2000	8.2%	6.4%	5.7%	5.5%	3.6%
2009 - 2013	9.6%	5.9%	5.5%	7.0%	2.7%
Change 2000 to 2009-2013	17.1%	-7.5%	-3.6%	28.3%	-24.7%

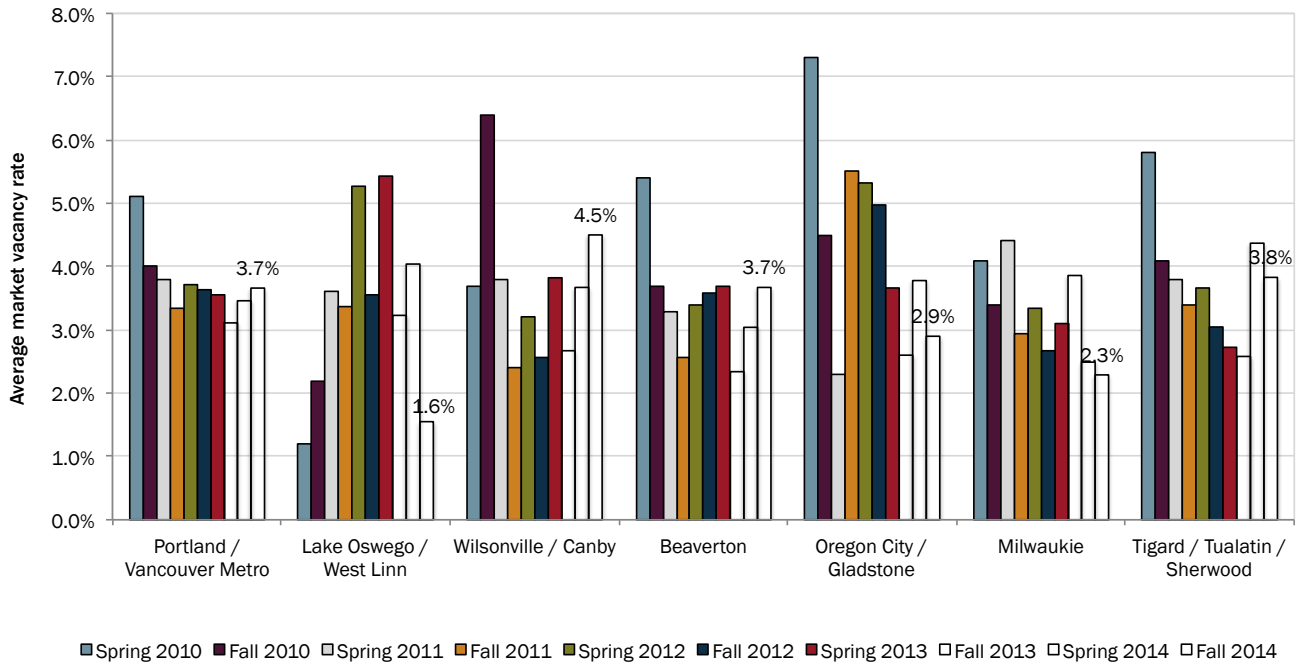
Source: U.S. Census 2000 SF1 Table H003, American Community Survey 2009-2013 Table B25002.

Multifamily NW tracks trends in the Portland area rental market and publishes a semi-annual report. Figure B- 6 shows average market vacancy rates for apartments for the Portland/Vancouver region and selected submarkets in the south-central Portland Region. The vacancy rates in the

Tigard/Tualatin/Sherwood area varied from a high of 5.8% in Spring 2010 to a low of 2.6% in Fall 2013. The vacancy rate in this area was within 1% (above or below) the vacancy rate for the Portland /Vancouver metro area. According to the Fall 2014 Apartment Report, the vacancy rate for apartments in the Tigard/Tualatin/Sherwood area was 3.8%, slightly higher than the regional average of 3.7%.

Multifamily vacancy rates vary, in part, as a result of building new multifamily developments. When a new multifamily development comes on the market, it may take months (or longer) for the new units to be absorbed into the housing market through rental of new units. During this absorption period, the vacancy rate will generally increase for multifamily housing.

Figure B- 6. Average market vacancy rates for apartments, Portland/Vancouver Metro area and selected submarkets, 2010-2014



Multifamily NW Apartment Reports, Spring 2010 – Fall 2014.

Density

Housing density is the density of housing by structure type, expressed in dwelling units per net or gross acre.³⁶ The U.S. Census does not track residential development density.

This study analyzes housing density based on new residential development within Sherwood between 2000 and 2014, similar to the analysis of achieved mix. The analysis of housing density uses data from the City of Sherwood’s building permits database.

Table B- 3 shows that development that was permitted between 2000 and 2014 achieved overall average densities of 8.2 dwelling units per net acre. The majority of permitted housing was single-family detached housing, which averaged 6.5 dwelling units per net acre. Multifamily housing achieved an average of 20.5 and single-family attached achieved an average of 17.9 dwelling units per net acre.

Table B- 3. Estimated density by type of unit, net acres, Sherwood, 2000-2014

Housing Type	New and Existing Units	Acres	Density (dwelling unit per acre)
Single-Family Detached	1,641	251	6.5
Single-Family Attached	196	11	17.9
Multifamily	504	25	20.5
Total	2,341	286	8.2

Source: City of Sherwood Building Permit Database.

Note: Single-Family Detached includes manufactured housing

Note: The number of new single-family detached housing is higher in Table B- 3 than in Table B- 1 because Table B- 3 includes 116 existing manufactured dwellings in manufactured housing parks. These dwellings were included as part of the density calculation to correctly calculate the densities of manufactured housing in the manufactured housing parks with one or more newly permitted dwellings over the 2000 to 2014 period.

Table B-4 shows an analysis of residential development density (dwelling units per net acre) over the 15-year period for Sherwood by zoning designation. Table B-4 shows:

- Ninety-two percent of residential development was in residential zones, which had an overall density of 7.8 dwelling units per net acre.
- Density in residential zones varied from 2.9 dwelling units per net acre in the Very Low Density Residential zone to 19.1 dwelling units per net acre in the High Density Residential zone.

³⁶ OAR 660-024-0010(6) uses the following definition of net buildable acre. “Net Buildable Acre” “...consists of 43,560 square feet of residentially designated buildable land after excluding future rights-of-way for streets and roads.” While the administrative rule does not include a definition of a gross buildable acre, using the definition above, a gross buildable acre will include areas used for rights-of-way for streets and roads. Areas used for rights-of-way are considered unbuildable.

- Density in the Low Density Residential zone averaged 6.5 dwelling units per net acre. Development in Planned Unit Developments (PUD) in this zone achieved an average of 7.6 dwelling units per net acre, which explains the relatively high density in this zone.
- Density in Commercial and Mixed-Use zones averaged 15.6 dwelling units per net acre.

Table B-4. Housing density by Zone, net acres, Sherwood, 2000 to 2014

Zone	New and Existing Units	Acres	Density (dwelling unit per acre)
Residential Zones			
Very Low Density Residential	53	18	2.9
Low Density Residential	807	124	6.5
PUD	487	64	7.6
Non-PUD	320	59	5.4
Medium Density Residential-High	301	39	7.7
Medium Density Residential-Low	368	60	6.1
High Density Residential	605	32	19.1
Residential subtotal	2,134	273	7.8
Commercial and Mixed Use Zones			
Office Commercial	150	6	24.4
Mixed-use Commercial and Condo	55	7	7.9
Retail Commercial	2	0	17.4
Commercial subtotal	207	13	15.6
Total	2,341	286	8.2

Source: City of Sherwood Building Permit Database

NATIONAL HOUSING TRENDS

The overview of national, state, and local housing trends builds from previous work by ECONorthwest, Urban Land Institute (ULI) reports, and conclusions from *The State of the Nation's Housing, 2014* report from the Joint Center for Housing Studies at Harvard University.³⁷ The Harvard report summarizes the national housing outlook as follows:

“With promising increases in home construction, sales, and prices, the housing market gained steam in early 2013. But when interest rates notched up at mid-year, momentum slowed. This moderation is likely to persist until job growth manages to lift household incomes. Even amid a broader recovery, though, many hard-hit communities still struggle and millions of households continue to pay excessive shares of income for housing.”

Several challenges to a strong domestic housing market remain. Demand for housing follows trends in jobs and incomes, which are taking longer to recover than in previous cycles. While trending downward, the numbers of underwater homeowners, delinquent loans, and vacancies remain high. *The State of the Nation's Housing* report projects that it will take several years for market conditions to return to normal and, until then, the housing recovery will likely unfold at a moderate pace.

Trends in housing development

The single-family housing market began strong in 2013, but by the arrival of 2014, housing starts were down 3% and new home sales had fallen 7% from the year before. The *State of the Nation's Housing Report* attributes most of the decline to increases in mortgage interest rates and meager improvements in employment and wages.

Thirty-year mortgage interest rose in 2014, bucking a downward trend. After falling to a low of around 3.4% in 2013, rates rose to around 5% in 2014. The rise of mortgage interest rates increased the cost of investment in a home and contributed to the fall in the rate of housing starts. In addition to the rise of mortgage interest rates, “steady but unspectacular job growth” presented a fundamental obstacle to the housing market’s progress, according to the report. Employment grew, but slowly, and incomes continued to fall. As long as job and wage growth remain slow, potential homebuyers will not create sufficient demand for robust growth in the housing market.

³⁷ The State of the Nation's Housing, Harvard University, 2014, accessed January 2014.
http://www.jchs.harvard.edu/research/state_nations_housing

Other recent trends in the housing market included: home inventories remained low (homes now spend less than six months on the market), investors purchased fewer distressed properties, the renter market grew, and a larger share of young people chose to live with their parents.

Supplies of existing homes for sale remained low in 2013, which may reflect the unwillingness or inability of owners to sell at current prices (Figure A- 1). As home prices return to levels that are more acceptable to sellers, more homes will go on the market.

Figure A- 1. Inventories of Homes for Sale Against Months Supply, 2002-2013

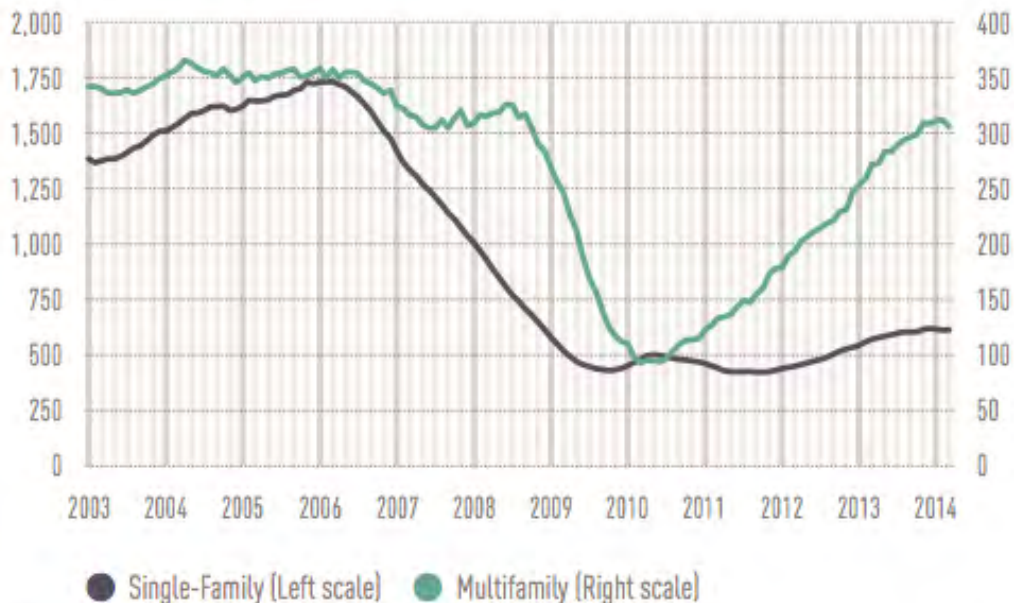


Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

Multifamily home construction continued robust growth for a third consecutive year. Multifamily starts increased 25% to over 300,000 in 2013, approaching pre-recession levels of around 350,000. In contrast to strong multifamily housing growth, single-family home starts grew slowly, at only about 15%, well below pre-recession levels of production: less than 620,000 starts in 2013, compared to over 1.5 million in 2006. These growth trends are shown in Figure A- 2.

Figure A- 2. Housing Starts, 2003-2014

Starts (Thousands of units)

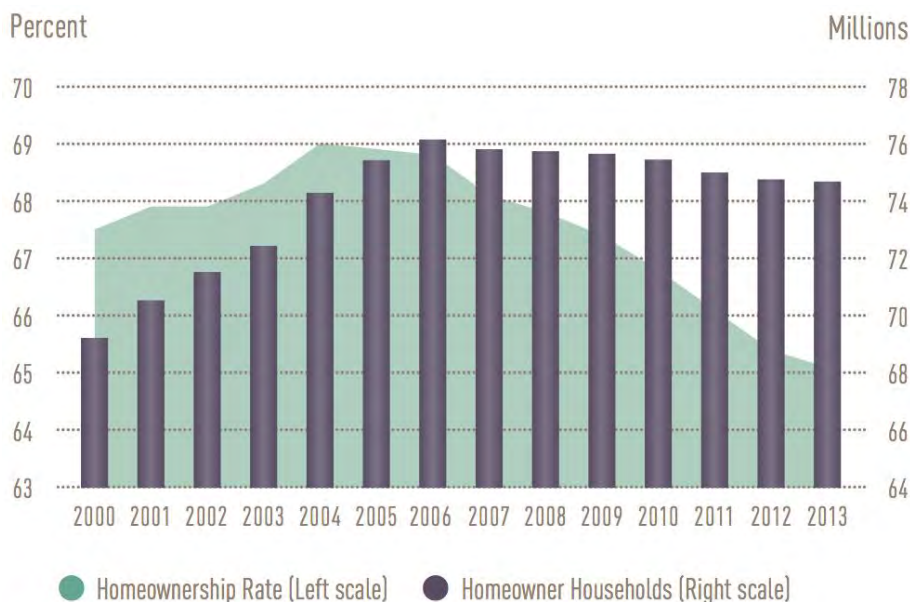


Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

Long run trends in home ownership and demand

The housing market downturn and foreclosure crisis had an immediate and potentially lasting impact on homeownership. After 13 successive years of increases, the national homeownership rate declined each year from 2005 to 2013, and is currently at approximately 65%. However, while the rate declined again in 2013, it was the smallest drop since 2008. As seen in Figure A- 3, the US homeownership rate fell only 0.3 percentage points.

Figure A- 3. Homeownership Rates and the Number of Homeowner Households, 2000-2013



Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The long-term market outlook shows that homeownership is still the preferred tenure. While further homeownership gains are likely during the next decade, they are not assured. Additional increases depend, in part, on the effect of foreclosures on potential owner’s ability to purchase homes in the future, as well as whether the conditions that have led to homeownership growth can be sustained.

The Joint Center for Housing Studies indicates that demand for new homes could total as many as 13 million units nationally between 2015 and 2025. The location of these homes may differ from recent trends, which favored lower-density development on the urban fringe and suburban areas. The Urban Land Institute identifies the markets that have the most growth potential as “global gateway, 24-hour markets,” which are primary coastal cities with international airport hubs (e.g., Washington D.C., New York City, San Francisco, or Seattle). Development in these areas may be nearer city centers, with denser infill types of development.³⁸

The Joint Center for Housing Studies also indicates that demand for higher density housing types exists among certain demographics. They conclude that because of persistent income disparities, as well as the movement of the

³⁸ Urban Land Institute, “2011 Emerging Trends in Real Estate” and “2012 Emerging Trends in Real Estate”

Millennials into young adulthood, housing demand may shift away from single-family detached homes toward more affordable multifamily apartments, town homes, and manufactured homes.

Home rental trends

Nationally, the rental market continues to grow. In 2013, the number of households living in rental units increased by half a million, marking the ninth consecutive year of expansion. In addition to growth in rentals in 2013, the million-plus annual increases observed in 2011 and 2012 puts current growth rates on pace to easily surpass the record 5.1 million gain in the 2000s.

Rental markets across the country have been tightening, pushing up rents across the majority of markets. Rental vacancy rates also continued to drop in 2013, both nationwide and in most metros. The US rental vacancy rate stood at 8.3% in 2013 and, while this is the lowest level observed since 2001, this was still high relative to the 7.6% averaged in the 1990s.

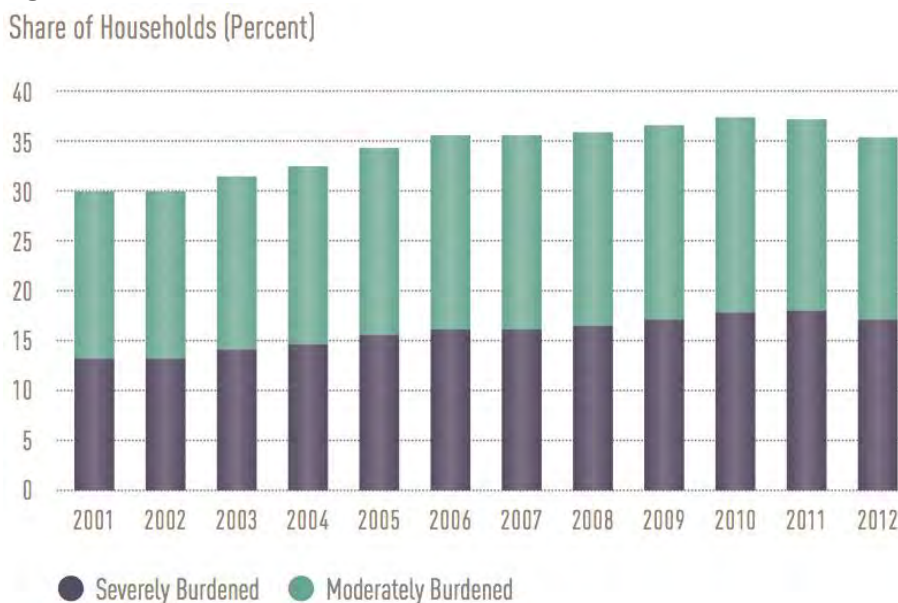
Over the longer term, the Joint Center for Housing expects demand for rental housing to continue to grow. Minorities will be the largest driver of rental demand because they are on average younger and less likely to own homes than whites. Demographics will also play a role. Growth in young adult households will increase demand for moderately priced rentals, in part because the oldest Millennials reached their late-20s around 2010. Meanwhile, growth among those between the ages of 45 and 64 will lift demand for higher-end rentals.

As the homeownership market recovers, the growth in renter households will likely slow. Since much of the increased demand for rental housing has been met through the conversion of single-family homes to rentals, future market adjustments may come from a return of these units to owner-occupancy. Additionally, the echo-boom generation should provide strong demand for rental units in the coming years.

