



# NOTICE OF DECISION

**TAX LOTS:** 3S1060000103, 3S106B000100,  
and 3S106B000200 (as adjusted)  
**CASE NO:** SUB 18-02  
**DATE OF  
NOTICE:** July 15, 2019

**Applicants/Owners**

Brookman Development, LLC  
PO Box 61426  
Vancouver WA 98666

**Applicant/Owner's Representative**

AKS Engineering & Forestry LLC  
Chris Goodell 503-563-6151, [chrisg@aks-eng.com](mailto:chrisg@aks-eng.com)  
12965 SW Herman Rd, Suite 100, Tualatin OR 97062

George W Boyd Rev Living Trust and  
Carleen H. Brewer Rev Living Trust  
17769 SW Brookman Rd, Sherwood OR 97140

## NOTICE

Because you testified in writing or in person at the Planning Commission Public Hearing on this matter, you are receiving notice that on July 9, 2019, the Sherwood City Planning Commission approved the **Middlebrook Subdivision**. The applicant proposes to subdivide ±37.95 acre of land into 145 individual lots for single-family detached homes. The properties are zoned Medium Density Residential Low and Medium Density Residential High with densities between 5.5 to 11 units per net buildable acre. The proposed planned density of this development is ±6.08 units per net buildable acre. Access from the proposed subdivision will be from SW Brookman Road. The applicant also modifications to the Transportation Engineering Design standards for cul-de-sac length (SW Oberst Court) and 100-foot access spacing (SW Brookman Road). The decision was made after consideration of the staff report, application materials, and public testimony.

**INFORMATION:**

To obtain copies of file materials, go to <https://www.sherwoodoregon.gov/planning/project/middlebrook-subdivision> or contact Joy Chang, Senior Planner, at 503-625-4214 or [changj@sherwoodoregon.gov](mailto:changj@sherwoodoregon.gov).

## APPEAL

Pursuant to Sherwood Zoning and Community Development Code Section 16.72.010.B.3.d, an appeal of the Planning Commission decision may be made to the City Council. Pursuant to Section 16.76, any person who appeared before the local government, orally or in writing, on this matter may file a notice of intent to appeal to the City of Sherwood Planning Director not later than 14 days from the date of this notice. **An appeal of this decision must be filed no later than 5:00 PM on July 29, 2019.**

I, Joy Chang, for the Planning Department, City of Sherwood, State of Oregon, in Washington County, declare that the Notice of Decision SUB 18-02 and Middlebrook Subdivision was placed in a U.S. Postal receptacle, or transmitted via electronic mail, on July 15, 2019.



Joy Chang, Senior Planner  
City of Sherwood Planning Department

**Middlebrook Subdivision**  
**Case File: SUB 18-02**

**NOTICE OF DECISION**

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Pre-App. Meeting:	July 13, 2017
App. Submitted:	September 28, 2018
App. Complete:	January 15, 2019
Original 120-Day Deadline:	May 15, 2019
Extended 120-Day Deadline:	August 20, 2019
Hearing Date:	July 9, 2019

On July 9, 2019, the Planning Commission opened the public hearing and took public testimony on the subject application. Staff presented the staff report and after receiving testimonies from the applicant and the public, the Commission closed the record and considered the application before them.

At the hearing, seven community residents testified in opposition due to transportation safety, lack of connectivity to the existing Sherwood community, and timing of the proposed development (due to inadequate infrastructure). The applicant’s traffic engineer addressed transportation safety concerns by referencing their Traffic Impact Analysis (TIA) with supplemental documents that addressed impacts to the surrounding community due to the right-in/right-out restriction on Hwy 99W/Brookman Road and proportional mitigation. Oregon Department of Transportation, Washington County Land Use & Transportation, and the City Engineering reviewed the TIA and supporting documents and determined that the proposed development application adequately addresses transportation safety.

The Commission addressed the lack of connectivity to the existing Sherwood Community and reflected back to the Brookman Addition Concept Plan where certain communities did not want the Brookman Area connection to their neighborhood. As proposed, the site is bounded by Portland & Western railroad along with existing subdivision development to the north, prohibiting the community connection.

Josh Soper, City Attorney, reiterated Oregon land use laws tied to proposed development (120-day rule, approval criteria, etc.) and how development cannot be postponed due to the lack of infrastructure (e.g. signal at Hwy 99W/Brookman intersection, full improvements to SW Brookman Road). The responsible jurisdictional agencies have reviewed the proposal and determined with proposed mitigation, the infrastructure (including sewers) for the site will function adequately.

The Planning Commission approved the application, with amended conditions (Exhibit B.4), and based their decision on the findings of fact and conditions contained in this notice including the testimony received, staff report and Exhibits A-J.

  
**Jean Simson, Planning Commission Chair**

**Proposal:** The applicant proposes to subdivide ±37.95 acre of land into 145 individual lots for single-family detached homes. The properties are zoned Medium Density Residential Low and Medium Density Residential High with densities between 5.5 to 11 units per net buildable acre. The proposed planned density of this development is ±6.08 units per net buildable acre. Access from the proposed subdivision will be from SW Brookman Road. The applicant also modifications to the Transportation Engineering Design standards for cul-de-sac length (SW Oberst Court) and 100-foot access spacing (SW Brookman Road).

City of Engineering Department has approved the Design Modification for cul-de-sac length (SW Oberst Court), Exhibit B.2. However, the Design Modification for 100-foot access spacing (SW Brookman Road) was denied based on safety (Exhibit B.3).

The applicant has recently provided a modified site plan dated June 25, 2019, Sheets P07B and P14B identified as Exhibit A.2, which addresses the 100-foot access spacing standard, and site distance and safety concerns. The revised site plan shifts the planned street to SW Brookman Road to the west, which alters the configuration of Lots 1-17 of the preliminary plat. The modified site plan is further discussed in this report.

This project has been complete since January 15, 2019. However, during the preliminary land use design phase, it was found that a significant tree located on adjacent property created a sight distance issue that precluded the direct alignment of SW Oberst Road (north and south segments). The applicant and the adjacent property owner could not come to a reasonable agreement to have the tree removed, and Washington County was not willing to issue a sight distance design exemption as the conditions were a major safety concern. Resolving this issue required hearing delays and the extension of the 120-day rule for the applicant to meet the required standards.

## I. BACKGROUND

**A. Applicant / Owner / Contract Purchaser:**

Brookman Development, LLC  
PO Box 61426  
Vancouver WA 98666

**Owner:**

George W Boyd Rev Living Trust and  
Carleen H. Brewer Rev Living Trust  
17769 SW Brookman Rd, Sherwood OR 97140

**Applicant's Representative:**

AKS Engineering & Forestry LLC  
Chris Goodell 503-563-6151, [chrsg@aks-eng.com](mailto:chrsg@aks-eng.com)  
12965 SW Herman Rd, Suite 100, Tualatin OR 97062

- B. Assessor's Information:** Tax Map and Lots 3S1060000103, 3S106B000100, and 3S106B000200 (as adjusted)
- C. Location:** The properties are addressed as 17495, 17601 and 17769 SW Brookman Road
- D. Parcel Size:** The site is approximately 37.95 acres in size.
- E. Existing Development and Site Characteristics:** The site is in the southwestern portion of the City of Sherwood boundary and is generally located between the Portland & Western Railroad right-of-way to the north and SW Brookman Road to the south. A small portion of the site is also located on the north side of the railroad right-of-way. The site boundary is also based on an approved property line adjustment between parcels 3S106B00100 and 3S106B00200. There are two existing homes with accessory buildings on the site along with gravel driveway improvements. The site is currently and historically used for rural residential purposes.
- F. Site History:** The project site was part of the Brookman Addition Concept Plan area. The Brookman Area was brought into the Sherwood Urban Growth Boundary in 2002 via Metro Ordinance 02-0969B to provide for needed residential land. The area was concept planned between 2007 and 2009. In June 2009, via Ordinance 09-004, the City approved the concept plan and associated implementing Comprehensive Plan and Map Amendments.

In 2017, the applicant and property owners requested annexation of the site and required rights-of-way into the City of Sherwood under the annexation method detailed in Senate Bill 1573 and ORS 222. Sherwood City Council approved the annexation on July 25, 2017 under Ordinance 2017-004. In 2018, a property line adjustment (LLA 18-02) was approved between parcels 3S106B00100 and 3S106B00200.

- G. Zoning Classification and Comprehensive Plan Designation:** The property is zoned Medium Density Residential Low (MDRL) and Medium Density Residential High (MDRH) according to the Sherwood Plan and Zone Map. Per Section 16.12.010.C, the MDRL zoning district provides for single-family and two-family housing, manufactured housing and other related uses with a density of 5.6 to 8 dwelling units per acre. Section 16.12.010.D states that the MDRH zoning district provides for a variety of medium density housing, including single-family, two-family housing, manufactured housing multi-family housing, and other related uses with a density of 5.5 to 11 dwelling units per acre.
- H. Adjacent Zoning and Land Use:** Properties to the north are designated and zoned Low Density Residential Planned Unit Development and Medium Density Residential High. The properties to the west and east of the site have zoning designation of Medium Density Residential Low. Properties to the south of Brookman Road are outside the Urban Growth Boundary but within Metro's Urban Reserve Area in Rural Unincorporated Washington County.
- I. Review Type:** Proposed subdivisions over 50 lots are quasi-judicial actions and reviewed through a Type IV procedure. Type IV procedures are decided by the Planning Commission with appeals to the City Council.
- J. Public Notice and Hearing:** Notice of the application was mailed to property owners within 1,000 feet, posted on the property and distributed in five locations throughout the City on June 19, 2019 in accordance with § 16.72.020 of the SZCDC. The notice was published in the

*Times* (a newspaper of general circulation) on June 20, 2019 and July 4, 2019 in accordance with §16.72.020 of the SZCDC.

**K. Review Criteria:** Sherwood Zoning and Community Development Code (SZCDC): Division II: §16.12 (Residential Land Use Districts), §16.72 (Procedures for Processing Development Permits), §16.92 (Landscaping), §16.96 (On-Site Circulation), Division VI. Public Infrastructure- §16.106 (Transportation Facilities), §16.110 (Sanitary Sewers), §16.112 (Water), §16.114 (Storm), §16.116 (Fire Protection), §16.118 (Public and Private Utilities), Division VII. (Land Division), §16.120 (Subdivision), §16.128, (Land Division Design Standards), Division VIII. Environmental Resources, §16.134 (Floodplain Overlay), §16.142 (Parks, Trees, and Open Spaces), §16.144 (Wetland, Habitat and Natural Areas) and §16.156 (Energy Conservation).

## II. PUBLIC COMMENTS

Public notice was mailed, posted on the property, and posted in five locations throughout the City on June 19, 2019. Staff have received several comments from the community (Exhibits J.1 to J.4) Additional comments from the community are welcome up to the close of the public hearing. The community has identified several concerns and are summaries below.

### Traffic and safety impacts to the following roadways and intersections:

- SW Brookman Road
- Sunset / Elwert and Hwy 99W
- Hwy 99W and SW Chapman Road
- Impacts to surrounding neighborhood roadways

The City of Sherwood Engineering Department, Washington County Land Use & Transportation, and Oregon Department of Transportation Region 1 have all reviewed the proposal. Based on submitted Traffic Impact Analysis and supplemental information provided by the applicant, these agencies determined the proposal can be approved with certain conditions. The requirements and conditions are further discussed in Section 16.106 Transportation Facilities below.

Single Point of Access inadequate due to emergencies – The applicant is proposing a second access point to Brookman Road for emergencies (Map 2S1 06B and Tax Lot 200). This emergency access has been reviewed and approved by Tualatin Valley Fire & Rescue along with Washington County.

Lack of sidewalk along SW Brookman Road for kids walking to school – The proposed development has limited frontage of SW Brookman Road and the applicant is proposing to building sidewalks along its frontage on SW Brookman Road. Requiring the applicant to fully improve SW Brookman Road with sidewalks would not be proportional to their proposal. Typically, when roadways are not fully improved, school districts would utilize their school bussing transportation system to safely get the students to school and not require their students to walk on unimproved roadways.

Compatibility with the Brookman Road Concept Plan – The Brookman Road Concept Plan shows the site having zoning designations of Medium Density Residential Low and Medium Density Residential High. The applicant is proposing density and single-family dwelling units that meets the Brookman Road Concept Plan.

### III. AGENCY COMMENTS

Staff sent e-notice to affected agencies on January 22, 2019. The following is a summary of the comments received. Copies of full comments are included in the record unless otherwise noted.

**Sherwood Engineering Department:** The Sherwood Engineering Department has provided comments and conditions of approvals that are incorporated in this report and attached as **Exhibit B.1- B.3**. Comments addresses transportation, sanitary sewer, environmental, stormwater, water, and grading and erosion sediment control.

**Washington County Land Use & Transportation:** Naomi Vogel, Associate Planner, provided comments dated June 27, 2019 (**Exhibit C.1**). She stated that the Traffic Impact Analysis (TIA) and supplemental information by Kittleson & Associates was submitted in accordance with Washington County R&O 86-95, "Determining Traffic Safety Improvement". County staff reviewed the TIA and concurs with the findings/recommendations of the analysis and supplemental addenda. The application also received approval for a Design Exception to the County's 600-foot access standards. Right-of-way dedication and public improvements are required along SW Brookman. These requirements are further discussed in Section 16.106 Transportation Facilities below.

Erin Wardell, Principal Planner, from Washington County Land Use & Transportation Long Range Planning, also provided comments dated July 2, 2019 (**Exhibit C.2**) stating since this the first urban development along Brookman Road, the roadway design and right-of-way dedication requirements are important as they set the stage for the future look and feel of Brookman Road. Brookman Road is a 5-lane arterial and as development occurs, it will be important that roadway improvements are made in accordance with that designation, with robust access management.

Washington County Land Use & Transportation also reviewed the proposal for compliance with Washington County Community Development Code (CDC) Article VII. Ryan Marquardt, Transportation Planner indicated that the proposal would be exempt from review under CDC Article VII since the improvements required by ODOT would be within existing right-of-way and would be an operational improvement for median control (**Exhibit C-3**).

**Oregon Department of Transportation (ODOT):** Marah Danielson and Avi Tayar, ODOT Region 1 Planning, comments dated February 21, 2019 (**Exhibit D**) discusses the City's Metro grant to study the location of the OR 99W intersection as it relates to the Brookman Rd Concept Plan. The study will identify the preferred alternative for the location of the signalized intersection that is in the City's Transportation System Plan. Additional comments addresses mobility impacts of the proposed development and the intersection of OR 99W and Brookman Rd with proposed mitigation due to safety concerns. These comments and requirements are further discussed in Section 16.106 Transportation Facilities below.

**Tualatin Valley Fire and Rescue (TVF&R):** Tom Mooney, Deputy Fire Marshall, provided comments in a letter dated February 1, 2019 attached as **Exhibit E**. He addresses dead end roads/turnarounds and temporary emergency access road including gate and Knox padlock standards. This is further discussed in Chapter 16.116 of this report.

**Clean Water Services (CWS):** Jackie Humphries, CWS, provided comments dated February 4, 2019, that indicated a storm water connection permit authorization would be required prior to plat approval and recordation. This will be discussed and conditioned further within this report. Her comments are attached as **Exhibit F.1**. Additionally, a Service Provider Letter (CWS 18-

001504) dated June 27, 2018 was received and approved with conditions. This will be further discussed in this report. See attached **Exhibit F.2**.

**Waste Management (WM):** Dean Kampfer from Waste Management stated that WM should not have any issues servicing the units as laid out. **Exhibit G**

**Oregon Department of State Lands:** Jevra Brown, Aquatic Resource Planner, comments dated January 22, 2019, states the project is associated with approved wetland delineation WD2018-0275 and permit application 60698-RF. **Exhibit H**

Kinder Morgan Energy, METRO, NW Natural Gas and Portland General Electric did not respond or provided no comments to the request for agency comments by the date of this report.

#### **IV. SUBDIVISION REVIEW REQUIRED FINDINGS (16.120 Subdivisions and 16.128 Land Division Design Standards)**

##### **16.120.040- Approval Criteria: Preliminary Plat**

**No preliminary plat shall be approved unless:**

- A. Streets and roads conform to plats approved for adjoining properties as to widths, alignments, grades, and other standards, unless the City determines that the public interest is served by modifying streets or road patterns.**

**FINDING:** The proposed subdivision abuts one street, SW Brookman Road to the south. With the exception of SW Brookman Road, there are no existing street and roads adjoining the site. The preliminary plans show that streets and roads will conform to the street standards as required by the City and County. Therefore, this criterion is met.