Trends in housing affordability

Many homeowners pay a disproportionate share of their income on housing, with 35% of households in the U.S. who are cost burdened.³⁹ While the share of households that are cost burdened fell by about 4% in 2012, the share of households that were cost burdened increase between 2001 and 2011 (Figure A-4). More than 15% of U.S. households are severely cost burdened.

Figure A- 4. Share of Cost-burdened Households, 2001-2012



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The Joint Center for Housing Studies points to widening income disparities, decreasing federal assistance, and depletion of inventory through conversion or demolition as three factors exacerbating the lack of affordable housing. While the Harvard report presents a relatively optimistic long-run outlook for housing markets and for homeownership, it points to the significant difficulties low- and moderate-income households face in finding affordable housing and preserving the affordable units that do exist.

According to the Joint Center for Housing Studies, these statistics understate the true magnitude of the affordability problem because they do not capture the tradeoffs people make to hold down their housing costs. For example, these figures exclude people who live in crowded or structurally inadequate housing units. They also exclude the growing number of households that move to

³⁹ Households are considered cost burdened if they spent 30% or more of their gross income on housing costs. Households who spent 50% or more of their gross income on housing costs are considered severely cost burdened.

locations distant from work where they can afford to pay for housing, but must spend more for transportation to work. Among households in the lowest expenditure quartile, those living in affordable housing, spent an average of \$100 more on transportation per month in 2010 than those who are severely housing cost-burdened. With total average monthly outlays of only \$1,000, these extra travel costs could amount to roughly 10 percent of the entire household budget.

Demographic trends in housing preference

Demographic changes likely to affect the housing market and homeownership are:

- The aging of the Baby Boomers, the oldest of whom were in their late-60's in 2012.
- Housing choices of younger Baby Boomers, who were in their early to mid-50's in 2010.
- The children of Baby Boomers, called the Millennials, who ranged from their late teens to late twenties in 2012.
- Immigrants and their descendants, who are a faster growing group than other households in the U.S.⁴⁰

The aging of the Baby Boomers will affect housing demand over the next decades. People prefer to remain in their community as they age.⁴¹ The challenges that aging seniors face in continuing to live in their community include: changes in healthcare needs, loss of mobility, the difficulty of home maintenance, financial concerns, and increases in property taxes.⁴² Not all of these issues can be addressed through housing or land use policies.

Communities can address some of these issues through adopting policies that:

- Diversify housing stock to allow development of smaller, comparatively easily-maintained houses in single-family zones, such as single-story townhouses, condominiums, and apartments.
- Allow commercial uses in residential zones, such as neighborhood markets.
- Allow a mixture of housing densities and structure types in single-family zones, such as single-family detached, single-family attached, condominiums, and apartments.

⁴⁰ Urban Land Institute, "2011 Emerging Trends in Real Estate"

⁴¹ A survey conducted by the AARP indicates that 90% of people 50 years and older want to stay in their current home and community as they age. See <http://www.aarp.org/research>.

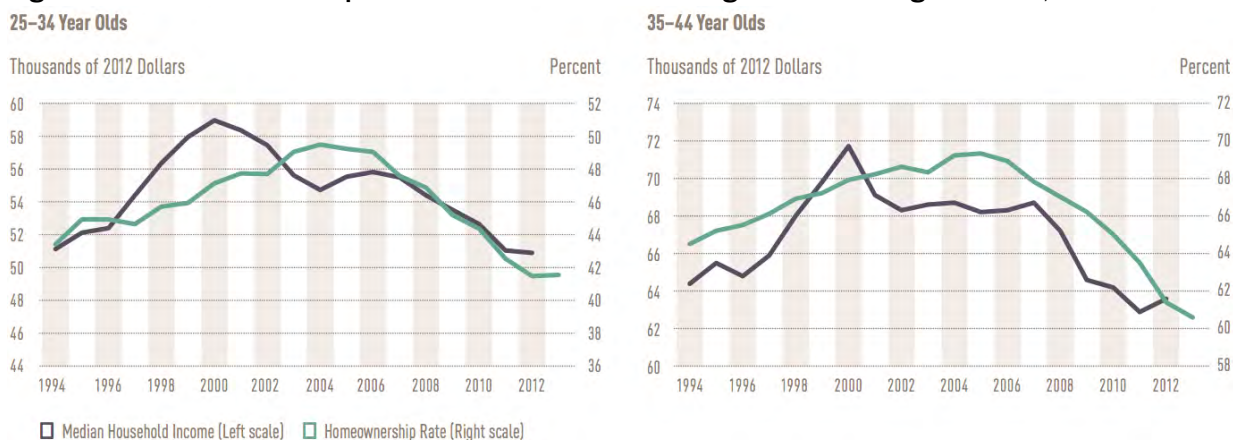
⁴² "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

- Promote the development of group housing for seniors that are unable or do not choose to continue living in a private house. These facilities could include retirement communities for active seniors, assisted living facilities, or nursing homes.
- Design public facilities so that they can be used by seniors with limited mobility. For example, design and maintain sidewalks so that they can be used by people in wheelchairs or using walkers.

Household formation fell to around 600,000 to 800,000 in the 2007-2013 period, well below the average rate of growth in previous decades. Despite sluggish growth recently, several demographic factors indicate increases in housing growth to come. The Millennial generation (those born after 1985) is the age group most likely to form the majority of new households. While low incomes have kept current homeownership rates among young adults below their potential, Millennials may represent pent-up demand that will release when the economy fully recovers. As Millennials age, they may increase the number of households in their 30s by 2.4 to 3.0 million over the through 2025.

While the population of young adults between 20 and 29 years grew in the 2003-2013 decade by more than 4 million from the previous decade, the rate at which members of this age group formed their own households fell. As a result, household growth has not kept pace with overall population growth. Even if today's low household formation rates were to persist, however, the aging of the Millennials into their 30s will likely raise household headship rates due to lifecycle effects. About 60% of all 35-44 year-olds head an independent household, compared with less than 42% of all 25-34 year-olds. Thus, the Millennial generation, more populous than the Baby Boomers, is expected to be the primary driver of new household formation over the next twenty years.

Figure A- 5. Homeownership Rates and Incomes for Young and Middle-Aged Adults, 1994-2012



Source: The State of The Nation's Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

It is currently unclear what housing choices the Millennials will make. Some studies suggest that their parents' negative experience in the housing market, with housing values dropping so precipitously and so many foreclosures, will make Millennials less likely to become homeowners. In addition, high unemployment and underemployment may decrease Millennials' earning power and ability to save for a down payment. It is not clear, however, that Millennials' housing preferences will be significantly different from their parents over the long run.

Recent surveys suggest that as Millennials age and form families, they will increasingly prefer to live in single-family homes in suburban locations. A recent survey by the National Association of Homebuilders finds that roughly three-quarters of Millennials want to live in a single-family home and would prefer to live in a suburb, compared to just 10% that would prefer to live in a city center.

Other recent surveys suggest that Millennials prefer to live in walkable communities, where there are alternatives to driving. According to surveys from the American Planning Association and Transportation For America, at least three quarters of Millennials want their city to offer opportunities to live and work without relying on a car. While Millennials may choose housing that satisfies these preferences, the cost of living will place parameters on their housing choices. According to the APA survey, 71% percent of Millennials rated affordable housing as a high priority for metro areas.

In coming years Millennials will pursue homes that provide a combination of space, "walkability," and affordability. They will demonstrate these preferences

in the market soon: according to the APA survey, more than half of Millennials consider themselves at least somewhat likely to move within the next five years.⁴³

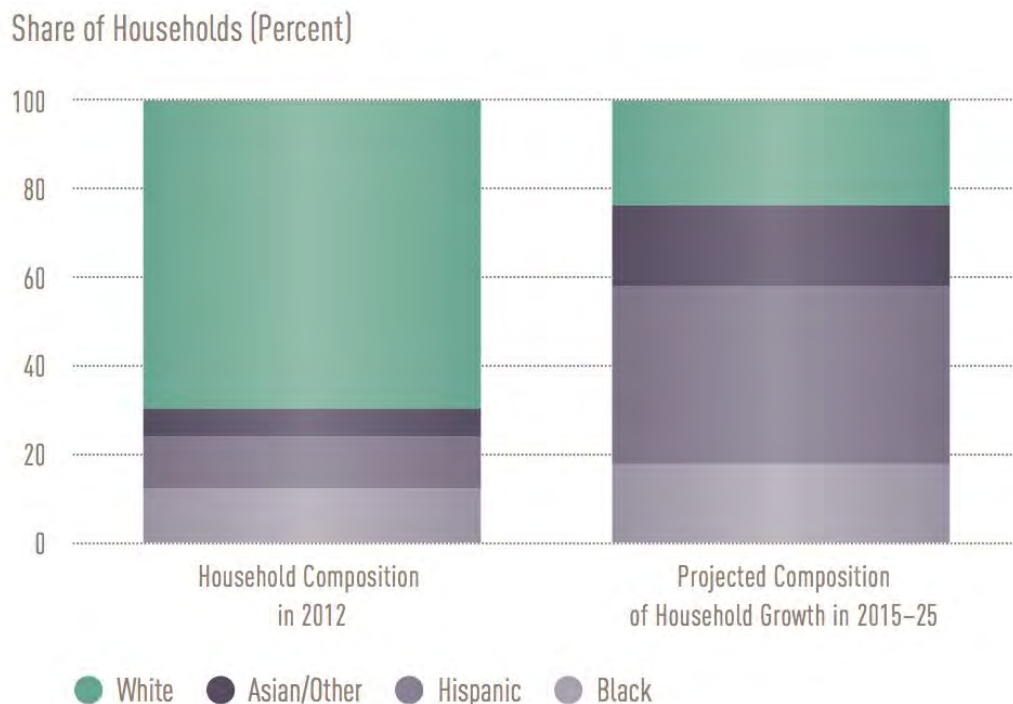
From 2004 to 2013, homeownership rates for 25-34 year olds and 35-44 year olds fell by around 8% and 9% respectively, with ownership rates for people 25 to 54 years old at the lowest point since recordkeeping started in 1976 (Figure A- 5). Nonetheless, the 25 and 34 year-old age group still makes up the majority of first-time homebuyers. Young adults in this cohort make up 54.3 percent of first-time homebuyers. Their majority among first-time homebuyers means that their ability to buy homes will play an important role in growth of the housing market in the near future.

The fall in homeownership among young adults results largely from the decline in income. Approximately 6 million more individuals between 20 and 29 years earned less than \$25,000 than in 2003, while the number of those earning between \$25,000 and \$50,000 fell by over a million. Furthermore, the share of households younger than 30 years with student loan debt increased by more than 7% since 2007, from 33.9% to 41.0%.

According to the Joint Center for Housing Studies, immigration and increased homeownership among minorities will also play a key role in accelerating household growth over the next 10 years. Current Population Survey estimates indicate that the number of foreign-born households rose by nearly 400,000 annually between 2001 and 2007, and accounted for nearly 30 percent of overall household growth. Beginning in 2008, the influx of immigrants was stanchied by the effects of the Great Recession. After a period of declines, however, the foreign born are again contributing to household growth. Census Bureau estimates of net immigration in 2011–12 indicate an increase of 110,000 persons over the previous year, to a total of nearly 900,000. Furthermore, as shown in Figure A- 6, the Harvard report forecasts that minorities will make up about 76% of the household growth between 2015 and 2025. The greater diversity among young adults partly explains the increased share of growth that will belong to minorities. For example, about 45% of Millennials are minorities, compared to 28% of Baby Boomers.

⁴³ The American Planning Association, "Investing in Place; Two generations' view on the future of communities." 2014. "Survey Says: Home Trends and Buyer Preferences," National Association of Home Builders International Builders Show, accessed January, 2015, <http://www.buildersshow.com/Search/isesProgram.aspx?id=17889&fromGSA=1>. "Access to Public Transportation a Top Criterion for Millennials When Deciding Where to Live, New Survey Shows," Transportation for America, accessed January 2015, http://t4america.org/wp-content/uploads/2014/04/Press-Release_Millennials-Survey-Results-FINAL-with-embargo.pdf.

Figure A- 6. Share of Households by Racial/Ethnic Group, 2012 and 2015-25



Source: The State of The Nation’s Housing, 2014, The Joint Center for Housing Studies of Harvard University, p. 10. <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/sonhr14-color-full.pdf>.

The growing diversity of American households will have a large impact on the domestic housing markets. Over the coming decade, minorities will make up a larger share of young households, and constitute an important source of demand for both rental housing and small homes. This makes the growing gap in homeownership rates between whites and blacks and whites and Hispanics troubling. Since 2001, the difference in homeownership rates between whites and blacks rose from 25.9 to 29.5 in 2013. Similarly the gap between white and Hispanic homeownership rates increased since 2008, from below 26%, to over 27% in 2013. This growing gap between racial and ethnic groups will hamper the country’s homeownership rate as minority households constitute a larger share of the housing market.

Trends in Housing Characteristics

The U.S Census Bureau’s Characteristics of New Housing Report (2013) presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several long-term trends in the characteristics of housing are evident from the New Housing Report:⁴⁴

⁴⁴ <https://www.census.gov/construction/chars/highlights.html>

- **Larger single-family units on smaller lots.** Between 1990 and 2013 the median size of new single-family dwellings increased 25% nationally from 1,905 sq. ft. to 2,384 sq. ft., and 19% in the western region from 1,985 sq. ft. to 2,359 sq. ft. Moreover, the percentage of units fewer than 1,400 sq. ft. nationally decreased by almost half, from 15% in 1999 to 8% in 2012. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 29% of new one-family homes completed in 2013. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2013, the percentage of lots less than 7,000 sq. ft. increased from 27% of lots to 36% of lots.
- **Larger multifamily units.** Between 1999 and 2013, the median size of new multiple family dwelling units increased by 2% nationally and 3% in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 32% in 2013 nationally, and increased from 25% to 32% in the western region.
- **More household amenities.** Between 1990 and 2013, the percentage of single-family units built with amenities such as central air conditioning, 2 or more car garages, or 2 or more baths all increased. The same trend in increased amenities is seen in multifamily units.

During the recession, the trend towards larger units with more amenities faltered. Between 2007 and 2009, for example, the median size of new single-family units decreased by 6% throughout the nation, including in the West. In addition, the share of new units with amenities (e.g., central air conditioning, fireplaces, 2 or more car garages, or 2 or more bath) all decreased slightly during this time. With the recovery, however, housing sizes have been increasing annually; median housing sizes increased by 12% between 2009 and 2013 nationwide, and 10% in the western region. The short term, post-recession trends regarding amenities are mixed, but generally appear to be increasing (albeit more slowly than housing sizes).

It appears that the decreases in unit size and amenities were a short-term trend, resulting from the housing crisis. However, numerous articles and national studies suggest that these changes may indicate a long-term change in the housing market, resulting from a combination of increased demand for rental units because of demographic changes (e.g., the aging of the baby boomers, new immigrants, and the echo-boomers), as well as changes in personal finance and availability of mortgages.⁴⁵

These studies may be correct and the housing market may be in the process of a long-term change, with some fluctuations over time in unit size and amenities.

⁴⁵ These studies include "Hope for Housing?" by Greg Filsram in the October 2010 issue of Planning and "The Elusive Small-House Utopia" by Andrew Rice in the New York Times on October 15, 2010.

On the other hand, long-term demand for housing may not be substantially affected by the current housing market. The echo-boomers and new immigrants may choose single-family detached housing and mortgages may become easier to obtain.

Studies and data analysis have shown a clear linkage between demographic characteristics and housing choice. This is more typically referred to as the linkage between lifecycle and housing choice and is documented in detail in several publications. Analysis of data from the Public Use Microsample (PUMS) in the 2000 Census helps to describe the relationship between selected demographic characteristics and housing choice. Key relationships identified through this data include:

- Homeownership rates increase as income increases;
- Homeownership rates increase as age increases;
- Choice of single-family detached housing types increases as income increases;
- Renters are much more likely to choose multiple family housing types than single-family; and
- Income is a stronger determinate of tenure and housing type choice for all age categories.

STATE DEMOGRAPHIC TRENDS

Oregon's 2011-2015 *Consolidated Plan* includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.⁴⁶ The plan concludes that, "Oregon's changing population demographics are having a significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Facing housing cost increases due to higher unemployment and lower wages, when compared to the nation.
- Experiencing higher foreclosure rates since 2005, compared with the previous two decades.
- Losing federal subsidies on about 8% of federally subsidized Section 8 housing units.
- Losing housing value throughout the State.
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010.

⁴⁶ http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

- Increasingly older, more diverse, and has less affluent households.⁴⁷

REGIONAL AND LOCAL DEMOGRAPHIC TRENDS

Regional demographic trends largely follow the statewide trends discussed above, but provide additional insight into how demographic trends might affect housing in Sherwood. Demographic trends that might affect the key assumptions used in the baseline analysis of housing need are: (1) the aging population, (2) changes in household size and composition, and (3) increases in diversity. This section describes those trends.

The following section presents data tables. In a few places, additional explanatory text is included. For the most part, the text describing the implications of the tables is in the main part of the document.

Growing population

Sherwood has a growing population. Table B- 5 shows population growth in the U.S., Oregon, the Portland Region, Washington County, and Sherwood, between 1990 and 2013.

Table B- 5. Population in U.S., Oregon, the Portland Region, Washington County, and Sherwood, 1990-2013

Area	Population			Change 1990 to 2013		
	1990	2000	2013	Number	Percent	AAGR
U.S.	248,709,873	281,421,906	311,536,594	62,826,721	25%	1.0%
Oregon	2,842,321	3,421,399	3,919,020	1,076,699	38%	1.4%
Portland Region	1,174,291	1,444,219	1,693,600	519,309	44%	1.6%
Washington County	311,554	445,342	550,990	239,436	77%	2.5%
Sherwood	3,093	11,963	18,575	15,482	501%	8.1%

Source: US Census Bureau Decennial Census 1990 and 2000; Portland State University, Population Research Center
 Note: AAGR is average annual growth rate.

The housing needs analysis in this report is based on a coordinated household forecast from Metro (the January 2016 2040 TAZ Forecast), which is a necessary prerequisite to estimate housing needs. The projection of household growth includes areas currently within the city limits, as well as areas currently outside the city limits that the City expects to annex for residential uses (most notably the Brookman area). We call these areas combined the “Sherwood planning area.”

Table B-6 presents Metro’s forecast for household growth and new housing development in the Sherwood planning area for the 2010 to 2040 period. The table shows Metro’s forecast for the Sherwood city limits, areas currently outside

⁴⁷ State of Oregon *Consolidated Plan 2011 to 2015*.

http://www.oregon.gov/ohcs/hd/hrs/consplan/2011_2015_consolidated_plan.pdf

the city limits that are expected to be annexed by 2040, which are together the Sherwood planning area. Table B-6 shows Metro’s forecast for the number of households in each of the following years:

- **2010.** Metro’s forecast uses an estimate of the number of households in 2010 as the starting point of the forecast.
- **2015.** Estimate of number of households in 2015.
- **2040.** Metro’s forecast estimates household growth of 2,078 dwelling units or 30%, by 2040. Part of the forecasting process was providing jurisdictions an opportunity to review and comment on the forecast for growth through 2040.

Table B-6 also shows Metro’s forecast for the Sherwood West area, which is forecast to grow by 4,157 dwelling units by 2040. While Metro forecasts that this development will occur over the 2015 to 2040 period, the discussion of timing of this development in the Concept Planning process suggests that Sherwood West may take 50 years (2015 to 2065) to develop the 4,157 dwelling units in Metro’s forecast.

Table B-6. Metro forecast for housing growth, Sherwood planning area, 2010 to 2040

Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2010	6,476	242	6,718	270
2015	6,784	226	7,010	293
2040	7,653	1,435	9,088	4,811
Change 2015 to 2040				
Households	869	1,209	2,078	4,518
Percent	13%	535%	30%	1542%
AAGR	0.5%	7.7%	1.0%	11.8%

Source: Metro 2040 TAZ Forecast by Households, January 2016

Note: The Sherwood City Limits are the following Metro Transportation Analysis Zones (TAZs): 989 to 997.

The Brookman area is predominantly in Transportation Analysis Zone 978, with a small area in 988.

Brookman is an area that the City expects to annex for residential growth over the planning period.

Sherwood West is parts of Transportation Analysis Zones 1428, 1429, and 1432.

Sherwood’s housing needs analysis must be based on a 20-year period, but Metro’s forecast describes growth over a 25-year period. Table B- 7 shows an extrapolation of Metro’s forecast for the 2018 to 2038 period. ECONorthwest extrapolated Metro’s forecast to 2018 based on the number of households in 2015 and the growth rate in the forecast between 2015 and 2040. We assumed that little to no growth happened in Sherwood West between 2015 and 2018, an

assumption that is supported by the relative lack of building permit activity in these areas.

Table B- 7 shows that the Sherwood planning area will add 1,653 new households between 2018 and 2038, with 697 new households inside the existing city limits and 956 new households in outside the current city limits in the Brookman Area.

Table B- 7. Extrapolated Metro forecast for housing growth, Sherwood planning area, 2018 to 2038

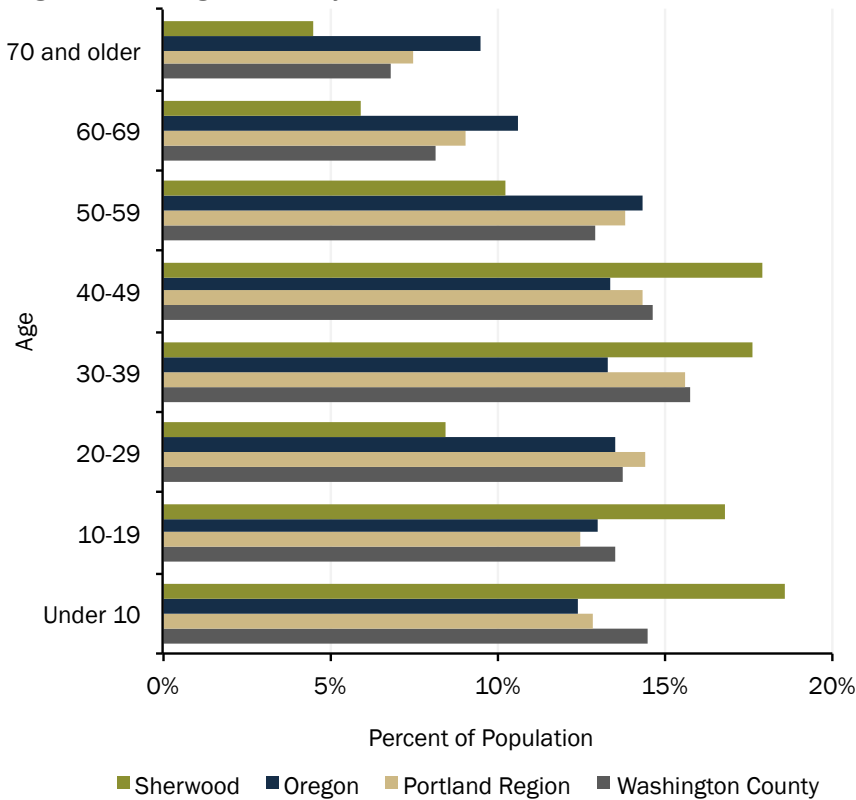
Year	Households			Sherwood West (50-Year Forecast)
	Sherwood City Limits	Brookman Area	Sherwood Planning Area	
2018	6,883	282	7,165	293
2038	7,580	1,238	8,818	4,450
Change 2015 to 2040				
Households	697	956	1,653	4,157
Percent	10%	339%	23%	1419%
AAGR	0.5%	7.7%	1.0%	14.6%

Source: Metro 2040 TAZ Forecast by Households, January 2016

Aging population

In 2010, the median age in Sherwood was 34.3 years old, compared to the median of 35.3 in Washington County, and the State median of 38.4. Figure B- 7 shows the populations of Oregon, the Portland Region, Washington County, and Sherwood by age in 2010.

Figure B- 7. Population Distribution by Age for Oregon, Sherwood, Oregon, Portland Region, Washington County



Source: U.S. Census 2010, Profile of General Population and Housing Characteristics

Table B- 8 shows population by age in Sherwood for 2000 and 2010. Over the 2000 to 2010 period, the population of people aged 45 to 64 years old grew the fastest, increasing from 1,936 to 3,917, or 102%.

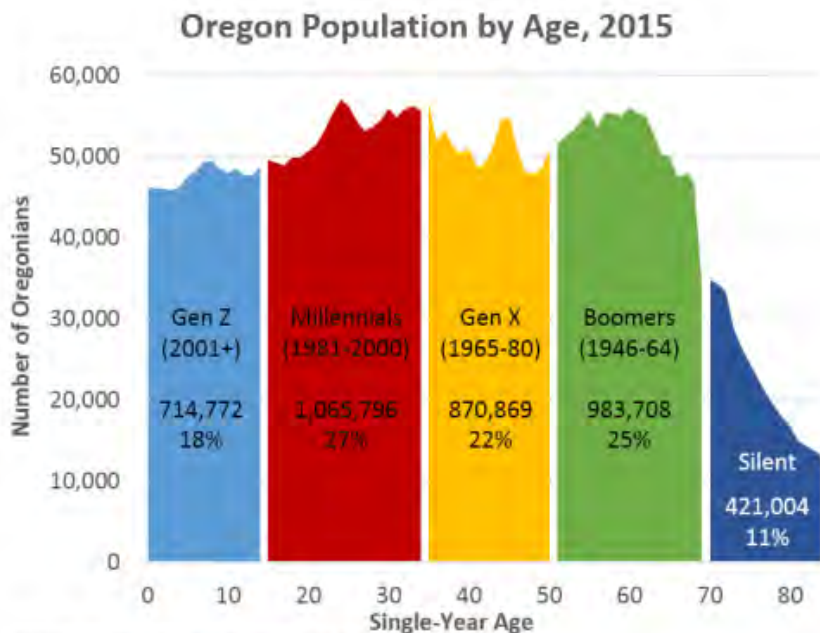
Table B- 8. Population by Age, Sherwood, 2000 and 2010

Age Group	2000		2010		Change 2000-2010		
	Number	Percent	Number	Percent	Number	Percent	Share
Under 5	1,351	11%	1,518	8%	167	12%	-3%
5-17	2,383	20%	4,589	25%	2,206	93%	5%
18-24	644	5%	939	5%	295	46%	0%
25-44	4,854	41%	5,991	33%	1,137	23%	-8%
45-64	1,936	16%	3,917	22%	1,981	102%	5%
65 and over	623	5%	1,240	7%	617	99%	2%
Total	11,791	100%	18,194	100%	6,403	54%	0%

Source: U.S. Census 2000 Table P12, U.S. Census 2010 Table P12

Figure B- 8 shows the population distribution by generation and age in Oregon in 2015. The largest groups are the Millennials (27% of Oregon’s population) and the Baby Boomers (25% of Oregon’s population). By 2035, the end of the planning period for this analysis, Millennials will be between 35 and 54 years old. Baby Boomers will be 71 to 89 years old.

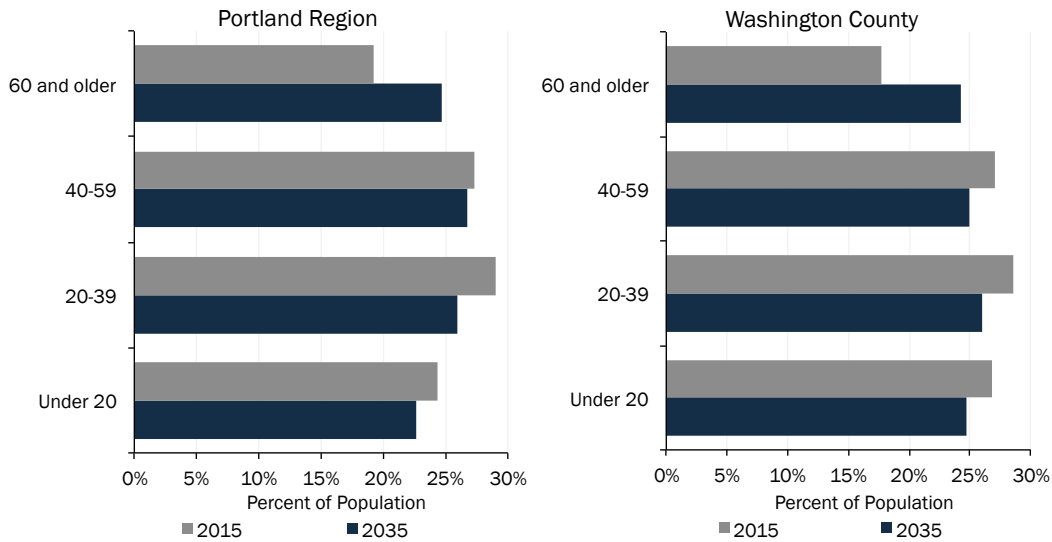
Figure B- 8. Population Distribution by Generation and Age, Oregon, 2015



Source: Oregon Office of Economic Analysis
 Source: Oregon Office of Economic Analysis, “Population, Demographics, and Generations” by Josh Jehner, February 5, 2015.
<http://oregoneconomicanalysis.com/2015/02/05/population-demographics-and-generations/>

Figure B- 9 shows the Office of Economic Analysis’s (OEA) forecast of population change by age group, from 2015 to 2035, for the Portland Region. By 2035, people 60 years and older will account for 24% of the population in Washington County (up from 18% in 2015). The percent of total population in each age group younger than 60 years old will decrease. The age distribution in the Portland Region will change in a similar pattern.

Figure B- 9. Current and projected population by age, Portland Region and Washington County, 2015 and 2035

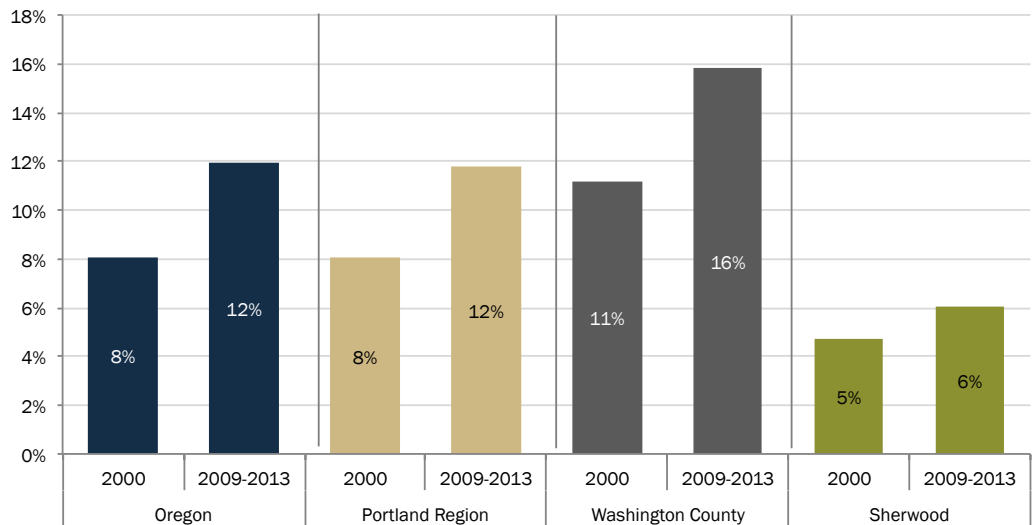


Source: Oregon Office of Economic Analysis.
http://www.oregon.gov/DAS/OEA/docs/demographic/pop_by_ageandsex.xls

Increased ethnic diversity

Figure B-10 shows the percentage of the total population that is of Hispanic or Latino origin for Oregon, the Portland Region, and Sherwood, in 2000 and 2009-2013. Between 2000 and 2009-2013, Hispanic or Latino population increased from 5% of the population to 6% of the population, adding 550 additional Hispanic or Latino residents. Sherwood has a smaller percentage of Hispanic or Latino population than the county or regional average.

Figure B- 10 Hispanic or Latino population by percentage, Oregon, the Portland Region, Washington County, Sherwood, in 2000 and 2009-2013



Source: U.S. Census 2000 SF1 Table P008, American Community Survey 2009-2013 Table B03003.

Household size and composition

Household size

Table B- 9 shows average household sizes in Oregon, the Portland Region, Washington County, and Sherwood in 2000 and the 2009-2013 period.

Table B- 9. Average household size, Oregon, Portland Region, Washington County, and Sherwood, 2000 to 2009-2013.

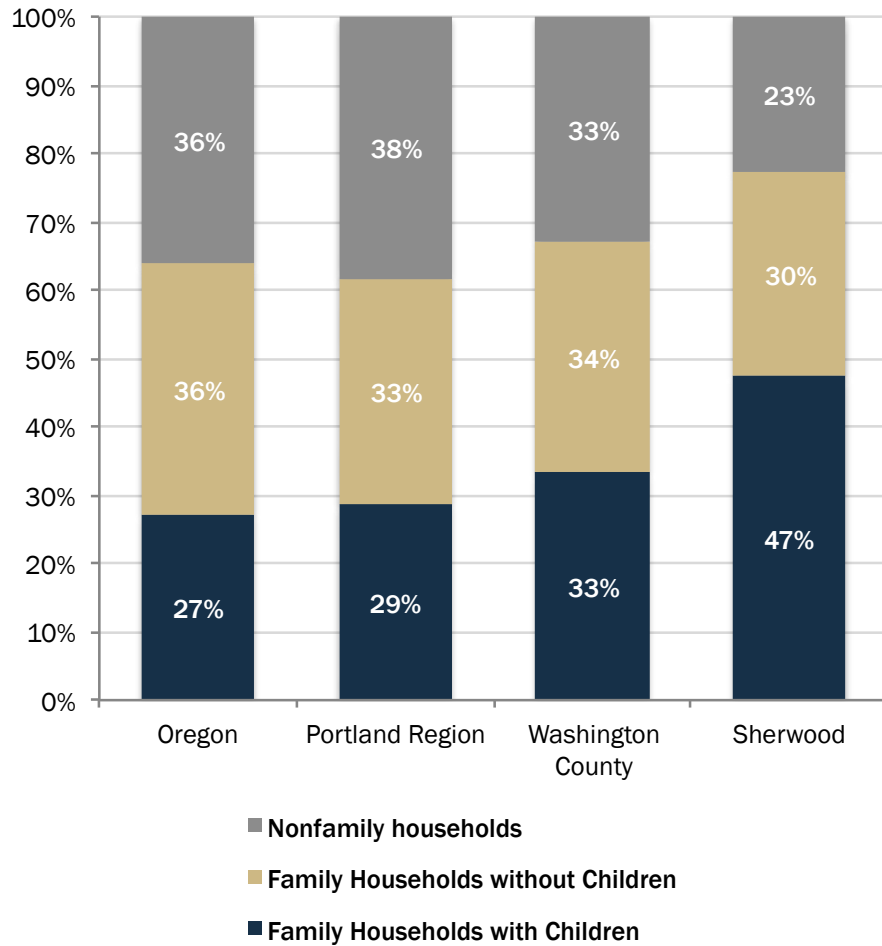
	Oregon	Portland Region	Washington County	Sherwood
2000				
Average household size	2.51	2.53	2.61	2.77
Owner-occupied units	2.59	2.67	2.75	2.85
Renter-occupied units	2.36	2.30	2.39	2.47
2009-2013				
Average household size	2.49	2.54	2.64	2.89
Owner-occupied units	2.55	2.64	2.72	3.00
Renter-occupied units	2.41	2.37	2.53	2.57
Change 2000 to 2009-2013				
Average household size	-0.02	0.00	0.03	0.12
Owner-occupied units	-0.04	-0.02	-0.03	0.15
Renter-occupied units	0.05	0.07	0.14	0.10

Source: U.S. Census 2000 SF1 H012, American Community Survey 2009-2013 Table B25010.

Household composition

Figure B- 11 shows household composition in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013. A larger share of Sherwood’s housing composition is family household with children (47%) compared to that of Washington County (33%), the Portland Region (29%), and Oregon (27%).

Figure B- 11. Household composition, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Tables DP02.

Group Quarters

Table B- 10 shows the population living in group quarters in Oregon, the Portland Region, Washington County, and Sherwood in 2000 and 2010. Only seven out of 18,194 Sherwood residents lived in group quarters in 2010, less than 0.0%. In contrast, 2.3% of Oregon’s population and 1.8% of the Portland region’s population lives in group quarters.

Table B- 10. Persons in group quarters, Oregon, Portland Region, Washington County, and Sherwood, 2000 to 2010.