- B. Streets and roads held for private use are clearly indicated on the plat and all reservations or restrictions relating to such private roads and streets are set forth thereon.**

**FINDING:** This criterion is not applicable, as the applicant has not proposed any private roads or streets.

- C. The plat complies with applicable zoning district standards and design standards in Division II, and all provisions of Divisions IV, VI, VIII and IX. The subdivision complies with Chapter 16.128 (Land Division Design Standards).**

**FINDING:** Where applicable, this standard is met and discussed in Divisions IV (Planning Procedures), VI (Public Infrastructure) and VIII (Environmental Resources) of this report. Section IX (Historic Resources) is not addressed, as it is not applicable.

- D. Adequate water, sanitary sewer, and other public facilities exist to support the use of land proposed in the plat.**

**FINDING:** As discussed in Division VI (Public Infrastructure) of this report there are adequate services to support the proposed subdivision. The applicant's exhibits demonstrate that adequate water, sanitary sewer, and other public facilities will be



installed to support the site; and that the proposed public improvements will adequately serve each proposed lot. This standard is met.

**E. Development of additional, contiguous property under the same ownership can be accomplished in accordance with this Code.**

**FINDING:** One of the property owners (George W Boyd Rev Living Trust and Carleen H. Brewer Rev Living Trust) also owns the southern segment of Map and Tax Lot 3S106B000200. A shadow plat, Sheet P21 of Exhibit A.1, shows potential street connections and new lot configurations. Therefore, development of the contiguous property can be accomplished. This criterion is met.

**F. Adjoining land can either be developed independently or is provided access that will allow development in accordance with this Code.**

**FINDING:** Portland and Western Railroad borders the site to the north, developed single-family lots to the northeast, and SW Brookman Road to the south. Roadway access will be provided to the parcels to the east once proposed public improvements are constructed. Future roadway connection is not provided to the west due to existing natural resource. Where feasibly available, future access will be provided, therefore this criterion is met.

**G. Tree and woodland inventories have been submitted and approved as per Section 16.142.060.**

**FINDING:** The applicant provided a Preliminary Tree Preservation and Removal Plan Sheet P09 of Exhibit A.1 and Tree Inventory (Exhibit K of application materials) that provides an inventory of the existing trees on site. Based on the analysis identified in Section 16.142 Landscaping, these standards are met.

**H. The plat clearly shows the proposed lot numbers, setbacks, dedications and easements.**

**FINDING:** Proposed lot numbers, setbacks, dimensions, dedications, and easements are shown on Preliminary Plans Sheets P07 and P07B in Exhibit A.1 and A.2. This standard is met.

**I. A minimum of five percent (5%) open space has been provided per § 16.44.B.8 (Townhome- Standards) or §16.142.020 (Parks, Open Spaces and Trees-Single-Family Residential Subdivisions), if applicable.**

**FINDING:** Based on the net area of the site, the required 5% open space is 51,973 square feet. The preliminary plans shows Open Space Tracts "B", "F", "G" and "H" as 125,017 square feet of Open Space tracts. Therefore, this standard is met

**Chapter 16.128 - LAND DIVISION DESIGN STANDARDS**

**16.128.010 - Blocks**

**A. Connectivity**

**1. Block Size**

**The length, width, and shape of blocks shall be designed to provide adequate building sites for the uses proposed, and for convenient access, circulation, traffic control and safety.**

## **2. Block Length**

**Block length standards shall be in accordance with Section 16.108.040. Generally, blocks shall not exceed five-hundred thirty (530) feet in length, except blocks adjacent to principal arterial, which shall not exceed one thousand eight hundred (1,800) feet. The extension of streets and the formation of blocks shall conform to the Local Street Network map contained in the Transportation System Plan.**

**3. Pedestrian and Bicycle Connectivity. Paved bike and pedestrian accessways shall be provided on public easements or right-of-way consistent with Figure 7.401.**

**FINDING:** The preliminary plans shows blocks that has appropriate shape and size for residential use and meet the required standards. Improvements of public streets and rights-of-way will provide for convenient access and connectivity for vehicle, pedestrian and bicycle traffic.

**B. Utilities Easements for sewers, drainage, water mains, electric lines, or other utilities shall be dedicated or provided for by deed. Easements shall be a minimum of ten (10) feet in width and centered on rear or side lot lines; except for tie-back easements, which shall be six (6) feet wide by twenty (20) feet long on side lot lines at the change of direction.**

**FINDING:** The required Public Utility Easements and Sanitary Sewer Easements are reflected on the preliminary plans, Sheets P07 and P07B of Exhibit A.1 and A.2. Installation of the utilities necessary to serve the lots will occur with construction of the subdivision as shown on the Preliminary Composite Utility Plan, Sheet P20 of Exhibit A.1. This criterion is met.

## **C. Drainages**

**Where a subdivision is traversed by a watercourse, drainage way, channel or street, drainage easements or rights-of-way shall be provided conforming substantially to the alignment and size of the drainage.**

**FINDING:** The required easements are shown on the preliminary plans. This criterion is met.

## **16.128.020 - Pedestrian and Bicycle Ways**

**Pedestrian or bicycle ways may be required to connect cul-de-sacs, divide through an unusually long or oddly shaped block, or to otherwise provide adequate circulation.**

**FINDING:** Pedestrian and bicycle ways are provided within the proposed subdivision. The proposal includes a 15-foot public pedestrian easement for pedestrian and bicycle accessibility throughout the subdivision including the proposed cul-de-sac. This criterion is met.

## **16.128.030 - Lots**

### **A. Size and Shape**

**Lot size, width, shape, and orientation shall be appropriate for the location and topography of the subdivision or partition, and shall comply with applicable zoning district requirements, with the following exception:**

**1. Lots in areas not served by public sewer or water supply shall conform to any special County Health Department standards.**

**FINDING:** The Preliminary Subdivision Plat, Sheets P07 and P07B of Exhibit A.1 and A.2, shows 145 lots that will comply with the applicable requirements. All lots can be served by public sewer and water facilities along their street frontages. This criterion is met.

**B. Access**

**All lots in a subdivision shall abut a public street, except as allowed for infill development under Chapter 16.68.**

**C. Double Frontage**

**Double frontage and reversed frontage lots are prohibited except where essential to provide separation of residential development from railroads, traffic arteries, adjacent nonresidential uses, or to overcome specific topographical or orientation problems. A five (5) foot wide or greater easement for planting and screening may be required.**

**D. Side Lot Lines Side lot lines shall, as far as practicable, run at right angles to the street upon which the lots face, except that on curved streets side lot lines shall be radial to the curve of the street.**

**FINDING:** All 145 lots in the subdivision abut a public street and double frontage lots are not proposed. The preliminary plat shows that side lot lines run at right angles to the abutting street frontage as far as practicable. Therefore, these criteria are met.

**E. Grading**

**Grading of building sites shall conform to the following standards, except when topography of physical conditions warrants special exceptions:**

- 1. Cut slopes shall not exceed one (1) and one-half (1 1/2) feet horizontally to one (1) foot vertically.**
- 2. Fill slopes shall not exceed two (2) feet horizontally to one (1) foot vertically.**

**STAFF ANALYSIS:** The application packet includes a preliminary grading and erosion and sediment control (ESC) plan, Sheet P13 of Exhibit A.1. Final engineering ESC design plans will need to adhere to all Clean Water Services (CWS) engineering design standards for presentation of ESC facilities utilized on the project.

Since the proposed project is greater than five (5) acres of disturbed surface area, the applicant will need to submit for and obtain an NPDES 1200C permit from CWS. The proposed project has obtained a Service Provider Letter (SPL) from CWS (File No. 18-001504). Final ESC plans will need to comply with all the requirements and conditions of the issued SPL.

The site is located adjacent to a wetland and stream corridor. Prior to commencing any on-site clearing or grading activity, City staff will take in-stream water samples from the nearest upstream and downstream point of the site. The percent turbidity shall be recorded and used as an additional tool to help in determination of whether on-site erosion and sediment control facilities are functioning correctly, or if illicit sediment discharge from the site is occurring during site construction. This information will be provided to the site construction manager at the project's pre-construction meeting with the City.

**FINDING:** These standards have not been met, but can be met as conditioned below.

**RECOMMENDED CONDITION:** (A13) The applicant shall adhere to all the requirements and conditions listed in the Service Provider Letter issued by CWS (File No. 18-001504).

**RECOMMENDED CONDITION:** (E1) Prior to Final Approval of Engineering Plans, the ESC plan shall adhere to all CWS engineering design standards for presentation of all ESC facilities utilized on the project.

**RECOMMENDED CONDITION:** (C1) Prior to Issuance of an Engineering Compliance Agreement, the applicant shall obtain and submit the NPDES 1200C permit issued from CWS for the proposed project, to the City engineering department.

**RECOMMENDED CONDITION:** (E2) Prior to Final Approval of Engineering Plans, applicant shall obtain an NPDES 1200C Permit from CWS and submit it to the Engineering Department. Approved Erosion and Sediment Control construction plans shall show and conform with conditions delineated in the NPDES 1200C permit.

**RECOMMENDED CONDITION:** (H1) Prior to Grant of Occupancy, final acceptance of constructed public improvements shall be obtained from the Engineering Department. This acceptance includes complying with all requirements and conditions of the NPDES 1200C Permit.

## V. APPLICABLE CODE PROVISIONS

### A. DIVISION II– Land Use and Development

#### Chapter 16.21 RESIDENTIAL LAND USE DISTRICTS

##### 16.12.10 Purpose and Density Requirements

##### C. Medium Density Residential Low (MDRL)

The MDRL zoning district provides for single-family and two family housing, manufactured housing, multi-family housing and other related uses with a density of 5.6 to 8 dwelling units per acre.

##### D. Medium Density Residential High (MDRH)

The MDRH zoning district provides for a variety of medium density housing, including single-family, two-family housing, manufactured housing multi-family housing, and other related uses with a density of 5.5 to 11 dwelling units per acre. Minor land partitions are exempt from the minimum density requirement.

**STAFF ANALYSIS:** The subject site has two zoning designations, Medium Density Residential Low (MDRL) and Medium Density Residential High (MDRH). The planned subdivision includes 145 lots on a net development site area of ±23.86 acres resulting in a net residential density of ±6.08 or rounded to six (6) dwelling units per acre. This planned density falls within the dwelling units per acre minimum and maximum within the MDRL and MDRH zoning districts.

**FINDING:** This standard is met.

**16.12.020 Allowed Residential Land Uses**

**Residential Land Uses**

**A. The table below identifies the land uses that are allowed in the Residential Districts.**

Uses	VLDR	LDR	MDRL	MDRH	HDR
<b>Residential</b>					
Single-Family Attached or Detached Dwellings	P	P	P	P	P

**STAFF ANALYSIS:** The applicant is proposing a 145-lot subdivision for detached single-family dwellings, which is a permitted use in the MDRL and MDRH zones.

**FINDING:** This standard is met.

**16.12.30 Residential Land Use Development Standards**

**A. Generally**

No lot area, setback, yard, landscaped area, open space, off-street parking or loading area, or other site dimension or requirement, existing on, or after, the effective date of this Code shall be reduced below the minimum required by this Code. Nor shall the conveyance of any portion of a lot, for other than a public use or right-of-way, leave a lot or structure on the remainder of said lot with less than minimum Code dimensions, area, setbacks or other requirements, except as permitted by Chapter 16.84. (Variances and Adjustments)

**B. Development Standards**

Except as modified under Chapter 16.68 (Infill Development), Section 16.144.030 (Wetland, Habitat and Natural Areas), Chapter 16.44 (Townhomes), or as otherwise provided, required minimum lot areas, dimensions and setbacks shall be provided in the following table.

**C. Development Standards per Residential Zone**

Development Standards by Residential District	MDRL & MDRH
Minimum Lot area (in square feet) Single-Family Detached	5,000
Minimum Lot width at front property line	25 feet
Minimum Lot width at building line; Single-Family	50 feet
Lot Depth	80 feet
Maximum Height (in feet)	35 or 2.5 stories
Front yard	14 feet
Face of garage	20 feet
Interior side yard; Single-Family Detached	5 feet
Corner lot side yard; Single Family or Two Family:	15 feet
Rear yard:	20 feet

**STAFF ANALYSIS:** As shown on Sheets P07 and P07B, Preliminary Subdivision Plat of Exhibit A.1 and A.2, each lot will meet the 5,000 square foot minimum lot size requirements. As planned each of the lots meet the 25-foot wide minimum street lot width (street frontage) at front property line, and the 50-foot width at the building line, and the 80-foot lot depth requirements. As shown, the plan demonstrates that future homes can meet the minimum setback requirements, but height is not shown.

**FINDING:** These standards can be met as conditioned below.

**RECOMMENDED CONDITION:** (F1) Prior to issuance of building permits, submit plot plans and building plans showing that the structures meet minimum front, face of garage, rear, side, corner side yard setback requirements, height and yard requirements.

#### **16.12.040 Community Design**

**For standards relating to off-street parking and loading, energy conservation, historic resources, environmental resources, landscaping, access and egress, signs, parks and open space, on-site storage, and site design, see Divisions V, VIII, IX.**

**FINDING:** The application does meet or can meet all applicable community design standards as conditioned in this staff report.

#### **16.12.050 Flood Plain**

**Except as otherwise provided, Section 16.134.020 shall apply.**

**FINDING:** The site does not fall within any mapped floodplain, according to the City of Sherwood FEMA Map and Metro Maps. Therefore, Section 16.134.020 is not applicable to this application.

### **CHAPTER 16.58 CLEAR VISION AND FENCE STANDARDS**

#### **16.58.010 Clear Vision Areas**

- A. A clear vision area shall be maintained on the corners of all property at the intersection of two (2) streets, intersection of a street with a railroad, or intersection of a street with an alley or private driveway.**
- B. A clear vision area shall consist of a triangular area, two (2) sides of which are lot lines measured from the corner intersection of the street lot lines for a distance specified in this regulation; or, where the lot lines have rounded corners, the lot lines extended in a straight line to a point of intersection, and so measured, and the third side of which is a line across the corner of the lot joining the non-intersecting ends of the other two (2) sides.**
- C. A clear vision area shall contain no planting, sight obscuring fence, wall, structure, or temporary or permanent obstruction exceeding two and one-half (2 1/2) feet in height, measured from the top of the curb, or where no curb exists, from the established street center line grade, except that trees exceeding this height may be located in this area, provided all branches and foliage are removed to the height of seven (7) feet above the ground on the sidewalk side and ten (10) feet on the street side.  
The following requirements shall govern clear vision areas:
  - 1. In all zones, the minimum distance shall be twenty (20) feet.**
  - 2. In all zones, the minimum distance from corner curb to any driveway shall be twenty-five (25) feet.****

**3. Where no setbacks are required, buildings may be constructed within the clear vision area.**

**STAFF ANALYSIS:** The applicant did not identify clear vision triangles on all corner lots within the development. A clear vision area would be required for all corner lot. The clear vision area will be verified at the time of final platting and plot plan review, prior to issuance of building permits.

**FINDING:** As proposed, this standard is not met, but can be met as conditioned below.

**RECOMMENDED CONDITION:** (B2) Prior Final Plat approval, submit a revised tree plan demonstrating compliance with the Clear Vision requirements of Section.16.58 of the Sherwood Zoning and Community Development Code.

**RECOMMENDED CONDITION:** (B3) Prior to Final Plat approval, show vision clearance easements on all corner lots. Vision Clearance Easements shall be to the City of Sherwood and conform with Section 16.58.010.

**CHAPTER 16.60 YARD REQUIREMENTS**

**16.60.010 Through Lots**

**On a through lot the front yard requirements of the zone in which such a lot is located shall apply to the street frontage where the lot receives vehicle access, except where access is from an alley, the front yard requirements shall apply to the street opposite the alley.**

**STAFF ANALYSIS:** The applicant has not proposed any through lots and therefore this criterion is not applicable.

**16.60.020 Corner Lots**

**On a corner lot, or a reversed corner lot of a block oblong in shape, the short street side may be used as the front of the lot provided:**

- A. The front yard setback shall not be less than twenty-five (25) feet; except where otherwise allowed by the applicable zoning district and subject to vision clearance requirements.**
- B. The side yard requirements on the long street side shall conform to the front yard requirement of the zone in which the building is located.**

**STAFF ANALYSIS:** There are several corner lots within the proposed 145-lot subdivision. The MDRL and MDRH zones requires 14-foot front yard and 15-foot street side yard setbacks on corner lots. The setbacks of the MDRL and MDRH zones are addressed and conditioned above, in Section 16.12.30.C. The applicant's plan demonstrates that the front and street side yard setbacks required by MDRL and MDRH zones in Section 16.12.30 can be met. Upon application and approval of building permits, all setbacks will be reviewed to meet the development setback standards of the MDRL and MDRH zones through conditioned F1.