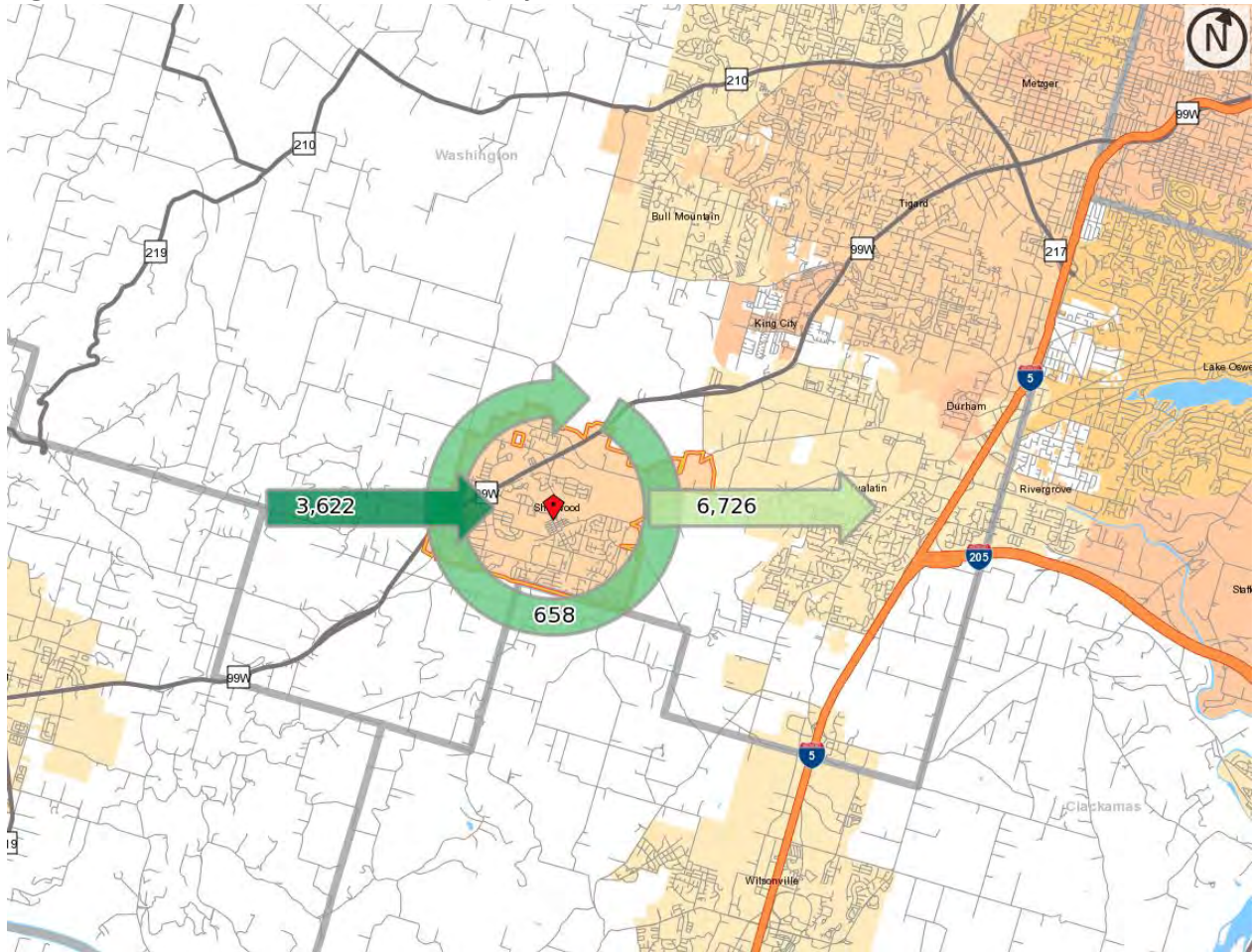
	2000	2010
Oregon		
Total Population	3,421,399	3,831,074
Persons in Group Quarters	77,491	86,642
Percent in Group Quarters	2.3%	2.3%
Percent in correctional institutions	0.6%	0.6%
Portland Region		
Total Population	1,444,219	1,641,036
Persons in Group Quarters	23,667	29,124
Percent in Group Quarters	1.6%	1.8%
Percent in correctional institutions	0.0%	0.0%
Washington County		
Total Population	445,342	529,710
Persons in Group Quarters	4,101	6,788
Percent in Group Quarters	0.9%	1.3%
Percent in correctional institutions	0.1%	0.4%
Sherwood		
Total Population	11,791	18,194
Persons in Group Quarters	19	7
Percent in Group Quarters	0.2%	0.0%
Percent in correctional institutions	0.0%	0.0%

Source: U.S. Census 2000 SF1 Tables P1 and P37, U.S. Census 2010 SF1 Tables P1 and P42

Commuting trends

Commuting within the Portland region is common, with small cities like Sherwood seeing the vast majority of workers commute out of the city for work and the majority of people working in the city commuting in from other parts of the region. Figure B- 12 shows this pattern in Sherwood, with the majority of people living in Sherwood commuting out for work and the majority of people working in Sherwood commuting into the city for work.

Figure B- 12. Inflow and Outflow of Employment and Residence in Sherwood, 2011



Source: U.S. Census Bureau: LED on the Map, <http://lehdmap3.did.census.gov/themap3/>
The U.S. Census bases this data on Unemployment Insurance earnings data and the Quarterly Census of Employment and Wages (QCEW) data, combined with administrative data, additional administrative data and data from censuses and surveys. From these data, the program creates statistics on employment, earnings, and job flows at detailed levels of geography and industry and for different demographic groups.

Table B- 11 shows the places where Sherwood residents were employed in 2011. More than 90% of Sherwood residents worked outside of the city.

Table B- 11. Places that residents of Sherwood were employed in, 2011.

Location	Number	Percent
Counties		
Washington	3,616	49%
Multnomah	1,803	24%
Clackamas	1,147	16%
Yamhill	338	5%
Maion	330	4%
Clark	71	1%
Polk	13	0%
Columbia	12	0%
All other counties	54	1%
Cities		
Portland	1,686	23%
Tigard	660	9%
Sherwood	658	9%
Beaverton	575	8%
Tualatin	575	8%
All other cities	3,230	44%
Total	7,384	100%

Source: U.S. Census Bureau: LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

Table B- 12 shows where employees of firms located Sherwood lived in 2011. More than 80% of people who worked in Sherwood commuted from outside the city.

Table B- 12. Places where workers in Sherwood lived in 2011

Location	Number	Percent
Counties		
Washington	2,013	47%
Clackamas	602	14%
Multnomah	467	11%
Yamhill	460	11%
Marion	224	5%
Clark	76	2%
Linn	52	1%
Lane	46	1%
Polk	44	1%
All other counties	296	7%
Cities		
Sherwood	658	15%
Portland	371	9%
Tigard	233	5%
Beaverton	224	5%
Newberg	207	5%
All other cities	2,587	60%
Total	4,280	100%

Source: U.S. Census Bureau: LED on the Map, <http://lehdm3.did.census.gov/themap3/>.

MANUFACTURED HOMES

Manufactured homes are and will be an important source of affordable housing in Sherwood. They provide a form of homeownership that can be made available to low- and moderate-income households. Cities are required to plan for manufactured homes—both on lots and in parks (ORS 197.475-492).

Generally, manufactured homes in parks are owned by the occupants who pay rent for the space. Monthly housing costs are typically lower for a homeowner in a manufactured home park for several reasons, including the fact that property taxes levied on the value of the land are paid by the property owner rather than the manufactured homeowner. The value of the manufactured home generally does not appreciate in the way a conventional home would, however.

Manufactured homeowners in parks are also subject to the mercy of the property owner in terms of rent rates and increases. It is generally not within the means of a manufactured homeowner to relocate a manufactured home to escape rent increases. Living in a park is desirable to some because it can provide a more secure community with on-site managers and amenities, such as laundry and recreation facilities.

Sherwood had 258 manufactured homes in 2000 and 155 manufactured homes in the 2009-2013 period, a decrease of 103 dwellings. According to Census data, roughly 83% of the manufactured homes in Sherwood were owner-occupied in the 2009-2013 period.

OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial, or high-density residential development. Table B- 13 presents the inventory of mobile and manufactured home parks within Sherwood in 2014. The results show that Sherwood had 4 manufactured home parks with 186 spaces and 1 vacant space.

Table B- 13. Inventory of Mobile/Manufactured Home Parks, City of Sherwood, 2014

Name	Location	Park Type	Total Spaces	Vacant Spaces
Carriage Park Estates	23077 SW Main St	Family	58	0
Crown Court	27300 SW Pacific Hwy	Family	14	1
Orland Villa	22200 SW Orland Street	Family	24	0
Smith Farm Estates	17197-17180 SW Smith Ave	Family	90	0
Total			186	1

Source: Oregon Manufactured Dwelling Park Directory, <http://o.hcs.state.or.us/MDPCRParcs/ParkDirQuery.jsp>.

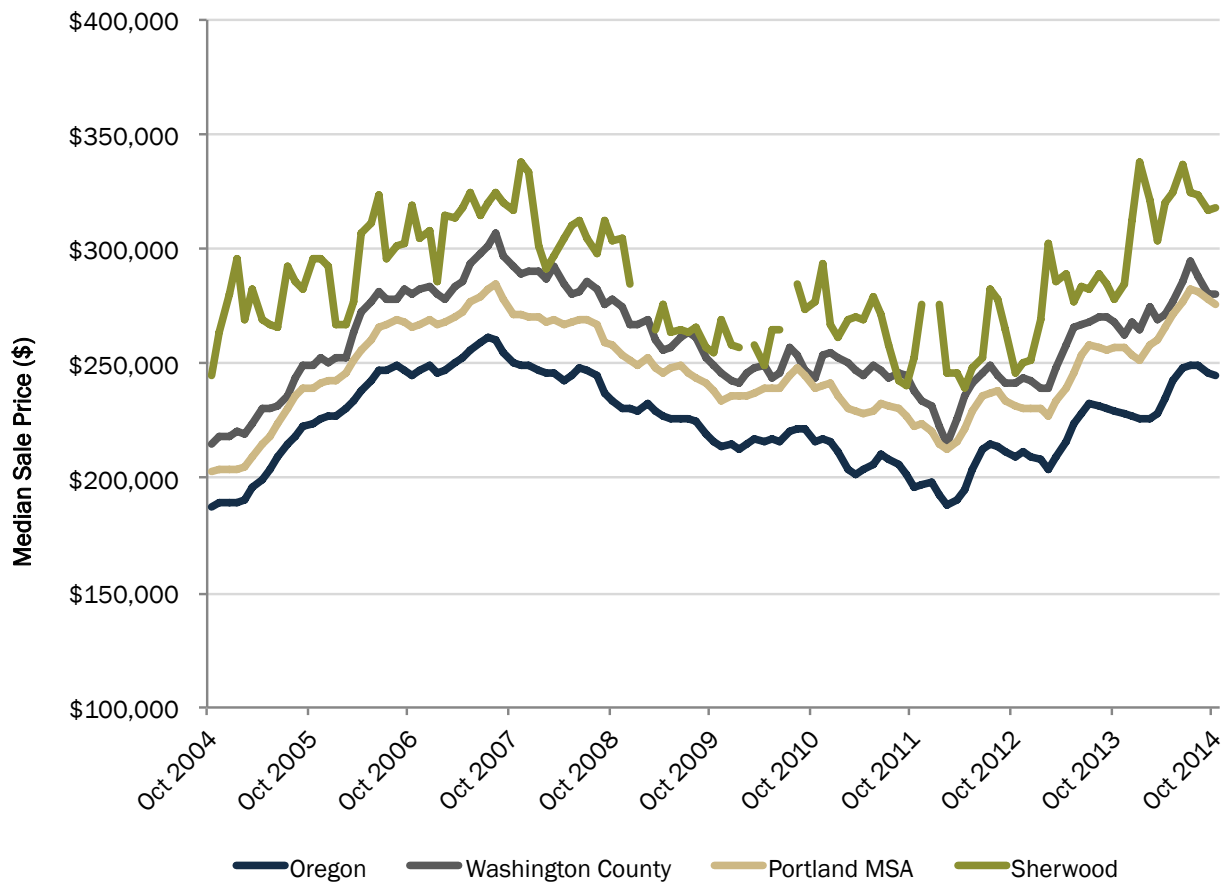
Changes in housing cost

According to Zillow, the median sales price of a home in Sherwood increased by about 30% between 2004 and 2014. Housing prices rose steeply prior to 2007, reaching a high of roughly \$338,000, before the housing bubble and recession led to a period of declining housing prices. Housing prices in Sherwood, while following the same general pattern, remain higher than those observed in other parts of the region and the State as a whole.

Housing values

Figure B- 13 shows the median sales price in Oregon, the Portland MSA, Washington County, and Sherwood between 2004-2014. As of January 2015, median sales prices in Sherwood were \$331,300, higher than in Washington County (\$281,700), the Portland MSA (\$269,900), and Oregon (\$241,400).

Figure B- 13. Median Sales Price, Oregon, Portland MSA, Washington County and Sherwood, 2004-2014

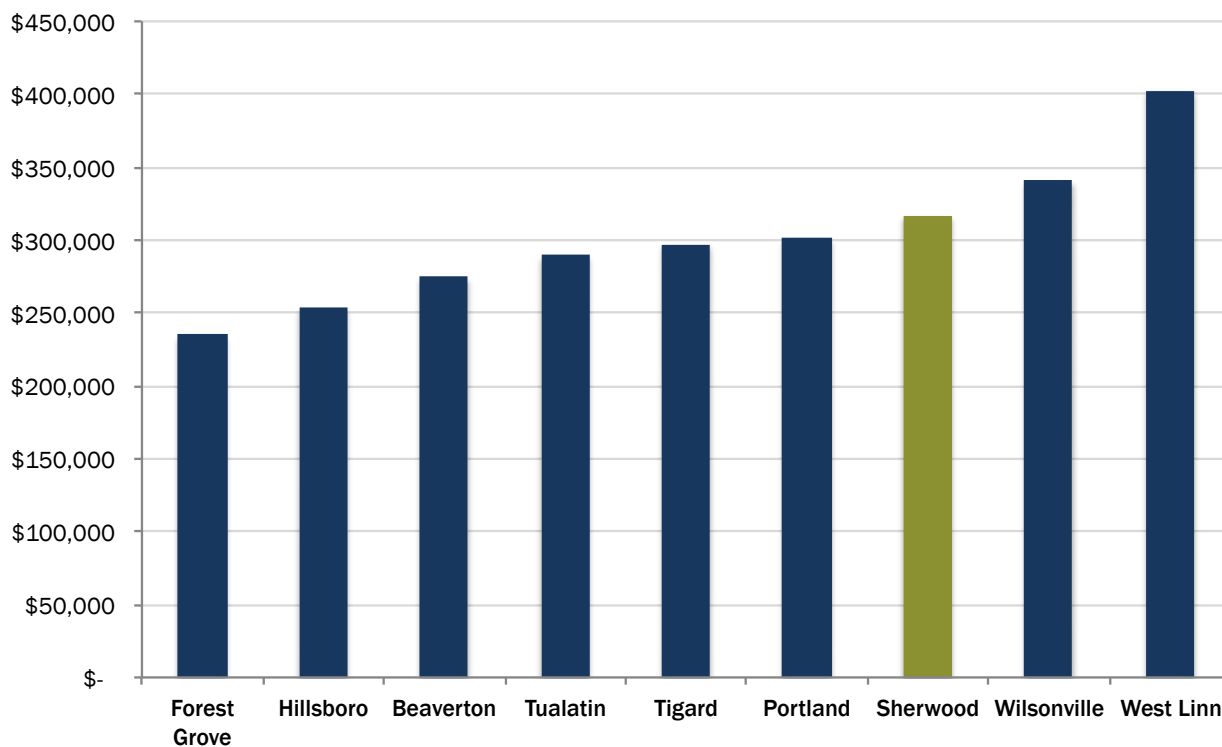


Source: Zillow Real Estate Research.

Note: Gaps in Sherwood's median sales price occur where data was not available.

Figure B- 14 shows median home sales prices for Sherwood and regional cities in January 2015. In that month, median home sale prices in Sherwood were about \$316,500, above sales prices in other Portland westside communities such as Tigard, Tualatin, and Beaverton. Median sales prices in Wilsonville and West Linn were higher than those in Sherwood.

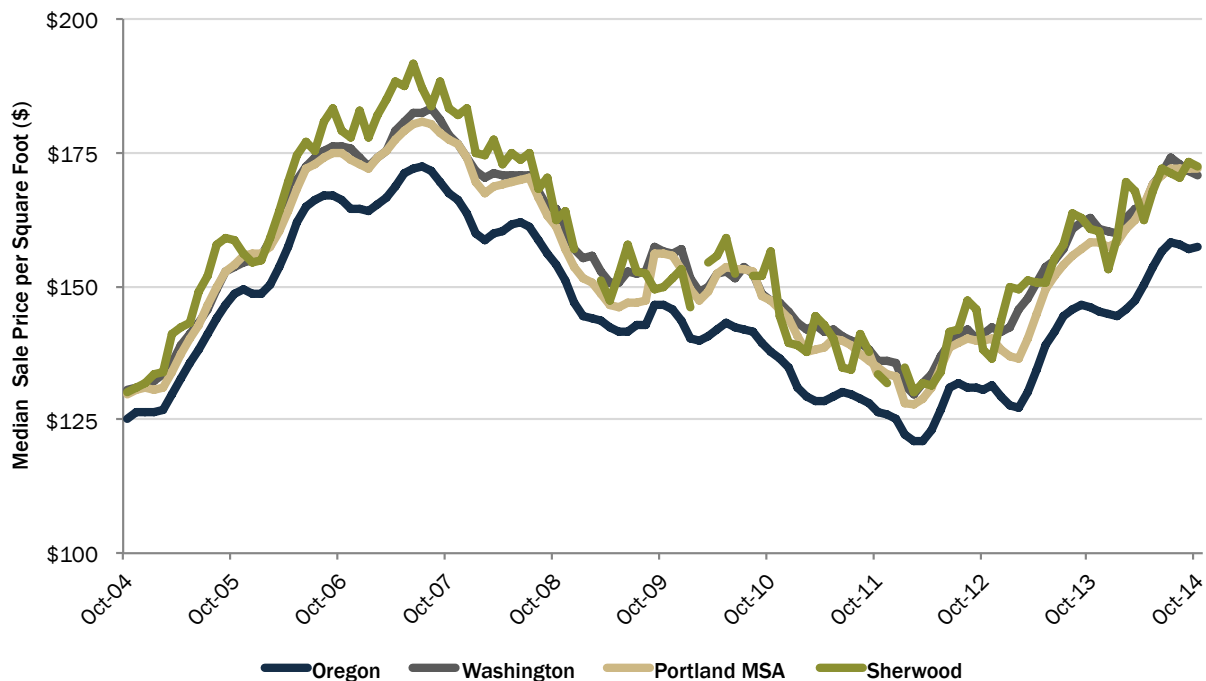
Figure B- 14. Median Home Sales Price, Sherwood, Tualatin, Tigard, Beaverton, Hillsboro, Forest Grove, Portland, January 2015



Source: Zillow Real Estate Research.

Figure B- 15 shows median home sales price per square foot for Oregon, the Portland MSA, Washington County and Sherwood from 2004-2013. Prices per square foot rose in Sherwood from \$130 per square foot in October 2004 to \$192 in July 2007. Prices fell after 2007 and rose again starting in 2011. In October 2014, the median price per square foot in Sherwood was about \$170 dollars, comparable to the price in Washington County and the Portland Region (both about \$170) and above that of the state as a whole (\$157 per square foot).

Figure B- 15. Median Sales Price per Square Foot, Oregon, Portland MSA, Washington County and Sherwood, 2004-2014

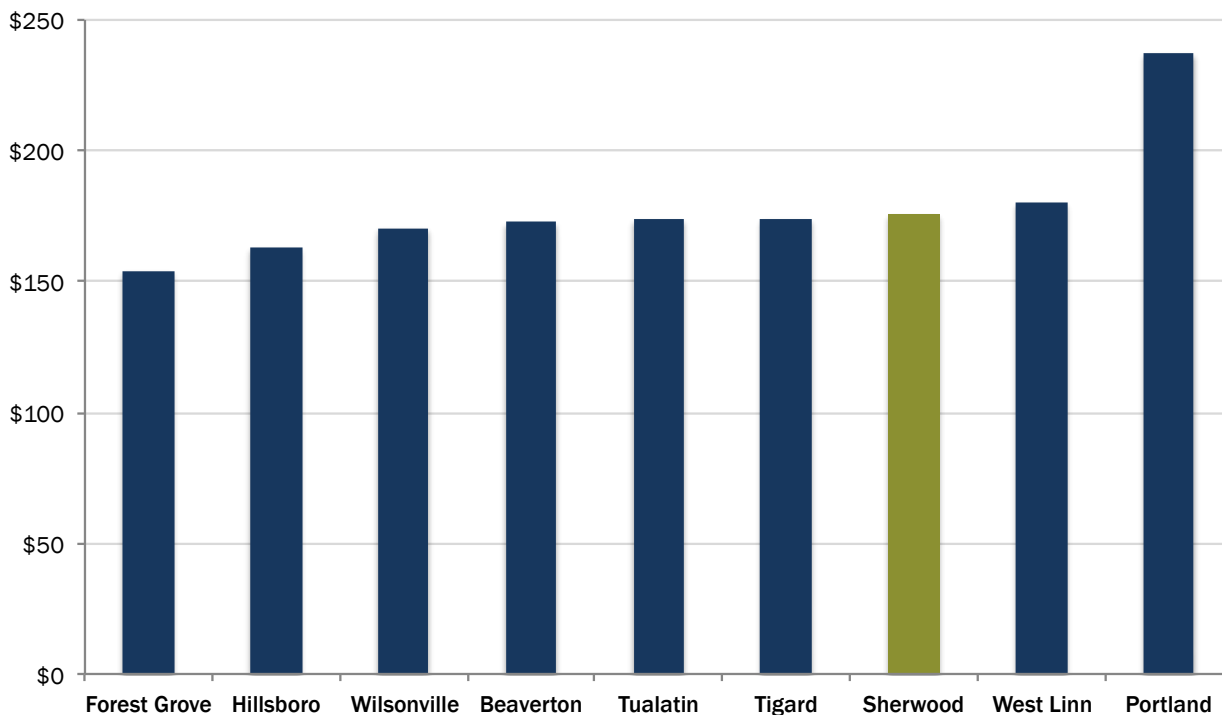


Source: Zillow Real Estate Research.

Note: Gaps in Sherwood's median sales price occur where data was not available.

Figure B- 16 shows median home sales price per square foot for Sherwood and regional cities in January 2015. Of the cities sampled, Sherwood had the third-highest price per square foot, at \$176 per square foot. Prices per square foot in West Linn and Portland were higher, at \$180 and \$237 respectively. While Sherwood's prices were the third highest, they compared very closely to other cities such as Tigard (\$174), Tualatin (\$174), Beaverton (\$173), and Wilsonville (\$171).

Figure B- 16. Median Sales Price Per Square Foot, Forest Grove, Hillsboro, Wilsonville, Beaverton, Tualatin, Tigard, Sherwood, West Linn, and Portland, January 2015.



Source: Zillow Real Estate Research.

Housing rental costs

Table B- 14 shows the median contract rent in Oregon, Multnomah, Washington, and Clackamas counties, and Sherwood, in 2000 and 2009-2013. The median contract in Sherwood in 2009-2013 was \$212 above the median in Washington County.

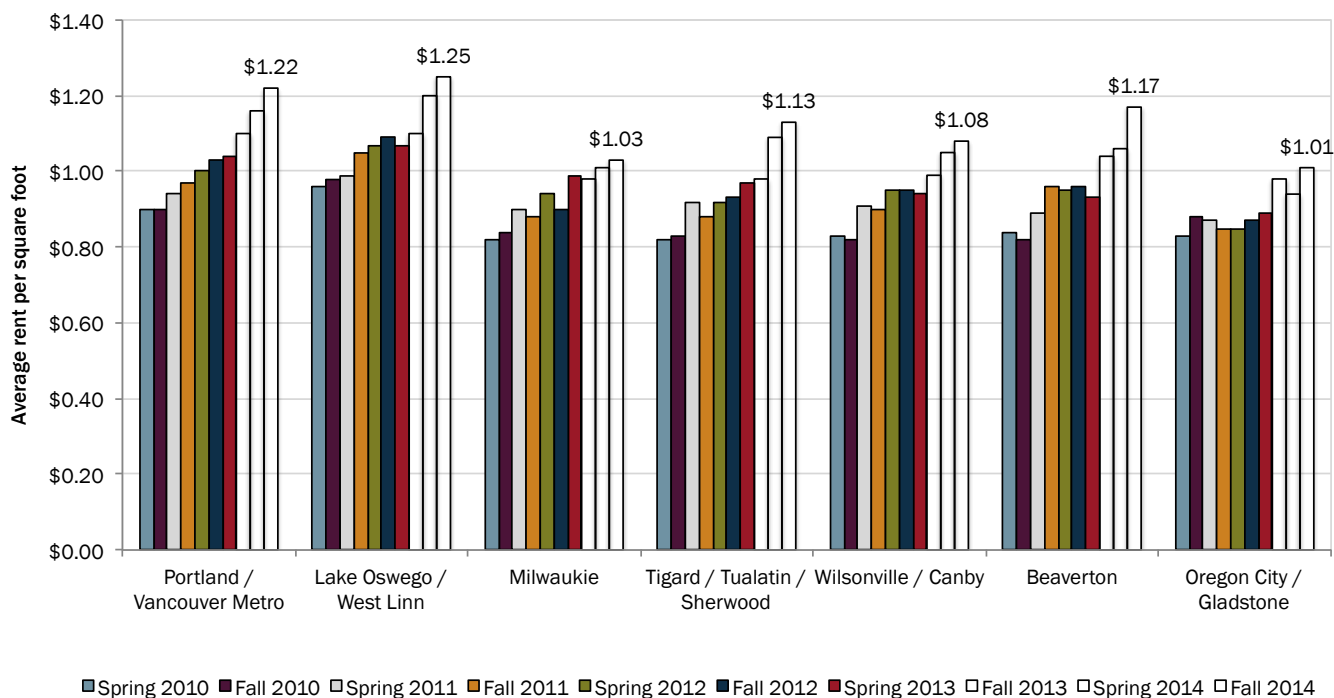
Table B- 14. Median contract rent, inflation-adjusted dollars, Oregon, Multnomah Washington, and Clackamas Counties, and Sherwood, 2000 to 2009-2013

Location	Rent		Change 2000 to 2009-2013	
	2000	2009-2013	Amount	Percent
Oregon	\$741	\$749	\$8	1%
Multnomah County	\$771	\$799	\$28	4%
Washington County	\$878	\$852	-\$26	-3%
Clackamas County	\$853	\$858	\$5	1%
Sherwood	\$880	\$1,064	\$184	21%

Source: U.S. Census 2000 SF3 Table H56, American Community Survey 2012 Table B25058
 Note: All data reported in 2013 dollars; 2000 figures were updated using Consumer Price Index.

Figure B- 17 shows average rent per square foot for apartments in the Portland/Vancouver Metro region and selected submarkets, according to Multifamily NW data between 2010 and 2014. Average rent in the Tigard/Tualatin/Sherwood area submarket was \$1.13 per square foot in Fall 2014, lower than the regional average of \$1.22 per square foot. Between Spring 2010 and Spring 2013, average rent in Tigard/Tualatin/Sherwood area increased by 38%, consistent with the regional increase of 36%.

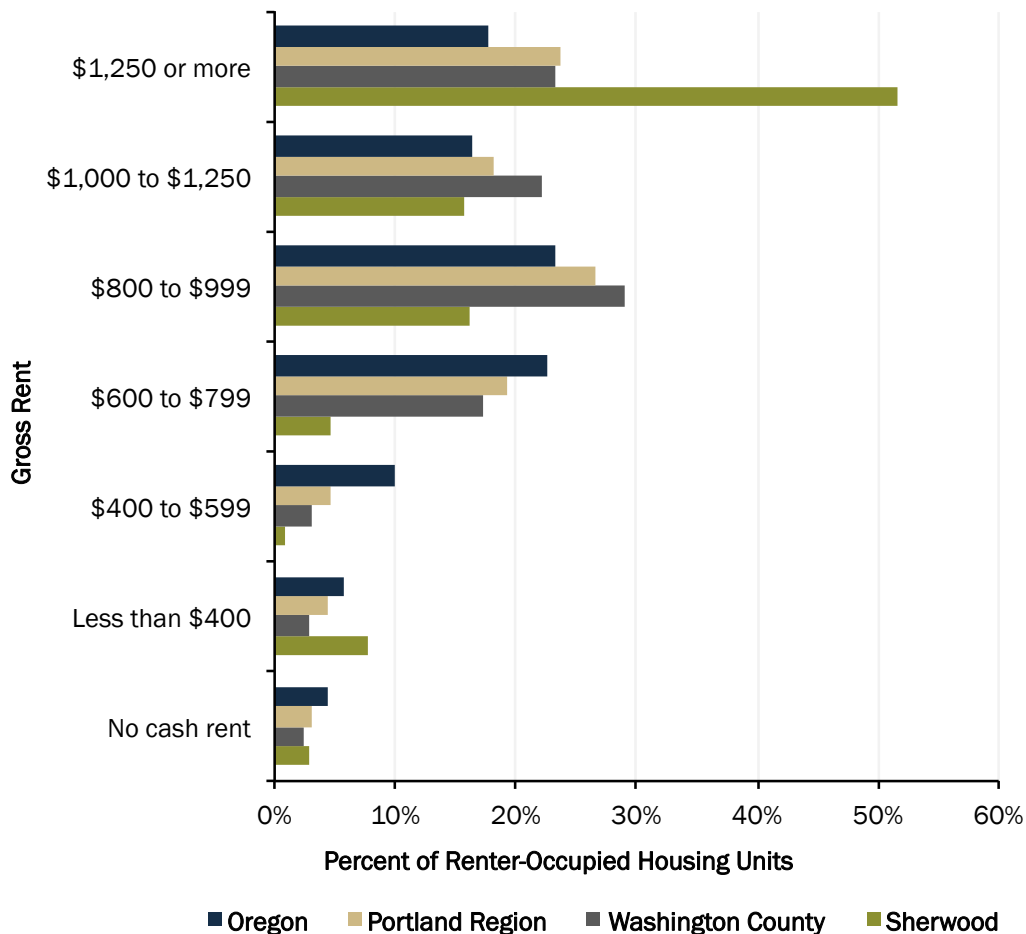
Figure B- 17. Average rent per square foot, Portland/Vancouver Metro and selected submarkets, 2010-2014



Source: Multifamily NW Apartment Reports, Spring 2010 through Fall 2014.
 Note: The average rent price shown on the graph is for Fall 2014

Figure B- 18 shows a comparison of gross rent for renter-occupied housing units in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013.⁴⁸

Figure B- 18. Gross rent, renter occupied housing units, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Table B25063.

⁴⁸ The U.S. Census defines gross rent as: “the amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else).”

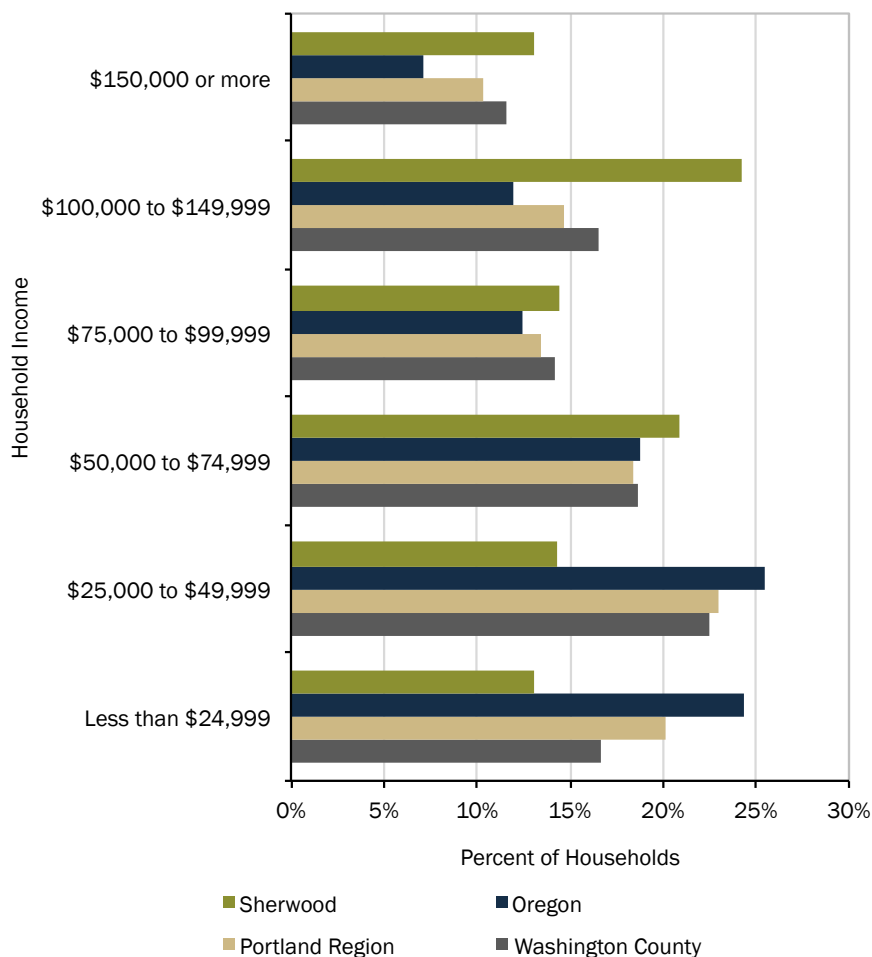
INCOME AND AFFORDABILITY OF HOUSING

This section summarizes regional and local income and housing cost trends. Income is a key determinant in housing choice and a households’ ability to afford housing. A review of historical income and housing price trends provides insight into the local and regional housing markets.

The median household income in Sherwood was higher than in nearby counties and the state as a whole in the 2009-2013 period. Median household income in Sherwood was about \$78,400, compared to \$64,200 in Washington County, \$64,400 in Clackamas County, and \$52,500 in Multnomah County. Statewide, the median income was about \$50,300.

Figure B- 19 shows the distribution of household income in Oregon, the Portland Region, and Sherwood in the 2009-2013 period. Sherwood had the highest share of households earning over \$100,000 and the lowest share of households earning less than \$25,000.

Figure B- 19. Household Income, Oregon, Portland Region, Washington County, and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Table B19001.

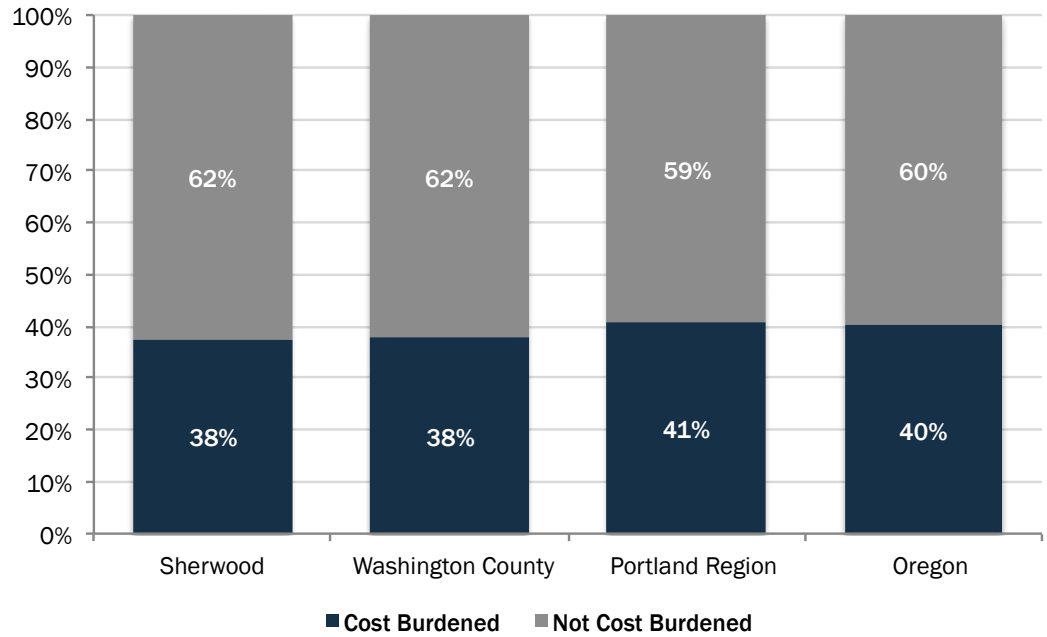
A typical standard used to determine housing affordability is that a household should pay no more than a certain percentage of household income for housing, including payments and interest or rent, utilities, and insurance.⁴⁹ HUD guidelines indicate that households paying more than 30% of their income on housing experience “cost burden,” and households paying more than 50% of their income on housing experience “severe cost burden.” Using cost burden as an indicator of housing affordability is consistent with the Goal 10 requirement to provide housing that is affordable to all households in a community.

According to the U.S. Census, nearly 2,345 households in Sherwood—or 38%—paid more than 30% of their income for housing expenses in the 2009-2013 period. About 44% of renter households in Sherwood were cost burdened, compared with 35% of owner households. In comparison, 40% of Oregon’s households were cost burdened in the 2009-2013 period, with 54% of renter households and 32% of owner households cost burdened.

⁴⁹ Cost burden for renters accounts for the following housing costs: monthly rent, utilities (electricity, gas, and water and sewer), and fuels (wood, oil, etc.). Cost burden for homeowners accounts for the following housing costs: mortgage payments, real estate taxes, insurance, mobile home costs, condominium fees, utilities, and fuels.

Figure B- 20 shows the percentage of the population experiencing housing cost burdens in Oregon, the Portland Region, Washington County, and Sherwood in 2009-2013.