**16.60.030 Yards**

- A. Except for landscaping, every part of a required yard (also referred to as minimum setback) shall be open and unobstructed from its lowest point to the sky, except that architectural features such as awnings, fire escapes, open stairways, chimneys, or accessory structures**

permitted in accordance with Chapter 16.50 (Accessory Structures) may be permitted when so placed as not to obstruct light and ventilation.

- B. Where a side or rear yard is not required, and a primary structure is not erected directly on the property line, a primary structure must be set back at least three (3) feet.**

**STAFF ANALYSIS:** No structures are proposed at this time. Compliance with yard requirements will be verified prior to issuance of building permits, as conditioned above.

**FINDING:** This criterion can be met through condition F1.

#### **16.60.040 Lot Sizes and Dimensions**

**A. If a lot or parcel, or the aggregate of contiguous lots or parcels, recorded or platted prior to the effective date of this Code, has an area or dimension which does not meet the requirements of this Code, the lot or aggregate lots may be put to a use permitted outright, subject to the other requirements of the zone in which the property is located.**

**B. Exceptions**

- 1. Residential uses are limited to a single-family dwelling, or to the number of dwelling units consistent with the density requirements of the zone. However, a dwelling cannot be built on a lot with less area than thirty-two hundred (3,200) square feet, except as provided in Chapter 16.68.**
- 2. Yard requirements of the underlying zone may be modified for infill developments as provided in Chapter 16.68 (Infill Development).**

**FINDING:** As proposed, all lots meet the minimum size and dimension requirements of the MDRL and MDRH zones. These standards are met.

### **B. DIVISION V: COMMUNITY DESIGN**

#### **CHAPTER 16.92 LANDSCAPING**

##### **16.92.010 Landscaping Plan Required**

**All proposed developments for which a site plan is required pursuant to Section 16.90.020 shall submit a landscaping plan that meets the standards of this Chapter. All areas not occupied by structures, paved roadways, walkways, or patios shall be landscaped or maintained according to an approved site plan.**

**STAFF ANALYSIS:** The application is for a subdivision, which does not require a site plan review pursuant to Section 16.90.20. The applicant has submitted a Preliminary Landscape, Street Tree and Open Space plan, Sheet P22 of Exhibit A.1, which shows proposed landscaping and street trees. All individual lots will require landscaping prior to the granting of occupancy.

##### **16.92.040 Installation and Maintenance**

**1. Deferral of Improvements**

**Landscaping shall be installed prior to issuance of occupancy permits, unless security equal to 125% of the cost of the landscaping is filed with the City. "Security" may consist of a performance bond payable to the City, cash, certified check, or other assurance of**



completion approved by the City. If the installation of the landscaping is not completed within six (6) months, the security may be used by the City to complete the installation.

## 2. Maintenance of Landscaped Areas

All landscaping shall be maintained in a manner consistent with the intent of the approved landscaping plan. Failure to maintain landscaped areas shall result in the revocation of applicable occupancy permits and business licenses

**FINDING:** The applicant submitted a Preliminary Landscape, Street Trees and Open Space plan that identifies proposed street trees. This is further described and discussed in detail below in this staff report.

**RECOMMENDED CONDITION:** (H2) Prior to Grant of Occupancy, the individual lot shall be landscaped and all required street trees shall be planted in accordance to city standards.

## **CHAPTER 16.94 OFF-STREET PARKING AND LOADING**

### 16.94.010 Generally

#### 1. Off-Street Parking Required

No building permit shall be issued until plans are approved providing for off-street parking and loading space as required by this Code. Any change in uses or structures that reduces the current off-street parking and loading spaces provided on site, or that increases off-street parking or loading requirements shall be unlawful and a violation of this Code, unless additional off-street parking or loading areas are provided in accordance with Section 16.94.020, or unless a variance from the minimum or maximum parking standards is approved in accordance with Chapter 16.84 Variances.

**STAFF ANALYSIS:** The applicant proposes adequate parking spaces for the residential uses through attached garages and driveways.

**FINDING:** This standard applies citywide, except in the Old Town Smockville area, and will be verified prior to the issuance of building permits and is conditioned below.

### 16.94.020 Off Street Parking

#### A. Generally

Where square feet are specified, the area measured shall be the gross building floor area primary to the functioning of the proposed use. Where employees are specified, persons counted shall be those working on the premises, including proprietors, during the largest shift at peak season. Fractional space requirements shall be counted as a whole space. The Review Authority may determine alternate off - street parking and loading requirements for a use not specifically listed in this Section based upon the requirements of comparable uses.

**FINDING:** Section 16.94.020 indicates single-family dwellings required one off-street parking space per dwelling unit. This standard is typically met with the installation of garages and driveways. Compliance is confirmed during plot plan review for individual building lots. This standard is not met but can be as conditioned.

**RECOMMENDED CONDITION:** (F2) Prior to the issuance of building permits, each lot shall provide for one off-street parking space.

## **CHAPTER 16.96 ON-SITE CIRCULATION**

### **16.96.010 - On-Site Pedestrian and Bicycle Circulation**

#### **A. Purpose**

On-site facilities shall be provided that accommodate safe and convenient pedestrian access within new subdivisions, multi-family developments, planned unit developments, shopping centers and commercial districts, and connecting to adjacent residential areas and neighborhood activity centers within one-half mile of the development. Neighborhood activity centers include but are not limited to existing or planned schools, parks, shopping areas, transit stops or employment centers. All new development, (except single-family detached housing), shall provide a continuous system of private pathways/sidewalks.

#### **B. Maintenance**

No building permit or other City permit shall be issued until plans for ingress, egress and circulation have been approved by the City. Any change increasing any ingress, egress or circulation requirements, shall be a violation of this Code unless additional facilities are provided in accordance with this Chapter.

**STAFF ANALYSIS:** The preliminary street plan, Sheet P14 and P14B of Exhibit A.1 and A.2, shows on-site street improvements throughout the subdivision that includes six-foot wide sidewalks and 15-foot pedestrian paths. The proposed improvements will provide for pedestrian and bicycle connectivity and circulation.

**FINDING:** As discussed above, the proposed subdivision provides for adequate and convenient pedestrian and bicycle access. These standards are met.

#### **C. Joint Access**

Two (2) or more uses, structures, or parcels of land may utilize the same ingress and egress when the combined ingress and egress of all uses, structures, or parcels of land satisfied the other requirements of this Code, provided that satisfactory legal evidence is presented to the City in the form of deeds, easements, leases, or contracts to clearly establish the joint use.

**STAFF ANALYSIS:** This proposal does not involve joint access for two or more structures utilizing the same ingress and egress, therefore this criterion is not applicable.

#### **D. Connection to Streets**

- 1. Except for joint access per this Section, all ingress and egress to a use or parcel shall connect directly to a public street, excepting alleyways with paved sidewalk.**
- 2. Required private sidewalks shall extend from the ground floor entrances or the ground floor landing of stairs, ramps or elevators to the public sidewalk or curb of the public street which provides required ingress and egress.**

**FINDING:** Individual ingress and egress connections for individual lots will be through driveway approaches connecting to public streets. The proposed subdivision does not include private sidewalks. This criterion is met.

#### **E. Maintenance of Required Improvements**

Required ingress, egress and circulation improvements shall be kept clean and in good repair.

**STAFF ANALYSIS:** The proposed new streets within the subdivision will be dedicated to the City of Sherwood as public streets - further discussed in Section 16.106 Transportation Facilities. The individual owners will maintain their tax lot ingress and egress access points. The Home Owners Association will maintain the open space tracts (Tract B, C, D, E, F, G, and H).