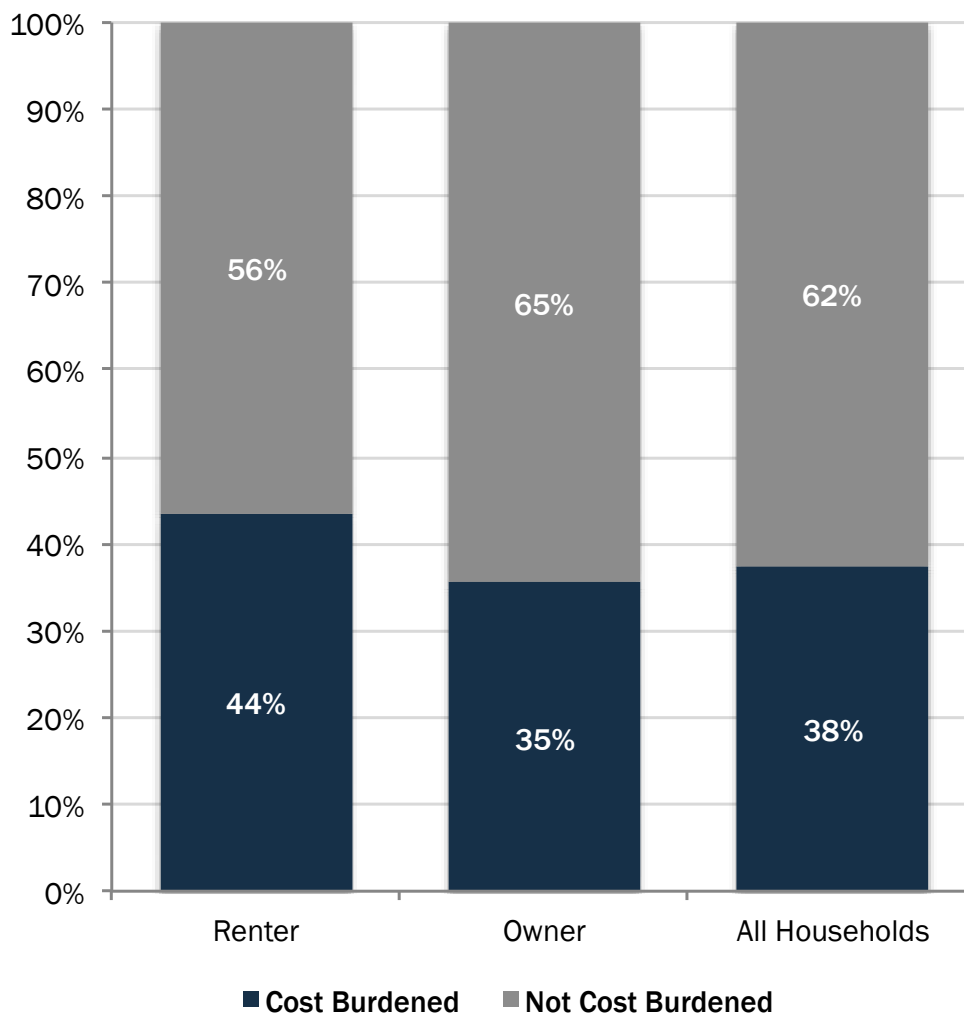
Figure B- 20. Housing cost burden, Oregon, Portland Region, Washington County and Sherwood, 2009-2013.



Source: American Community Survey 2009-2013 Tables B25070 and B25091.
Note: Households which the Census classifies as "Not computed" were excluded from the above calculations.

Figure B- 21 shows housing cost burden, by tenure, for Sherwood households in 2009-2013. Forty-four percent of Sherwood’s renter households are cost burdened, compared to 49% of renter households in Washington County. Thirty-five percent of owner households are cost burdened, compared to 31% of owner households in Washington County.

Figure B- 21. Housing cost burden by tenure, Sherwood, 2009-2013.



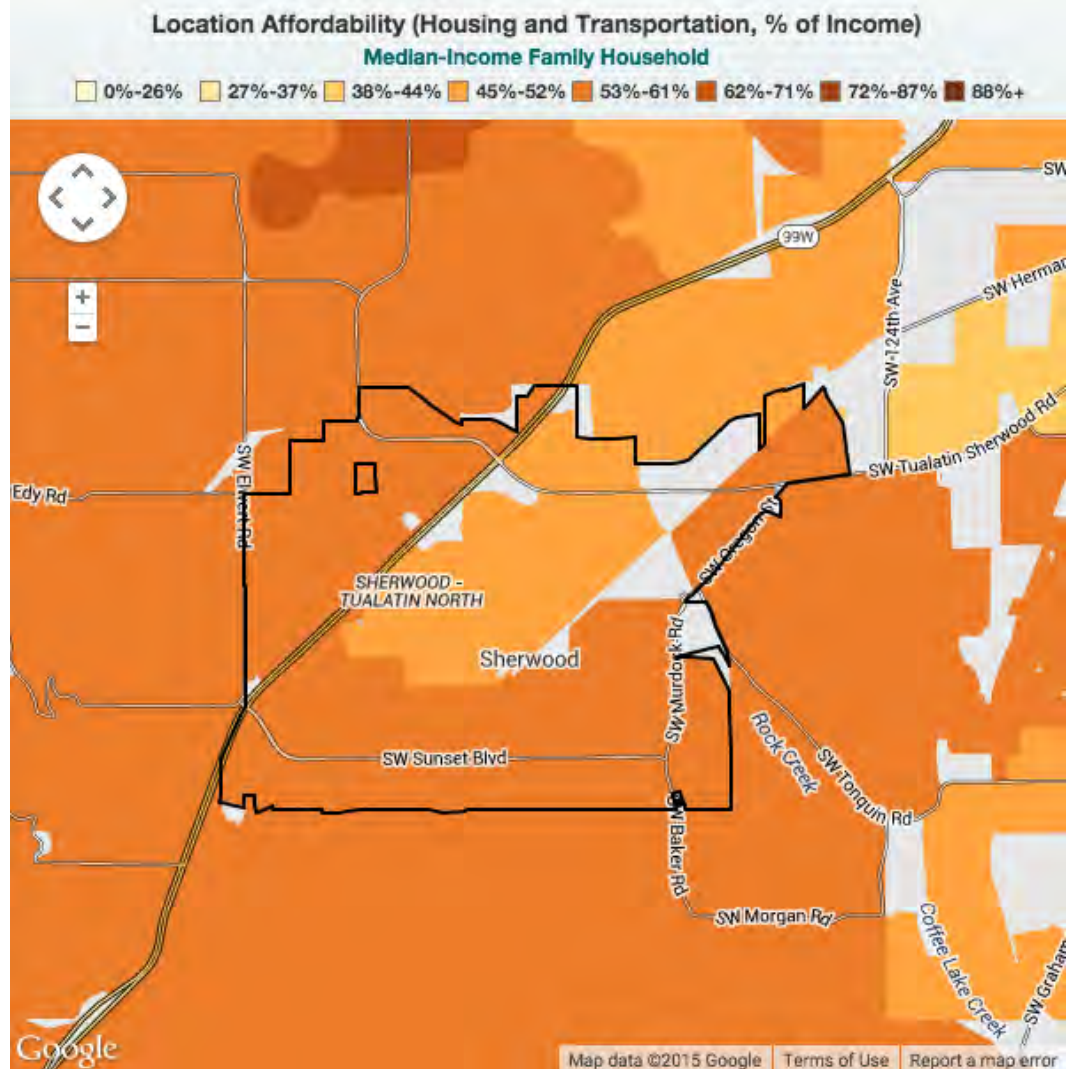
Source: American Community Survey 2009-2013 Tables B25070 and B25091.

Another way to measure cost burden is to consider the costs of housing combined with the costs of transportation. In the *Draft 2014 Urban Growth Report*, Metro considered this perspective on cost burden. Metro considered a household that spends 45% or more of its income on transportation and housing as cost burdened.

According to data from the Location Affordability Portal, from HUD and the U.S. Department of Transportation, the average household in Sherwood spends 54% of its income on housing costs and transportation costs. Figure B- 22 and Figure

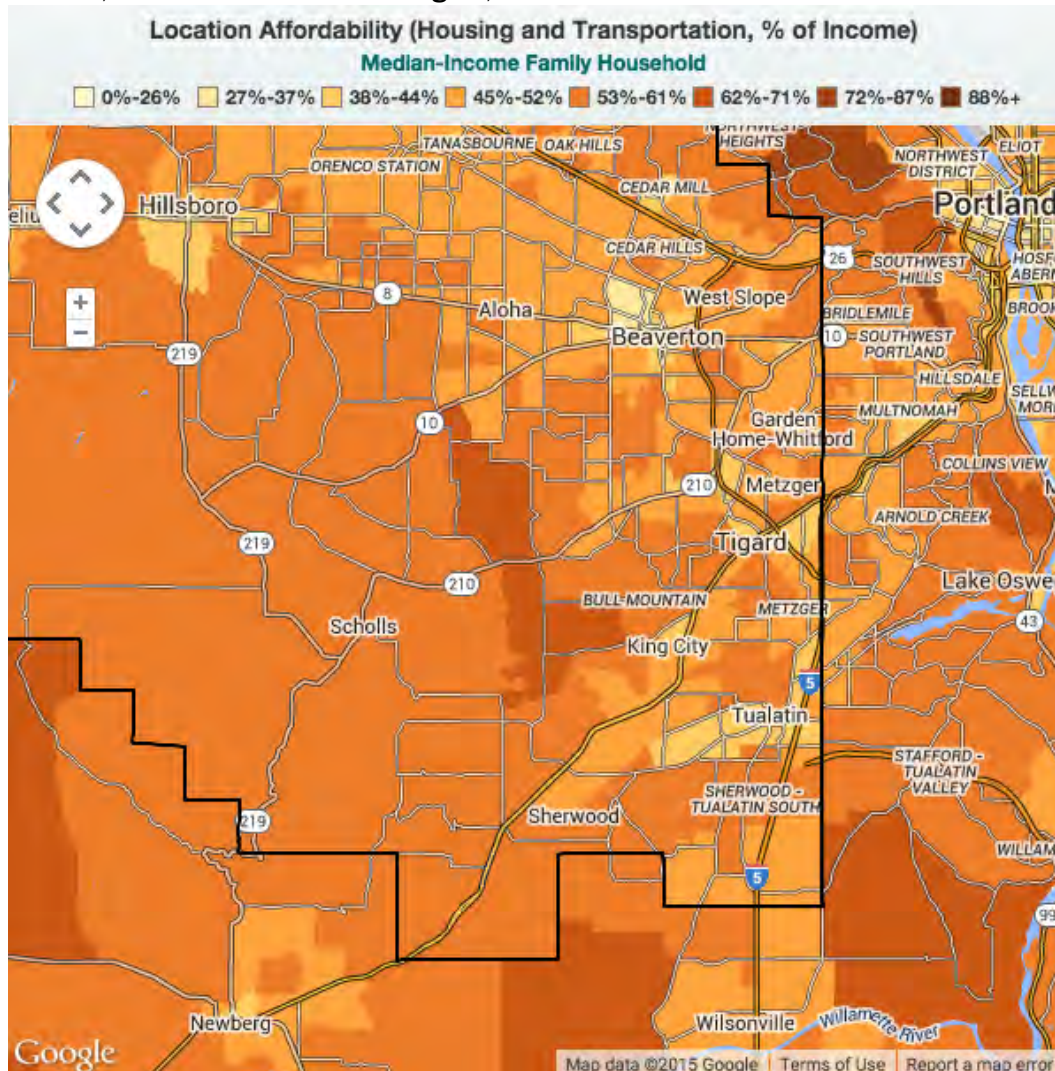
B- 23 show the percentage of income spent on housing and transportation costs in Sherwood and the southwestern part of the Portland region. In comparison to cities such as Tualatin, Wilsonville, and Tigard, households in Sherwood pay a slightly larger percentage of their income on housing and transportation costs. On average, households in these cities pay 50% to 52% of their income on housing and transportation costs.

Figure B- 22. Housing and transportation costs as a percentage of median family income, Sherwood, 2014



Source: HUD and US DOT's Location Affordability Portal
<http://locationaffordability.info/>

Figure B- 23. Housing and transportation costs as a percentage of median family income, southwestern Portland region, 2014



While cost burden is a common measure of housing affordability, it does have some limitations. Two important limitations are:

- A household is defined as cost burdened if the housing costs exceed 30% of their income, regardless of actual income. The remaining 70% of income is expected to be spent on non-discretionary expenses, such as food or medical care, and on discretionary expenses. Households with higher income may be able to pay more than 30% of their income on housing without impacting the household's ability to pay for necessary non-discretionary expenses.
- Cost burden compares income to housing costs and does not account for accumulated wealth. As a result, the estimate of how much a household can afford to pay for housing does not include the impact of accumulated

wealth on a household's ability to pay for housing. For example, a household with retired people may have relatively low income but may have accumulated assets (such as profits from selling another house) that allow them to purchase a house that would be considered unaffordable to them based on the cost burden indicator.

Cost burden is only one indicator of housing affordability. Another way of exploring the issue of financial need is to review wage rates and housing affordability. Table B- 15 shows an illustration of affordable housing wage and rent gap for households in the Portland MSA at different percentages of median family income (MFI). The data are for a typical family of four. The results indicate that a household must earn \$17.73 an hour to afford a two-bedroom unit according to HUD's market rate rent estimate.

Table B- 15. Affordable Housing Wage Gap, Portland MSA, 2014

Value	Minimum Wage	30% MFI	50% MFI	80% MFI	100% MFI	120% MFI
Annual Hours	2,080	2,080	2,080	2,080	2,080	2,080
Derived Hourly Wage	\$9.10	\$10.01	\$16.68	\$26.69	\$33.37	\$40.04
Annual Wage	\$18,928	\$20,820	\$34,700	\$55,520	\$69,400	\$83,280
Annual Affordable Rent	\$5,678	\$6,246	\$10,410	\$16,656	\$20,820	\$24,984
Monthly Affordable Rent	\$473	\$521	\$868	\$1,388	\$1,735	\$2,082
HUD Fair Market Rent (2 Bedroom)	\$922	\$922	\$922	\$922	\$922	\$922
Is HUD Fair Market Rent Higher Than The Monthly Affordable Rent?	Yes	Yes	Yes	No	No	No
Rent Paid Monthly OVER 30% of Income	\$449	\$402	na	na	na	na
Rent Paid Annually OVER 30% of Income	\$5,386	\$4,818	na	na	na	na
Percentage of Income Paid OVER 30% of Income for Rent	28%	23%	na	na	na	na
Percentage of Income Spent on Housing	58%	53%	32%	20%	16%	13%
For this area what would the "Affordable Housing Wage" be?	\$17.73	\$17.73	\$17.73	\$17.73	\$17.73	\$17.73
The Affordable Housing Wage Gap IS:	\$8.63	\$7.72	\$1.05	na	na	na

Source: FMR comes from HUD's FY 2014 Two-Bedroom FMR for Portland-Vancouver-Hillsboro MSA. Minimum wage from Oregon's Bureau of Labor and Industries. MFI from HUD's FY 2014 MFI for Portland- Vancouver -Hillsboro MSA.

Table B- 16 shows a rough estimate of affordable housing cost and units by income levels for Sherwood in 2014 based on Census data about household income, the value of owner-occupied housing in Sherwood, and rental costs in Sherwood. Several points should be kept in mind when interpreting this data:

- Affordable monthly housing costs and estimate of affordable purchase prices are based on HUD income standards and assume that a household will not spend more than 30% of household income on housing costs. Some households pay more than 30% of household income on housing costs, generally because they are unable to find more affordable housing or because wealthier households are able to pay a larger share of income for housing costs.
- HUD's affordability guidelines for Fair Market Rent are based on median family income and provide a rough estimate of financial need. These guidelines may mask other barriers to affordable housing such as move-in costs, competition for housing from higher-income households, and availability of suitable units. They also ignore other important

factors such as accumulated assets, purchasing housing as an investment, and the effect of down payments and interest rates on housing affordability.

- Households compete for housing in the marketplace. In other words, affordable housing units are not necessarily *available* to low-income households. For example, if an area has a total of 50 dwelling units that are affordable to households earning 30% of median family income, 50% of those units may already be occupied by households that earn more than 30% of median family income.

The data in Table B- 16 indicate that in 2014:

- About 20% of households in Sherwood could not afford a two-bedroom apartment at HUD's fair market rent level of \$922.
- A household earning median family income (\$69,400) could afford a home valued up to about \$173,500.
- Sherwood has a deficit of about 660 dwellings to households earning less than \$35,000 (or 50% of the Portland metropolitan area's median family income).

Table B- 16. Rough estimates of housing affordability, Sherwood, 2009-2013

Income Level	Number of HH	Percent	Affordable Monthly Housing Cost	Crude Estimate of Affordable Purchase Owner-Occupied Unit	Est. Number of Owner Units	Est. Number of Renter Units	Surplus (Deficit)	HUD Fair Market Rent (FMR) in 2014
Less than \$10,000	186	3%	\$0 to \$250	\$0 to \$25,000	44	60	(82)	
\$10,000 to \$14,999	280	4%	\$250 to \$375	\$25,000 to \$37,000	40	69	(171)	
\$15,000 to \$24,999	364	6%	\$375 to \$625	\$37,500 to \$62,500	35	36	(293)	
\$25,000 to \$34,999	298	5%	\$625 to \$875	\$62,500 to \$87,500	71	111	(116)	Studio: \$666
\$35,000 to \$49,999	618	10%	\$875 to \$1,250	\$87,500 to \$125,000	77	510	(31)	1 bdrm: \$774
\$50,000 to \$74,999	1,333	21%	\$1,250 to \$1,875	\$125,000 to \$187,500	360	678	(295)	2 bdrm: \$922
Portland MSA 2014 MFI: \$69,400			\$1,735	\$173,500				3 bdrm: \$1,359
\$75,000 to \$99,999	922	14%	\$1,875 to \$2,450	\$187,500 to \$245,000	748	172	(2)	4 bdrm: \$1,633
\$100,000 to \$149,999	1,543	24%	\$2,450 to \$3,750	\$245,000 to \$375,000	2,172	23	652	
\$150,000 or more	836	13%	More than \$3,750	More than \$375,000	1,151	23	338	
Total	6,380	100%			4,698	1,682	0	

Source: FMR comes from HUD's FY 2014 Two-Bedroom FMR for Portland-Vancouver-Hillsboro MSA. Minimum wage from Oregon's Bureau of Labor and Industries. MFI from HUD's FY 2014 MFI for Portland-Vancouver-Hillsboro MSA; Data about the share of owner and renter households and their income in Sherwood comes from the American Community Survey, 2009-2013 Tables B25075, B25063, B19001.

Table B- 17 shows that between 2000 and 2009-2013, both median household income and housing values increased substantially, with increases in home value outpacing growth in income. Median household income increased between 2000 and the 2009-2013 period.

Housing in Sherwood has become less affordable since 2000, consistent with county and statewide trends. In 2009-2013, the median home value was 3.8 times the median household income in Sherwood, up from 2.9 in 2000.

Housing in Sherwood is relatively affordable, compared to the county and state. In 2009-2013, the median home value was 4.4 times the median household income in Washington County, with a statewide average of 4.7.

Table B- 17. Household income to home value, 2013 dollars, Oregon, Washington County, and Sherwood, 2000 and 2009-2013.

	2000	2009-2013	Change 2000 to 2013	
			Number	Percent
Oregon				
Median HH Income	\$57,282	\$50,229	-\$7,053	-12%
Median Owner Value	\$204,120	\$238,000	\$33,880	17%
Ratio of Home Value to Income	3.56	4.74	1.17	33%
Washington County				
Median HH Income	\$72,971	\$64,180	-\$8,791	-12%
Median Owner Value	\$252,560	\$282,400	\$29,840	12%
Ratio of Home Value to Income	3.46	4.40	0.94	27%
Sherwood				
Median HH Income	\$87,525	\$78,355	-\$9,170	-10%
Median Owner Value	\$254,100	\$300,300	\$46,200	18%
Ratio of Home Value to Income	2.90	3.83	0.93	32%

Source: Census 2000 SF1 P53 P77 P82 P87, SF3 H7 H63 H76, American Community Survey 2009-2013 DP03, B25003, B25064, B25077.