**FINDING:** This criterion can be met as conditioned below B7 in Section 16.142.

**F. Access to Major Roadways**

**Points of ingress or egress to and from Highway 99W and arterials designated on the Transportation Plan Map, attached as Appendix C of the Community Development Plan, Part II, shall be limited as follows:**

1. **Single and two-family uses and manufactured homes on individual residential lots developed after the effective date of this Code shall not be granted permanent driveway ingress or egress from Highway 99W and arterial roadways. If alternative public access is not available at the time of development, provisions shall be made for temporary access which shall be discontinued upon the availability of alternative access.**
2. **Other private ingress or egress from Highway 99W and arterial roadways shall be minimized. Where alternatives to Highway 99W or arterials exist or are proposed, any new or altered uses developed after the effective date of this Code shall be required to use the alternative ingress and egress.**
3. **All site plans for new development submitted to the City for approval after the effective date of this Code shall show ingress and egress from existing or planned local or collector streets, consistent with the Transportation Plan Map and Section VI of the Community Development Plan.**

**FINDING:** SW Brookman Road is classified as an Arterial on the City Transportation System Plan. Single-family uses cannot have permanent driveway ingress or egress from SW Brookman Road. The proposal includes ingress and egress to the single-family lots from planned local streets consistent with City standards. These criteria are met.

**G. Service Drives**

**Service drives shall be provided pursuant to Section 16.94.030.**

**STAFF ANALYSIS:** The subject site does not include service drives; therefore, this criterion is not applicable.

**16.96.020 Minimum Residential standards**

**Minimum standards for private, on-site circulation improvements in residential developments:**

**A. Driveways**

1. **Single-Family: One (1) driveway improved with hard surface pavement with a minimum width of ten (10) feet, not to exceed a grade of 14%. Permeable surfaces and planting strips between driveway ramps are encouraged in order to reduce stormwater runoff.**
2. **Two-Family: One (1) shared driveway improved with hard surface pavement with a minimum width of twenty (20) feet; or two (2) driveways improved with hard surface pavement with a minimum width of ten (10) feet each. Permeable surfaces and planting strips between driveway ramps are encouraged in order to reduce stormwater runoff.**
3. **Multi-Family: Improved hard surface driveways are required as follows.....**

**STAFF ANALYSIS:** Each lot within the proposed subdivision is planned to have a single designated driveway. The application does not include two family uses, shared driveways, or multi-family units. This standard can be met as conditioned below.

**RECOMMENDED CONDITION:** (F3) Prior to the issuance of building permits the appropriate permit applications and details regarding the design of each driveway will be submitted to the City of Sherwood for review and approval.

**B. Sidewalks, Pathways and Curbs**

1. **Single, Two-Family, and Manufactured Home on Individual Residential Lot: No on-site sidewalks and curbs are required when not part of a proposed partition or subdivision.**
2. **Multi-family:.....**

**STAFF ANALYSIS:** As shown on Sheets P14 and P14B, Preliminary Street Plan, of Exhibit A.1 and A.2, curbs and sidewalks are planned to be installed along the street frontage of each lot in the subdivision.

**FINDING:** This standard is met.

**16.98.020 Solid Waste and Recycling Storage**

**All uses shall provide solid waste and recycling storage receptacles which are adequately sized to accommodate all solid waste generated on site. All solid waste and recycling storage areas and receptacles shall be located out of public view. Solid waste and recycling receptacles for multi-family, commercial, industrial and institutional uses shall be screened by six (6) foot high sight-obscuring fence or masonry wall and shall be easily accessible to collection vehicles.**

**FINDING:** The proposal is for a residential subdivision. Dean Kampfer from Waste Management, email dated February 21, 2019, indicated that they are able to service the proposed development as laid out (Exhibit G). This standard is met.

**C. DIVISION VI. PUBLIC INFRASTRUCTURE**

**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.**

Type of Street	Right of Way Width	Number of Lanes	Minimum Lane Width	On Street Parking Width	Bike Lane Width	Side walk Width	Landscape Strip (exclusive of Curb)	Median Width
Arterial	60-102'	2-5	12'	Limited	6 feet	6-8'	5'	14' if required
Neighborhood (>1,000 vpd)	64'	2	18'	8'	None	8'	5' with 1' buffer	None
Local	52"	2	14'	8' on one side only	None	6'	5' with 1' buffer	None

**STAFF ANALYSIS:** SW Brookman Road is a Washington County Roadway and subject to their jurisdictional control. The required improvements to SW Brookman Road are designed to County standards. The new local streets are designed according to City standards.

**B. Street Naming**

1. All streets created by subdivision or partition will be named prior to submission of the final plat.
2. Any street created by a public dedication shall be named prior to or upon acceptance of the deed of dedication.
3. An action to name an unnamed street in the City may be initiated by the Council or by a person filing a petition as described in this Section.
4. All streets named shall conform to the general requirements as outlined in this Section.
5. At the request of the owner(s), the City may approve a private street name and address. Private streets are subject to the same street name standards as are public streets. All private street signs will be provided at the owner(s) expense.

**C. Street Name Standards**

1. All streets named or renamed shall comply with the following criteria:
  - a. Major streets and highways shall maintain a common name or number for the entire alignment.
  - b. Whenever practicable, names as specified in this Section shall be utilized or retained.
  - c. Hyphenated or exceptionally long names shall be avoided.
  - d. Similar names such as Farview and Fairview or Salzman and Saltzman shall be avoided.
  - e. Consideration shall be given to the continuation of the name of a street in another jurisdiction when it is extended into the City.
2. The following classifications (suffixes) shall be utilized in the assignment of all street names:
  - a. Boulevards: North/south arterials providing through traffic movement across the community.
  - b. Roads: East/west arterials providing through traffic movement across the community.
  - c. Avenues: Continuous, north/south collectors or extensions thereof.
  - d. Streets: Continuous, east-west collectors or extensions thereof.

- e. Drives: Curvilinear collectors (less than 180 degrees) at least 1,000 feet in length or more.
  - f. Lanes: Short east/west local streets under 1,000 feet in length.
  - g. Terraces: short north/south local streets under 1,000 feet in length.
  - h. Court: All east/west cul-de-sacs.
  - i. Place: All north/south cul-de-sacs.
  - j. Ways: All looped local streets (exceeding 180 degrees).
  - k. Parkway: A broad landscaped collector or arterial.
3. Except as provided for by this section, no street shall be given a name that is the same as, similar to, or pronounced the same as any other street in the City unless that street is an extension of an already-named street.
4. All proposed street names shall be approved, prior to use, by the City. D. Preferred Street Names
- D. Whenever practicable, historical names will be considered in the naming or renaming of public roads. Historical factors to be considered shall include, but not be limited to the following:
- 1. Original holders of Donation Land Claims in Sherwood.
  - 2. Early homesteaders or settlers of Sherwood.
  - 3. Heirs of original settlers or long-time (50 or more years) residents of Sherwood.
  - 4. Explorers of or having to do with Sherwood.
  - 5. Indian tribes of Washington County.
  - 6. Early leaders and pioneers of eminence.
  - 7. Names related to Sherwood's flora and fauna. 8. Names associated with the Robin Hood legend.

**STAFF ANALYSIS:** The proposed street names are included on the Preliminary Plat, Sheets P07 and P07B of Exhibit A.1 and A.2. The Street names are in accordance with the above street naming standards.

**FINDING:** The street naming criteria is met.

## **CHAPTER 16.106 TRANSPORTATION FACILITIES**

### **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.

**STAFF ANALYSIS:** City of Sherwood Engineering Department reviewed the proposal and submitted comments that are incorporated within the chapter (Exhibit B.1). The proposed subdivision has frontage on SW Brookman Road, a County right-of-way, and is approximately 5,400 feet east of the intersection of SW Brookman Road and Hwy 99W. The application packet includes an interior street layout plan and SW Brookman Road frontage improvement plan.

The subdivision submittal provides a single public access road offset 100-feet from the existing SW Oberst Road intersection (a County Road) as shown in Exhibit A.2. Southwest Brookman Road frontage improvements extend approximately 360 feet along Brookman Road. A secondary limited improvement road is shown crossing the adjacent tax lot (3S106B000200) to be used for emergency access.

The internal street layout has provided for extension of internal streets to adjacent undeveloped properties (south, west and east of the subdivision). The proposed project does not provide for extension of internal streets to properties at the northwest corner of the development. The stated rationale is that a wetland exists to the west and would need to be crossed by some type of bridge, which is not proportional to the cost to construct such a structure.

#### SW Brookman Road

Frontage improvements along SW Brookman Road include the proportional dedication of land for right-of-way, and standard street improvements appropriate for an arterial road classification.

Realignment of the existing SW Brookman Road/Hwy 99W intersection was proposed as part of the original Brookman Area Concept Plan. The realigned intersection location was shown as being approximately 1,450 feet north of the current intersection location. Currently the Brookman Area Concept Plan is being updated to confirm the realignment recommendation and to present a concept level alignment which will be used to update the City's TSP.