TABLE OF CONTENTS - Part 2 Sherwood Development Plan

	Page
Chapter 1	General Information..... 1
Chapter 2	The Planning Process 2-1
Figure #1	Sherwood Comprehensive Planning Process 2-5
Figure #2	Periodic Review Process..... 2-6
Chapter 3	Growth Management..... 3-1
Table III-1	Population Projections..... 3-4
Table III-2	Housing Units in UGB..... 3-4
Table III-3	Employment in UGB..... 3-4
Table III-4	Buildable Land Inventory..... 3-10
Chapter 4	Land Use 4-1
Table IV-1	1990 UGB Land Use & Buildable Land Inventory 4-4
Table IV-2	1989 Land Usage 4-5
Table IV-3	Housing Data..... 4-12
Table IV-4	Planned Residential Land Use & Population..... 4-16
Table IV-5	Service Economy 4-24
Table IV-6	State Employment Forecasts 4-28
Table IV-7	Sherwood's Major Employers..... 4-31
Table IV-8	Sherwood Income, Occupation & Employment Data 4-32
Table IV-9	Vacant Industrial Land Inventory..... 4-33
Map IV-1	Vacant Industrial Land Map..... 4-34
Table IV-10	Vacant Commercial Land Inventory 4-35
Map IV-2	Vacant Commercial Land Map 4-36
Map IV-3	Plan/Zone Map 4-37
Chapter 5	Environmental Resources 5-1
Table V-1	Open Spaces & Natural Resource Inventory..... 5-5
Map V-1	Natural Resources & Recreation Plan Map..... 5-6
Chapter 6	Transportation 6-1
Table VI-1	Trip Generation Rates 6-3
Map VI-1	Transportation Plan Map 6-4
Figure VI-1	Functional Classification..... 6-5-6
Chapter 7	Community Facilities & Services 7-1
Table VII-1	Service Providers 7-3
Figure VII-1	Existing Sewer System..... 7-7
Table VII-2	Wastewater Flow Design Criteria 7-8
Figure VII-2	Improvements to Existing Sewer Systems 7-11
Figure VII-3	Major Sewerline Expansion 7-13
Figure VII-4	Existing Water System 7-16
Figure VII-5	Water System Improvements 7-22
Figure VII-6	Water System Expansion 7-24
Figure VII-7	Storm Drainage Plan 7-32

Chapter 8	Urban Growth Boundary Additions	8-1
Table VIII-1	Summary of UGB Additions 2002-2004	8-2
Table VIII-2	Concept Plan Summary by Area	8-3
Chapter 9	Special Area Plans	9-1
Figure IX-1	Town Center Boundary	9-5

LIST OF EXHIBITS – Part 2 Sherwood Development Plan

EXHIBIT A – Housing Needs Analysis 2018-2038	
--	--

CITY OF SHERWOOD

Date: March 20, 2018

Staff Report

PA 18-01 Housing Need Analysis 2018-2038 and Comprehensive Plan Part I Update

To: SHERWOOD CITY COUNCIL

From:



Carrie Brennecke, Senior Planner

Proposal overview: Adoption of the Housing Needs Analysis (HNA) for the 2018 to 2038 planning period, and a text amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan to include the HNA 2018-2038 as Exhibit A. The Housing Needs Analysis provides the factual basis to support the Urban Growth Boundary (UGB) expansion proposal the city is submitting to Metro by May 31, 2018. The HNA also provides the factual basis for future planning efforts related to housing goals and policies or the upcoming update and revisions to the City's Comprehensive Plan.

Proposed Actions:

1. Adopt the Housing Needs Analysis 2018-2038
2. Amend the Sherwood Comprehensive Plan, Part 2 to include the HNA 2018-2038 as Exhibit A.

I. OVERVIEW

- A. Applicant: This is a City initiated amendment to the Sherwood Comprehensive Plan, Part 2 Sherwood Development Plan: Exhibit A
- B. Location: The City's Comprehensive Plan is a long term growth plan for the City of Sherwood, and applies city wide.
- C. Review Type: The proposed plan amendment requires a Type V review, which involves public hearings before the Planning Commission and City Council. The Planning Commission made a recommendation to the City Council who will make the final decision. Any appeal of the City Council decision would go directly to the Oregon Land Use Board of Appeals.
- D. Public Notice and Hearing: The project is a legislative amendment. Notice of the first evidentiary hearing was provided to the Department of Land Conservation and Development (DLCD) and Metro on January 8th, 2018. Notice of the February 13, 2018 Planning Commission hearing was published in the Tigard Times on January 25, 2018 and the Sherwood Gazette on February 1, 2018. Notice was also posted in 5 public locations around town.
- E. Review Criteria:
The required findings for the Plan Amendment are identified in Section 16.80.030 of the Sherwood Zoning and Community Development Code (SZCDC). In addition, the amendment must be consistent with Goals 1, 2 and 10 of the Statewide Planning Goals and Chapter 4 of the Comprehensive Plan.

F. Background:

The HNA 2018-2038 describes the current housing market, historical and recent housing trends, current and future demographic characteristics of Sherwood, and forecasts future housing needs based on these considerations and the Metro 2016 Urban Growth Report forecasted growth rate. The HNA contains a Buildable Lands Inventory and address residential land sufficiency inside the UGB to meet Sherwood’s housing needs for the 20-year planning horizon.

The HNA was initially developed as part of the Sherwood West Preliminary Concept Plan in 2015. The initial version of the HNA was for the time period 2015-2035. The HNA informed the preliminary concept plan process for an area of Sherwood’s Urban Reserve Area 5B. The HNA 2015-2035 was not adopted by the City or processed as an amendment to the City’s Comprehensive Plan.

For the purposes of submitting a proposal for Metro’s 2018 Urban Growth Management Decision, the City updated the HNA to reflect the 2018-2038 time period. The HNA provides a factual basis to support future planning efforts related to housing. The purpose of adopting the HNA 2018-2038 at this time is to provide an analysis of Sherwood’s 20-year housing need for the Metro 2018 Urban Growth Management Decision. The proposed amendment to the Comprehensive Plan for the inclusion of the HNA 2018-2038 contains no updates to Sherwood’s Comprehensive Plan goals and policies, updates to the Plan and Zoning Map, or any updates to the Zoning and Development Code. The HNA is for background information and data purposes only and prepares for the update and revision to the housing element of the City’s Comprehensive Plan. A complete update of Sherwood’s Comprehensive Plan will take place between 2018 and 2020. Sherwood’s current Comprehensive Plan Part 2 policies, and Sherwood’s Zoning and Development Code provide the information for the findings for the Statewide Planning Goals and other requirements outlined in this document.

II. PUBLIC COMMENTS

The City posted notices of this public hearing in five locations around the city on January 26, 2018. Notice was also published in the Tigard Times and Sherwood Gazette as stated above. Copies of the full comments received are included in the record.

III. AGENCY/DEPARTMENTAL COMMENTS

The City requested comments from affected departments and agencies on January 8, 2018. Copies of the full comments will be included in the record.

IV. APPLICABLE DEVELOPMENT CODE CRITERIA

Chapter 16.80 Plan Amendments

16.80.030 – Review Criteria

A. Text Amendment

An amendment to the text of the Comprehensive Plan shall be based upon a need for such an amendment as identified by the Council or the Commission. Such an amendment shall be consistent with the intent of the adopted Sherwood Comprehensive Plan, and with all other provisions of the

Plan, the Transportation System Plan and this Code, and with any applicable State or City statutes and regulations, including this Section.

The last complete HNA update for Sherwood occurred in 1990. The 2015 HNA update became a priority when Metro awarded the city a CET grant for the concept planning of Sherwood's Urban Reserve Area 5B. The 2015 HNA update provided background-housing data for the Sherwood West Preliminary Concept Plan. This new update to the HNA, funded by the City, reflects the 2018-2038 planning period to support its' Urban Growth Boundary (UGB) expansion proposal that will be submitted to Metro in late spring of 2018. It is a required criterion of applications includes an acknowledged HNA within the last 5 years. The City intends to submit a proposal to Metro in May 2018 to consider lands in Urban Growth Area 5B (Sherwood West) as part of the 2018 Urban Growth Management Decision.

The adoption and inclusion of the HNA 2018-2028 into the Sherwood's Comprehensive Plan Part 2: Exhibit A, will provide factual housing background data to support the city's Comprehensive Plan Update, which will occur between 2018 and 2020. The HNA was developed to comply with requirements of statewide planning policies that govern planning for housing and residential development, Goal 10, its implementing Metropolitan Housing Rule (OAR 660-007), and Metro's 2040 Functional Growth Management Plan.

FINDING: The proposed Comprehensive Plan Part II amendment to include the HNA 2018-2038 as Exhibit A, is needed in order for the City to submit a complete application to Metro for the 2018 Urban Growth Management Decision. The HNA updates the City's understanding of the City's housing needs, ensuring compliance with Goal 10. The findings of the HNA are that the City is not compliant with Goal 10. As a result, Sherwood is asking for inclusion in the 2018 Urban Growth Management decision. The City Council in December 2017 supported a letter of interest sent to Metro as an initial first step toward an UGB expansion if Metro's 2018 Urban Growth Management Decision warrants additional land supply needs. Sherwood's HNA 2018-2038 is constant with applicable State statutes, specifically Statewide Planning Goal 10 and the Metropolitan Housing Rule (OAR 600-007), and will be used to further refine and update goals and policies related to housing needs through the city's Comprehensive Plan update

B. Map Amendment

An amendment to the City Zoning Map may be granted, provided that the proposal satisfies all applicable requirements of the adopted Sherwood Comprehensive Plan, the Transportation System Plan and this Code, and that:

- 1. The proposed amendment is consistent with the goals and policies of the Comprehensive Plan and the Transportation System Plan.**
- 2. There is an existing and demonstrable need for the particular uses and zoning proposed, taking into account the importance of such uses to the economy of the City, the existing market demand for any goods or services which such uses will provide, the presence or absence and location of other such uses or similar uses in the area, and the general public good.**
- 3. The proposed amendment is timely, considering the pattern of development in the area, surrounding land uses, any changes which may have occurred in the neighborhood or community to warrant the proposed amendment, and the availability of utilities and services to serve all potential uses in the proposed zoning district.**
- 4. Other lands in the City already zoned for the proposed uses are either unavailable or unsuitable for immediate development due to location, size or other factors.**

The proposed text amendment to the Sherwood Comprehensive Plan, Part 2: Exhibit A does not include a map amendment(s).

FINDING: Provisions of B1-4 above are not applicable to this request.

C. Transportation Planning Rule Consistency

1. Review of plan and text amendment applications for effect on transportation facilities. Proposals shall be reviewed to determine whether it significantly affects a transportation facility, in accordance

with OAR 660-12-0060 (the TPR). Review is required when a development application includes a proposed amendment to the Comprehensive Plan or changes to land use regulations.

The proposed adoption of the HNA 2018-2038 and text amendment to the Comprehensive Plan provides background data and analysis on housing needs. The update provides factual basis for future planning efforts related to growth and housing and prepares for a Comprehensive Plan update. No housing goals, policies or land use regulations are being proposed or amended as part of this plan amendment.

FINDING: The adoption of the updated HNA provides the city with the technical and factual background relating to current and future housing needs. No changes to comprehensive plan policies or land use regulations are proposed. The amendment will have no effect on transportation facilities.

V. APPLICABLE COMPREHENSIVE PLAN POLICIES

Chapter 4 - Residential Land Use

Policy 1 Residential areas will be developed in a manner which will insure that the integrity of the community is preserved and strengthened.

Strategy:

- Higher density residential development will be located so as to take advantage of arterial and major collector streets; nearby shopping, parks, mass transit and other major public facilities and services.
- All residential development will be located so as to minimize the impact of nonresidential uses and traffic.
- New housing will be located so as to be compatible with existing housing. Infill and redevelopment projects will not adversely affect established neighborhoods, and additional public notice will be required for infill projects, as depicted on the “Infill Notification Area” map, Map IV-1.
- Buffering techniques shall be used to prevent the adverse effects of one use upon another. These techniques may include varying densities and types of residential use, design features and special construction standards.
- The City will encourage the use of the Planned Unit Development (PUD) on parcels of five acres or more in all residential land use categories in order to allow flexibility and innovation in site development and land use compatibility.

Policy 2 The City will insure that an adequate distribution of housing styles and tenures are available.

Strategy:

- New developments will be encouraged to provide an adequate distribution of owner occupied and renter occupied units of all types and densities.
- The City will allocate land to residential densities and housing types in accordance with a periodic assessment of housing needs.
- The City will maintain a minimum overall density of six (6) dwelling units an acre.

Policy 3 The City will insure the availability of affordable housing and locational choice for all income groups.

Strategy:

- The City will participate in the regional “fair share” housing program to provide housing opportunities for the low and moderate income, elderly, large family and handicapped household.
- The City will reduce housing costs by allocating land for smaller lot single family and manufactured housing uses, providing multi-family housing opportunities, expediting the development review process, and assuring that an adequate supply of buildable land is available for all residential categories of use.
- Housing shall be of a design and quality compatible with the neighborhood in which it is located.

Policy 4 The City shall provide housing and special care opportunities for the elderly, disadvantaged and children.

Strategy:

- Residential homes for physically or mentally handicapped persons shall be a permitted use in single family zones.
- Residential care facilities for mentally handicapped persons shall be permitted as a conditional use in the City's medium and high density zones.
- Family Day Care Providers which accommodate fewer than 13 children or less in the provider's home, shall be permitted in residential and commercial zones.
- For elderly family members, accessory units, elder cottages, homesharing or share-living residences may be a conditional use in some residential zones.

Policy 5 The City shall encourage government assisted housing for low to moderate income families.

Policy 6 The City will create, designate and administer five residential zones specifying the purpose and standards of each consistent with the need for a balance in housing densities, styles, prices and tenures.

c. RESIDENTIAL ZONES OBJECTIVES

The following subsection defines the five residential land use classifications to be used in the land use element giving the purpose and standards of each. All density ranges are for minimum lot sizes and shall not restrict larger lots within that residential designation. For each residential designation on the Plan/Zone Map, maximum density has been indicated. The maximum density represents the upper limit which may be allowed - it is not a commitment that all land in that area can or should develop to that density. The implementing ordinances contained in the City Zoning Code define the circumstances under which the maximum density is permissible. Density transfers are applied in instances where appropriate to achieve the purposes of the Plan such as the encouragement of quality planned unit developments, flood plain protection, greenway and park acquisition, and the use of efficient energy systems. Unless these circumstances pertain, the maximum density allowable will be specific in the zoning standards for each designation.

1) Very Low Density Residential (VLDR)

Minimum Site Standards:

1 DU/Acre, 1 acre minimum lot size

This designation is intended to provide for single family homes on larger lots and in PUD's in the following general areas:

- Where natural features such as topography, soil conditions or natural hazards make development to higher densities undesirable. This zone is appropriate for the Tonquin Scabland Natural Area.
- Along the fringe of expanding urban development where the transition from rural to urban densities is occurring.
- Where a full range of urban services may not be available but where a minimum of urban sewer and water service is available or can be provided in conjunction with urban development.

2) Low Density Residential (LDR)

Minimum Site Standards:

5 DU/Acre, 7000 sf lot minimum

This designation is intended to provide for the most common urban single family detached home. The designation is applicable in the following general areas:

- Where single family development on individual lots will be compatible with existing natural features and surrounding uses.
- Where a full range of urban facilities and services are provided or can be provided in conjunction with development.
- Where major streets serving development are adequate or can be

- provided in conjunction with development.
- 3) **Medium Density Residential Low (MDRL)**
Minimum Site Standards:
8 DU/Acre, 5,000 sq. ft. lot minimum
This designation is intended to provide for dwellings on smaller lots, duplexes, manufactured homes on individual lots, and manufactured home parks. The designation is applicable in the following general areas:
- Where there is easy access to shopping.
 - Where a full range of urban facilities and services are provided in conjunction with development.
 - Where major streets are adequate or can be provided in conjunction with development.
- 4) **Medium Density Residential High (MDRH)**
Minimum Site Standards:
11 DU/Acre, 3,200-5,000 sf lot minimum.
This designation is intended to provide for a variety of medium density housing styles, designs, and amenities in keeping with sound site planning. Included in this designation are, low density apartments and condominiums, manufactured homes on individual lots, and row housing. This designation is applicable in the following general areas:
- Where related institutional, public and commercial uses may be appropriately mixed or are in close proximity to compatible medium density residential uses.
 - Where a full range of urban facilities and services are provided in conjunction with development.
 - Where medium urban densities can be maintained and supported without significant adverse impacts on neighborhood character or environmental quality.
- 5) **High Density Residential (HDR)**
Minimum Site Standards:
16 DU/Acre, 2,000-5,000 sf lot minimum
This designation is intended to provide for high density multi-family urban housing with a diversity in style, design and amenities in keeping with sound site planning principles in the following general areas:
- Where related public, institutional and commercial uses may be mixed with or are in close proximity to compatible high density residential uses.
 - Where a full range of urban facilities and services are available at adequate levels to support high density residential development.
 - Where direct access to major fully improved streets is available.
 - Where higher density development will not exceed land, air or water carrying capacities.

Policy 7 In addition to and consistent with the General Land Use policies, the City will encourage appropriate residential densities in the Town Center Overlay District, consistent with the vision, policies, and strategies in the Sherwood Town Center Plan.

The policies above are the residential land use policies from Sherwood's current Comprehensive Plan, Part II. No additions, changes, or modifications, to the policies in the Comprehensive Plan are part of this text amendment. No amendments to the Zoning and Development Code are proposed as part of this Comprehensive Plan text amendment. The policies listed above will remain the governing housing policies in Sherwood's Comprehensive Plan. The HNA 2018-2038 amends the factual background information and data on which future planning efforts related to housing will be based. The HNA prepares the city for an upcoming Comprehensive Plan update, which will update the residential land use policies to reflect the conclusions on housing needs in the HNA and reflect the community's vision. A completely revised and up to date housing element chapter of the

Comprehensive Plan will be included as part of the Comprehensive Plan update occurring between 2018 and 2020.

The Comprehensive Plan's current residential land use policies and the Zoning and Development Code are consistent with Statewide Planning Goal 10, Metropolitan Housing Rule (OAR 660-007), and Metro's 2040 Functional Growth Management Plan. No changes to the city's current housing goals and policies and to the city's Zoning and Development Code are required as part of the adoption of the HNA 2018-2038 and proposed text amendment.