Given the current transportation planning efforts for SW Brookman Road, ODOT, WACO and the City, acknowledge that conditioning full improvements to the intersection with Hwy 99W would not be in the best interest of ODOT, WACO, the City or the applicant. If build-out intersection improvements were required to the SW Brookman Road/Hwy 99W, it is viewed that a fully signalized highway intersection would possibly be required by ODOT. The cost of this level of improvement would probably not be proportional to the impacts that the development would create.

#### Site Development Access onto SW Brookman Drive

The initial submitted site street development plan included standard 52' ROW for residential streets, and a 60' ROW for the site main access road (SW Oberst Road) to SW Brookman Road. During the preliminary land use design phase, it was found that a significant tree located on adjacent property created a sight distance issue that precluded the direct alignment of SW Oberst Road (north and south segments). The applicant and the adjacent property owner could not come to a reasonable agreement to have the tree removed, and WACO was not willing to issue a sight distance design exemption as the conditions were a major safety concern.

In response to the WACO decision, the applicant revised the access location and submitted a design variation request which included an off-set intersection of 69-feet. This offset distance was significantly less than the City's MC allowance of 100-feet. This offset distance also created a left-turn turning movement conflict from each Oberst Road onto SW Brookman Road. The City reviewed the request and technical data and concluded that the existing and proposed conditions would not meet sight distance requirements and created a safety condition. The City issued a denial of the design variation request (Exhibit B.3).

In response to the City decision, the applicant revised the access location which met the MC requirements, and also satisfied the previously identified left-turn turning movement safety issues. The proposed access road is now the extension of SW White Oak Terrace onto SW Brookman Road (Exhibit A.2).

### SW Trillium Lane

SW Trillium Lane is designed as a  $\frac{3}{4}$ -width street section, with a retaining wall and significant grade change to the existing grade of the adjacent property to the south (max height 7'). This height difference makes it infeasible and impracticable for a full width street section to be built by the adjacent development with a reasonable expectation of connectivity or minimal impact to any proposed lots.

For SW Trillium Lane to be built as a  $\frac{3}{4}$  width street section such that future development widening is reasonably feasible, the design of the street must be adjusted vertically so that the differential height to the existing grade south of the development is less than 2-feet (cut or fill).

Clear vision areas must be shown on the plans and recorded as easements on the plat. Clear vision easement areas shall conform to Section 16.58.010. This requirement is conditioned under B3.

Street lighting shall conform with City standards. All internal streets to the subdivision shall have Westbrooke street lights, with Cobrahead street lighting along SW Brookman Road right-of-way. A photometric analysis report shall be included with the engineering design submittal for review and approval by City engineering.

**FINDINGS:** This criterion is not met as discussed above, but can be satisfied as conditioned below.

**RECOMMENDED CONDITION:** (E7) Prior to Final Approval of Engineering Plans, the street lighting design shall include a photometric analysis report for review and approval by City engineering. Lighting shall be Westbrooke fixtures on all internal streets to the subdivision, with Cobrahead fixtures along the SW Brookman Road right-of-way.

**RECOMMENDED CONDITION:** (E8) Prior to Final Approval of Engineering Plans, the design of the south right-of-way line of the  $\frac{3}{4}$  street section for SW Trillium Lane vertical alignment shall be such that the differential height (cut or fill) to existing grade south of the right-of-way line is not more than 2-feet.

**RECOMMENDED CONDITION:** (E9) Prior to Final Approval of Engineering Plans, frontage improvements along the SW Brookman Road right-of-way, shall extend completely from the west property line to the east property line of the development frontage.

**RECOMMENDED CONDITION:** (E10) Prior to Final Approval of Engineering Plans, the proposed development shall record a 15-foot wide visual corridor easement paralleling and north of the right-of-way dedication occurring along SW Brookman Road.

**RECOMMENDED CONDITION:** (E11) Prior to Final Approval of Engineering Plans, the applicant shall submit a separate design variation request form for each non-conforming public infrastructure design element, to the City Engineer for review and approval.

**City Engineer's Comments-** Discussion with City Transportation Engineering (DKS Associates) requesting feedback on any potential safety concerns for SW Brookman Road. Two potential safety concerns were identified are; 1) narrow roadway width, and 2) edge drop-off conditions. SW Brookman Road generally has a narrow paved width section (18 to 20 feet), much narrower than what is typically found on City residential streets. The drop-off edge condition is most concerning in that driver reaction to right side tires falling off the road, result in overcorrection, then driving off the left side of the road. The narrow road pavement section width does not allow for much maneuvering room. This is a physical condition of the road that



the City identifies as a potential safety issue, and that the City does not have the funds to correct for in the near future, and that the City cannot condition the developer to correct for as the cost of the needed improvements are not proportional to the impacts generated by the development. It is recommended that at a minimum, pavement edgelines/foglines be re-established along SW Brookman Road prior to Grant of Occupancy.

City Transportation Engineer's Comments (based on February 5, 2019 TIA Analysis):

- Intersection vehicle queuing analysis - This was added in Appendix E, but there are two issues. 1) The high-level method may not be appropriate for some locations (especially the congested ones), and 2) Notwithstanding item #1, the narrative describes locations that are deficient but makes no findings about what should be done or if mitigation is required.
- Proportionate share - The methodology in Table 7 calculates the proportionate share based on an average, while the notes indicate that the average would only be used if considering two periods. The location is only deficient during the AM, therefore the AM share should be used and the share is based on 31.77%, resulting in about \$615k
- Oberst Rd Turn Lane Warrant - As shown in Appendix I, the turn lane warrant is just under the threshold based on the development projections for the year of opening. The warrant would likely be met very soon after opening, and this safety need should be considered.
- Brookman Rd Access Management - The narrative states that the access management standards are met, but per Figure 13, several access are within the 600' spacing.

Per City Engineer Memorandum dated July 9, 2019, Exhibit B.4, the applicant's traffic engineer has presented findings supporting transportation mitigation requirements. Due to jurisdictional agency transportation system planning efforts for the area, in lieu of constructing such improvements at this time the City, Washington County and ODOT agree that Prior to Final Approval of Engineering Plans, the applicant shall pay fee in-lieu-of construction amounts as conditioned under E3.

**RECOMMENDED CONDITION:** (E4) Prior to final engineering plan approval, applicant shall confirm meeting access spacing standards on Brookman Road or provide a signed design exception approval from Washington County.

**Oregon Department of Transportation (ODOT) -** ODOT Comments and Conditions are listed in a letter from Marah Danielson, ODOT Development Review Planner, dated February 21, 2019 (**Exhibit D**). In this letter, optional solutions are provided for mitigating safety concerns at the intersection of SW Brookman Road and Hwy 99W intersection.

**RECOMMENDED CONDITION:** (E5) Prior to Final Approval of Engineering Plans, based on comments and conditions stated in a review comment letter from Naomi Vogel, Associate Planner for WACO Department of Land Use and Transportation, dated June 27, 2019, applicant shall convert the intersection of SW Brookman Road at Hwy 99W to a right-in/right-out only access per County/ODOT standards.

**RECOMMENDED CONDITION:** (C2) Prior to Issuance of Engineering Compliance Agreement, applicant shall pay the City of Sherwood a fee in-lieu of construction amount for the right-turn lane improvement on Hwy 99W at the Brookman Road intersection.

**RECOMMENDED CONDITION:** (C3) Prior to Issuance of Engineering Compliance Agreement, applicant shall submit for and obtain from ODOT a Miscellaneous Permit for working in ODOT

right-of-way and, if required, an agreement with ODOT to address transfer of the ownership of the improvement to ODOT.

**RECOMMENDED CONDITION:** (E6) Prior to Final Approval of Engineering Plans, the final design plans shall include the installation of continuous fencing along the property line fronting the rail tracks to ensure the safe operation of trains by preventing illegal trespassing of pedestrians across the tracks.

**Washington County Department of Land Use & Transportation** – Naomi Vogel, Associate Planner, provided comments dated June 27, 2019 (**Exhibit C.1**). She stated that the Traffic Impact Analysis (TIA) and supplemental information by Kittleson & Associates was submitted in accordance with Washington County R&O 86-95, “Determining Traffic Safety Improvement”. County staff reviewed the TIA and concurs with the findings/recommendations of the analysis and supplemental addenda.