FINDING: The existing housing policies in the current adopted Comprehensive Plan, Part II, will remain intact and will continue to be the guiding housing policies for the City until the completes and adopts its' Comprehensive Plan update. The proposed Comprehensive Plan, Part II: Exhibit A text amendment is not substantive in nature, as it does not amend the Sherwood Comprehensive Plan goals and policies, the Sherwood Plan and Zoning Map, or the Sherwood Zoning and Development Code. The proposed adoption of Sherwood's HNA 2018-2038 and text amendment will provide for factual background information only and will not substantively change current Comprehensive Plan goals and policies or land use regulations.

VI. APPLICABLE STATEWIDE PLANNING GOALS

Goal 1 (Citizen Involvement)

Objective: To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

FINDING: Staff utilized the public notice requirements of the Sherwood Zoning and Community Development Code, Chapter 16.72, to notify the public of the proposed plan amendments. The City's public notice requirements comply with Goal 1. . The Planning Commission and City Council will hold public hearings on this request prior to adopting the HNA and text amendment to the Comprehensive Plan. Public comments received will be addressed and included as part of the record to this plan amendment.

The text amendment, will include HNA 2018-2038 as part of the Comprehensive Plan, Part II: Exhibit A. The adoption of the HNA provides technical and factual information and contains no updates or revisions to Comprehensive Plan goals and policies or land use regulations. A complete and robust public involvement program, consistent with Goal 1, will be developed and implemented as part of the Comprehensive Plan update (2018-2020), which will address housing goals and policies.

Goal 2 (Land Use Planning)

Objective: To establish a land use planning process and policy framework as a basis for all decision and actions related to the use of land and to assure an adequate factual basis for such decisions and actions.

FINDING: This text amendment process complies with the local, regional and state requirements. Legislative decisions first require a Planning Commission public hearing and recommendation to the City Council. The Sherwood City Council makes a final decision based on stated findings. The Planning Commission hearing is scheduled for February 13, 2018 and the City Council hearings will be held on March 27, 2018 and April 3, 2010. The Planning Commission and City Council hearings are open to the public.

The proposed amendment does not alter any goals and policies in the Comprehensive Plan, or changes to Sherwood Plan and Zoning Map and Zoning and Development Code. The HNA will provide the factual basis for future planning decisions and actions as the City's Comprehensive Plan is updated over the next few years.

Agencies possibly affected by the text amendment were notified at the same time as the 35-day notice for the Post Acknowledgement Plan Amendment was sent to DLCD. The record will include all comments received by internal city departments and outside agencies and jurisdictions.

Goal 3 (Agricultural Lands)

Goal 4 (Forest Lands)

FINDING: Goals 3-4 not applicable to Sherwood.

Goal 5 (Natural Resources, Scenic and Historic Areas and Open Spaces)

Goal 6 (Air, Water and Land Resources Quality)

Goal 7 (Areas Subject to Natural Hazards)

Goal 8 (Recreational Needs)

FINDING: The Statewide Planning Goals 5-8 do not specifically apply to the proposed plan amendments. The information from the HNA, such as the household forecast, residential land sufficiency and buildable lands inventory provide a factual basis of information for the Comprehensive Plan update which will include updating and City's goals and policies related to Goals 5-8 and the accompanying technical documents. The proposed amendment does not alter any goals and policies in the Comprehensive Plan, Sherwood Plan and Zoning Map or any land use regulations in the Zoning and Development Code, at this time. In any event, there is no evidence to suggest that the proposed text amendment is in conflict with these goals. The proposed text amendment does not make any substantive changes to the Sherwood Comprehensive Plan or implementing ordinances that affect compliance with Goals 5-8.

Goal 9 (Economic Development)

Objective: To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare and prosperity of Oregon's citizens.

FINDING: Information in the HNA, such as the household forecast, residential land sufficiency and buildable lands inventory provides the factual basis of information for the Comprehensive Plan update which will include updating and City's goals and policies related to Goals 9 and the Economic Opportunities Analysis. The proposed text amendment does not make any substantive changes to the Sherwood Comprehensive Plan or implementing ordinances that affect compliance with Goal 9.

Goal 10 (Housing)

Objective: To provide for the housing needs of citizens of the state.

Buildable land for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density.

The City's primary obligations under Goal 10 and its implementing Metropolitan Housing Rule (OAR 660-007) are to (1) provide and plan for enough residential land to accommodate forecasted housing needs for the next 20-years; (2) designate land in a way that provides the opportunity for 50% new housing to be either multifamily or single family attached housing; and (3) achieve an average density of six dwelling units per net acre.

Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as "all housing [types] on land zoned for residential use or mixed residential and commercial use that is determined to meet the need shown for housing within an urban growth boundary at [particular] price ranges and rent levels[, including] that are affordable to households within the county with a variety of incomes, including but not limited to households with

low incomes, very low incomes and extremely low incomes, as those terms are defined by the United States Department of Housing and Urban Development” ORS 197.303 defines needed housing types:

- (a) Housing that includes, but is not limited to, attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;
- (c) Mobile home or manufactured dwelling parks as provided in ORS 197.475 to 197.490; and
- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions.

In summary, Sherwood must identify needs for all of the housing types listed above as well as adopt policies that increase the likelihood that needed housing types will be developed.

FINDING: The Housing Needs Analysis 2018-2038 provides information about the factors that could affect housing development including: historical and recent development trends; projections of new housing units needed in the next 20 years; demographic and socioeconomic factors affecting housing choice, and regional and local trends in housing cost and affordability. The HNA provides a forecast of housing by type and density of housing. Pages 28-31, of the HNA, demonstrates how the existing city zones provides for the needed housing types outlined in ORS 197.303. The forecasted growth rate in the HNA 2018-2038 is 0.8% based off Metro’s 2016 Urban Growth Report forecast. The HNA includes a Buildable Lands Inventory (BLI) for housing within Urban Growth Boundary. The BLI demonstrates that current land use designation provide an adequate short- and long-term land supply for housing development for meeting existing needs and 70% projected growth over the next 20-years. It analyzes existing development patterns and intensity, existing land use designations and zoning, and building constraints to determine where there is vacant land and/or land that is likely to be redeveloped, and compares the exiting supply of land to emerging development trends and projection of needed housing units.

The HNA 2018-2038, which includes the BLI, provides a factual basis that will inform the update to the housing element of the Comprehensive Plan scheduled for 2018-2020, as well as updates to its City’s implementing ordinances. No changes to the housing goals and policies of the Comprehensive Plan are proposed at this time. No changes to the implementing ordinances of the Comprehensive Plan, Sherwood’s Plan and Zoning Map and Sherwood’s Zoning the Development Code, are proposed with the adoption of the HNA 2018-2038 and the Comprehensive Plan text amendment incorporating the HNA 2018-2038 into the Comprehensive Plan Background Data and Analysis as a reference document.

The HNA 2018-2038 makes the following conclusions in regards to compliance with Goal 10:

- (1) Provide and plan for enough residential land to accommodate forecasted housing needs for the next 20-years:
 - Sherwood is forecast to add 1,653 new households between 2018 and 2038. Of these 697 new households are inside existing city limits; 956 new households are outside current city limits.
 - Sherwood’s land base can accommodate most of the forecast for growth. Vacant and partially vacant land in the Sherwood Planning Area has the capacity to accommodate about 70% of the forecast for new housing on areas within the city limits and the Sherwood Planning Area.
 - Sherwood has a deficit of land for housing. The deficit of land is for 497 dwelling units. The largest deficits are in Medium Density Residential-Low (121 dwelling units); Medium Density Residential-High (153); and High Density Residential (179 dwelling units).

- To provide adequate land supply Sherwood will need to continue to annex the Brookman Area which is primary designated residential in the Sherwood Planning Area. Without Brookman area developing, the City has a projected deficit of 922 dwelling units.

Summary of development capacity based on changes from 2015 to 2017, dwelling units, Sherwood city limits and Brookman and other unincorporated areas

	Buildable Acres	Density Assumption	Dwelling units
Very Low Density Residential	26	2.9	76
Low Density Residential	22	6.5	144
Medium Density Residential-Low	68	6.1	392
Medium Density Residential-High	41	7.7	291
High Density Residential	17	19.1	253
Total	175	6.6	1,156

Comparison of capacity of existing residential land with demand for new dwelling units, dwelling units, Sherwood planning area, 2018-2038

Zone	Capacity (Needed Densities)	Housing Demand	Comparison Capacity minus
Very Low Density Residential	76	90	-14
Low Density Residential	144	174	-30
Medium Density Residential-Low	392	513	-121
Medium Density Residential-High	291	444	-153
High Density Residential	253	432	-179
Total	1,156	1,653	-497

The Metropolitan Housing Rule

OAR 660-007 (the Metropolitan Housing rule) is designed to “assure opportunity for the provision of adequate numbers of needed housing units and the efficient use of land within the Metropolitan Portland (Metro) urban growth boundary.”

OAR 660-007 also specifies the mix and density of new residential construction for cities within the Metro Urban Growth Boundary (UGB):

“Provide the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing or justify an alternative percentage based on changing circumstances” (OAR 660-007-0030 (1)).

OAR 660-007-0035 sets specific density targets for cities in the Metro UGB. Sherwood average density target is six dwelling units per net buildable acre.

FINDING:

The HNA forecast of needed housing unit by mix, Sherwood Planning Area, 2018-2038

Housing Type	New Dwelling Units (DU)	Percent
Single-family detached	827	50%
Single-family attached	165	10%
Multifamily	661	40%
Total	1,653	

The assumed housing mix meets the requirements of OAR 6660-007-0030 to “designate sufficient buildable land the opportunity for at least 50 percent of new residential units to be attached single family housing or multiple family housing.” Sherwood’s Zoning and Development Code allows for the opportunity for attached and/or multifamily housing in the MDRL, MDRH, HDR zones. Approximately 126 of the 175 buildable acres in Sherwood City Limits and Planning Area are in these zones.

The HNA demonstrates that development in Sherwood occurred at considerably higher densities than the minimum allowable densities in each zone. The overall development in Sherwood average from 2000-2014 averaged 8.2 dwelling units per net acre.

The needed density in Sherwood is consistent with the densities achieved in residential zones Sherwood over the 2000-2014 period. These densities are:

- Very Low Density Residential (VLDR): 2.9 dwelling units per net acre
- Low Density Residential (LDR): 6.5 dwelling units per net acre
- Medium Density Residential – Low (MDRL): 6.1 dwelling units per net acre
- Medium Density Residential – High (MDRH): 7.7 dwelling units per net acre
- High Density Residential (HDR): 19.1 dwelling units per net acre

These densities, when applied to Sherwood’s supply of buildable land in the capacity analysis results in an overall density of 7.3 dwelling units per net acre. This housing density meets the requirements of OAR 660-007-0035 to “provide for an overall density of six or more dwelling units per net buildable acre.” The future density (7.3) is lower than the historical density (8.2) due to the deficit of available HDR and MDRH land.

The HNA concludes that both the maximum density (and minimum lot size) and the historical development density estimates exceed the State requirement (OAR 660-007-0035(2)) to “provide for an overall density of six or more dwelling units per net buildable acre.” The estimate results in an average density of between 7.3 to 8.6 dwelling units per net acre.

Range of capacity estimates, Sherwood vacant and partially vacant land, gross acres and gross densities, 2015

Zone	Buildable Acres	Capacity based on Zoning: Minimum Densities		Capacity based on Zoning: Maximum Densities and Minimum Lot Sizes		Capacity based on Historical Development Densities		Difference in Capacity between Maximum Densities and Historical Densities	
		Dwelling units	Derived Density	Dwelling units	Derived Density	Density Assumption	Dwelling units	Difference in Dwelling Units	Difference in Density
Land within City Limits									
VLDR	24	19	0.8	94	3.9	2.9	69	25	1.0
VLDR_PUD	1	-	-	4	3.8	2.9	3	1	0.9
LDR	22	71	3.2	113	5.1	6.5	144	(31)	(1.4)
MDRL	14	75	5.2	112	7.8	6.1	88	24	1.7
MDRH	21	111	5.3	223	10.7	7.7	161	62	3.0
HDR	14	224	16.0	303	21.7	19.1	266	37	2.6
Subtotal	96	500	5.2	849	8.8		731	118	8.8
Brookman and Other Unincorporated Areas									
VLDR	1	2	1.6	4	3.2	2.9	3	1	0.3
MDRL	52	275	5.3	401	7.7	6.1	317	84	1.6
MDRH	8	36	4.7	62	8.1	7.7	58	4	0.4
MDRL/H*	15	78	5.3	109	7.5	7.5	109	-	-
HDR	3	49	15.4	70	22.1	19.1	60	10	3.0
Subtotal	79	440	5.6	661	8.4		547	114	8.4
Total	175	940	5.4	1,510	8.6	7.3	1,278	232	1.3

The conclusion of the housing needed analysis is that Sherwood’s historical densities meet Sherwood’s future housing needs. However, the upcoming update the Sherwood’s Comprehensive Plan will consider revisions to Sherwood’s housing policies and implementation ordinances to address the barriers identified in the HNA to developing the forecasted needed housing types, specifically townhouses and multifamily housing, which is needed to meet the housing demand for growth of people over 65, young families, and moderate-income households. Sherwood has a deficit of moderate and high density land in its current planning area. The City of Sherwood is submitting a proposal for Metro’s 2018 Urban Growth Management Decision for the inclusion of land in Sherwood’s urban reserve (Sherwood West) into the UGB. The conclusions of this HNA inform the proposal to Metro in that the City has a deficit of land for housing in the 20-year forecast.

Goal 11 (Public Facilities and Services)

Objection: To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

FINDING: The information from the HNA, such as the household forecast, residential land sufficiency and buildable lands inventory will provide a factual basis of information for the Comprehensive Plan update with includes updating and City's goals and policies related to Goal 11 Public Facilities and Services as well as provide a data for on-going updates to public facility master plans and capital improvement plans. The proposed text amendment does not make any substantive changes to the Sherwood Comprehensive Plan or implementing ordinances that affect compliance with Goals 11.

Goal 12 (Transportation)

Objective: To provide and encourage a safe, convenient and economic transportation system.

FINDING: The information from the HNA, such as the household forecast, residential land sufficiency and buildable lands inventory will provide a factual basis of information for the Comprehensive Plan update with includes updating and City's goals and policies related to Goals 11 Transportation. The HNA and accompanying text amendment do not propose any changes to the Comprehensive Plan transportation goals and policies, Sherwood Plan and Zoning Map, or the Zoning and Development Code. This application does not involve rezoning any lands, which would trigger the need for the Transportation Planning Rule analysis. The proposed text amendment does not conflict or make substantive changes to compliance with Goal 12.

Goal 13 (Energy Conservation)

Objective: To conserve energy.

FINDING: The proposed plan amendment proposes no changes to comprehensive plan goals and policies or the City's Zoning and Development Code that would trigger implementation of Goal 13. The proposed text amendment does not conflict or make substantive changes to compliance with Goal 13.

Goal 14 (Urbanization)

Objective: To provide the orderly and efficient transition from rural to urban land uses.

FINDING: The information from the HNA, such as the household forecast, residential land sufficiency and buildable lands inventory will provide a factual basis of information for the Comprehensive Plan update which includes updating and City's goals and policies related to Goals 14. The primary reason for adopting the HNA 2018-2038 and processing a text amendment to the Comprehensive Plan at this time (prior to adoption of the comprehensive Plan update) is for the purposes of submitting a proposal for Metro's 2018 Urban Growth Management Decision for the addition of lands in Sherwood's Urban Reserve to the Urban Growth Boundary. The HNA 2018-2038 concluded Sherwood has a deficit of approximately 497 homes in its 20-year supply. The conclusion is based off the Metro forecast of 0.8% growth which is significantly lower than Sherwood's historic growth rate over the past 2 decades of 8%. In order for the City to have sufficient lands to support the 20-year housing need, an expansion to Sherwood's UGB would be needed unless the City significantly increased densities in existing zones throughout the city. The HNA provides the factual information and background data for future decisions regarding the expansion of Sherwood's urban growth boundary and the efficient transition from rural to urban land uses.

The HNA and accompanying text amendment do not propose any changes to the Comprehensive Plan transportation goals and policies, Sherwood Plan and Zoning Map, or the Zoning and Development Code. This application does not involve rezoning any lands. The proposed text amendment does not conflict or make substantive changes to compliance with Goal 14 but provides a factual basis for future regional and local urbanization decisions.

- Goal 15 (Willamette River Greenway)**
- Goal 16 (Estuarine Resources)**
- Goal 17 (Coastal Shorelands)**
- Goal 18 (Beaches and Dunes)**
- Goal 19 (Ocean Resources)**

FINDING: Goals 15-19 not applicable to Sherwood.

VII. RECOMMENDATION

Based on a review of the applicable code provisions, agency comments and staff review, staff finds that the Plan Amendment is consistent with the applicable criteria and therefore, staff **recommends APPROVAL** of the Housing Needs Analysis 2018-2038 and PA 18-01 amendment to the City of Sherwood Comprehensive, Part 2 to include the HNA 2018-2035 as Exhibit A.

VIII. EXHIBITS

- A. Housing Needs Analysis 2018-2038
- B. Proposed amendment to Comprehensive Plan, Part 2: Exhibit A
- C. Staff Report and Findings of Fact

Sherwood Field House Monthly Report February 18

<u>Febuary18</u>	<u>Feb-18</u>		<u>YTD</u>		<u>Feb-17</u>
Usage		People		People	People
	<u>Count</u>	<u>Served*</u>	<u>Count</u>	<u>Served*</u>	<u>Served*</u>
Leagues	5	480	17	3689	448
Rentals	102	1530	529	7710	1521
Other (Classes)					
[1] Day Use	12	117	53	389	79
Total Usage		2127		11788	2048
Income FY 17 18	<u>Feb-18</u>	<u>YTD</u>			
Rentals	\$7,015	\$36,676			
League fees (indoor)	\$6,460	\$51,513			
Card fees (indoor)	\$121	\$2,758			
Day Use	\$309	\$1,070			
Advertising					
Snacks	\$1,338	\$8,915			
Classes					
Total	\$15,243	\$100,932			
Income FY 16 17	<u>Feb-17</u>	<u>YTD</u>			
Rentals	\$7,430	\$34,136			
League fees (indoor)	\$9,205	\$45,965			
Card fees (indoor)	\$157	\$1,272			
Day Use	\$287	\$1,689			
Advertising					
Snacks	\$1,212	\$6,534			
Classes					
Total	\$18,291	\$89,596			

*Estimated number of people served.



Fields and Gyms

- Youth soccer played 31 games at Snyder Park during the month.
- Youth basketball played 142 recreational games during the month at various gyms. They also played 40 classic games at SMS during the same time. That is 182 games with 142 of the played over four weekends.

Field House

- The second session of youth started, but there are only 12 teams.
- There are three adult leagues still running and staff is trying to start an over 35 league.
- There have been over a hundred pre-school play kids during the month.

Respectfully Submitted

Lance Gilgan

February 27, 2018