The applicant has proposed a public street, White Oak Terrace, approximately 100 feet from SW Oberst Road. However, the proposed access does not meet the County’s standard for access to an Arterial because it does not meet a minimum spacing standard of 600 feet. The applicant has submitted a Design Exception to the County’s access standards and has received approval by the County Engineer for the proposed public street (dated June 27, 2019).

**RECOMMENDED CONDITION:** (D1) Prior to Issuance of a Site Grading Permit, the applicant shall submit for a Washington County Facility Permit for the public improvements along SW Brookman Road per Exhibit C.1.

**RECOMMENDED CONDITION:** (B4) Prior to Final Plat Approval, dedication of additional right-of-way to provide 53 feet from the centerline of SW Brookman Road, including adequate corner radius to accommodate a future signal at the public street connection.

**RECOMMENDED CONDITION:** (H3) Prior to Grant of Occupancy, obtain a Finaled Washington County Facility Permit per Exhibit C.1.

## **B. Existing Streets**

**Except as otherwise provided, when a development abuts an existing street, the improvements requirement shall apply to that portion of the street right-of-way located between the centerline of the right-of-way and the property line of the lot proposed for development. In no event shall a required street improvement for an existing street exceed a pavement width of thirty (30) feet.**

**STFF ANALYSIS:** This criterion is satisfied as discussed and conditioned above.

## **C. Proposed Streets**

- 1. Except as otherwise provided, when a development includes or abuts a proposed street, in no event shall the required street improvement exceed a pavement width of forty (40) feet.**
- 2. Half Streets: When a half street is created, a minimum of 22 feet of driving surface shall be provided by the developer.**

**STAFF ANALYSIS:** The proposed local street are planned to be constructed to City standards with pavement width of less than 40 feet. The eastern leg of Trillium Lane, as shown on the Preliminary Street Pan, Sheet P14B of Exhibit A.2, is planned to be improved to  $\frac{3}{4}$  of the standard residential

street width. Twenty-two feet or more diving surface is planned for this segment of Trillium Lane. This standard is met.

**FINDING:** Based on the discussion above, these criteria are met.

#### **D. Extent of Improvements**

- 1. Streets required pursuant to this Chapter shall be dedicated and improved consistent with Chapter 6 of the Community Development Plan, the TSP and applicable City specifications included in the City of Sherwood Construction Standards. Streets shall include curbs, sidewalks, catch basins, street lights, and street trees. Improvements shall also include any bikeways designated on the Transportation System Plan map. Applicant may be required to dedicate land for required public improvements only when the exaction is directly related to and roughly proportional to the impact of the development, pursuant to Section 16.106.090.**

**STAFF ANALYSIS:** Right-of-way dedication and street improvements as shown on the Preliminary plans include curbs, sidewalks, catch basins, streetlights, and street trees. The Transportation System Plan identifies SW Brookman Road for future bike lanes. Frontage improvements to SW Brookman Road are planned to be provided to meet Washington County standards.

**FINDING:** This standard is met.

- 2. If the applicant is required to provide street improvements, the City Engineer may accept a future improvements guarantee in lieu of street improvements if one or more of the following conditions exist, as determined by the City:**
  - a. A partial improvement is not feasible due to the inability to achieve proper design standards;**
  - b. A partial improvement may create a potential safety hazard to motorists or pedestrians.**
  - c. Due to the nature of existing development on adjacent properties it is unlikely that street improvements would be extended in the foreseeable future and the improvement associated with the project under review does not, by itself, provide a significant improvement to street safety or capacity;**
  - d. The improvement would be in conflict with an adopted capital improvement plan;**
  - e. The improvement is associated with an approved land partition on property zoned residential use and the proposed land partition does not create any new streets;**  
**or**
  - f. Additional planning work is required to define the appropriate design standards for the street and the application is for a project that would contribute only a minor portion of the anticipated future traffic on the street.**

**STAFF ANALYSIS:** Based on the Traffic Impact Analysis and ODOT recommendations, the applicant will be required to pay the City a fee in lieu for the following:

- Right turn lane on OR 99W at the Brookman Road intersection
- SW Woodhaven Drive and SW Sunset Boulevard intersection
- SW Timbrel Court and SW Sunset Boulevard intersection

The payment for the fee in lieu have been conditioned under E3 and further discussed on page 38 of this staff report. The criteria is met.

## **E. Transportation Facilities Modifications**

- 1. A modification to a standard contained within this Chapter and Section 16.58.010 and the standard cross sections contained in Chapter 8 of the adopted TSP may be granted in accordance with the procedures and criteria set out in this section.**
- 2. A modification request concerns a deviation from the general design standards for public facilities, in this Chapter, Section 16.58.010, or Chapter 8 in the adopted Transportation System Plan. The standards that may be modified include but are not limited to:**
  - a. Reduced sight distances.**
  - b. Vertical alignment.**
  - c. Horizontal alignment.**
  - d. Geometric design (length, width, bulb radius, etc.).**
  - e. Design speed.**
  - f. Crossroads.**
  - g. Access policy.**
  - h. A proposed alternative design which provides a plan superior to these standards.**
  - i. Low impact development.**
  - j. Access Management Plans**
- 3. Modification Procedure**
  - a. A modification shall be proposed with the application for land use approval.**
  - b. A modification is processed as a Type II application. Modification requests shall be processed in conjunction with the underlying development proposal.**
  - c. When a modification is requested to provide a green street element that is not included in the Engineering Design Manual, the modification process will apply, but the modification fee will be waived.**
- 4. Criteria for Modification: Modifications may be granted when criterion 4a and any one of criteria 4b through 4e are met:**
  - a. Consideration shall be given to public safety, durability, cost of maintenance, function, appearance, and other appropriate factors to advance the goals of the adopted Sherwood Comprehensive Plan and Transportation System Plan as a whole. Any modification shall be the minimum necessary to alleviate the hardship or disproportional impact.**
  - b. Topography, right-of-way, existing construction or physical conditions, or other geographic conditions impose an unusual hardship on the applicant, and an equivalent alternative which can accomplish the same design purpose is available.**
  - c. A minor change to a specification or standard is required to address a specific design or construction problem which, if not enacted, will result in an unusual hardship. Self-imposed hardships shall not be used as a reason to grant a modification request.**
  - d. An alternative design is proposed which will provide a plan equal to or superior to the existing street standards.**
  - e. Application of the standards of this chapter to the development would be grossly disproportional to the impacts created.**

**STAFF ANALYSIS:** The applicant requested a design variation request for access onto SW Brookman Road (less than 100-foot spacing standard). The request was denied due to safety (Exhibit B.3). The applicant has provided a revised site plan, by shifting the access to meet the 100-foot access spacing standard as shown in Exhibit A.2.

The applicant proposed a cul-de-sac in the northwestern portion of the site that provides access to 18 lots. Per applicant's narrative, the cul-de-sac is necessary due to site constraints; the Portland & Western Railroad right-of-way to the north and natural resource areas to the south. The proposed cul-de-sac has a length that exceeds 464 feet and criteria limits the length of any cul-de-sac to 200 feet. A design variation request analysis has been performed with the results granting the design variation request to cul-de-sac length. The design variation request response is attached as Exhibit B.2.

**FINDING:** Based on the above discussion, the criteria is met.

### **16.106.030 Location**

#### **A. Generally**

**The location, width and grade of streets shall be considered in their relation to existing and planned streets, topographical conditions, and proposed land uses. The proposed street system shall provide adequate, convenient and safe traffic and pedestrian circulation, and intersection angles, grades, tangents, and curves shall be adequate for expected traffic volumes. Street alignments shall be consistent with solar access requirements as per Chapter 16.156, and topographical considerations.**

**STAFF ANALYSIS:** The proposed subdivision and the streets that serve the lots have been designed and located to serve the planned lots and satisfy access management standards (as far as practicable) for future streets adjacent to the to the subject site. As discussed above, safe and convenient pedestrian and bicycle access through the site is provided by sidewalks and paths. Street alignments are consistent with the solar access requirements of Chapter 16.156 as further discussed in the chapter. The criteria is met.

#### **B. Street Connectivity and Future Street Systems**

**1. Future Street Systems. The arrangement of public streets shall provide for the continuation and establishment of future street systems as shown on the Local Street Connectivity Map contained in the adopted Transportation System Plan (Figure 16).**

**STAFF ANALYSIS:** The City's TSP, Local Street Connectivity Map, Figure 18 does shows conceptual street connections with SW Brookman Road. The streets included in the application, as show on the Conceptual Future Connectivity Plan, Sheet P21 of Exhibit A.1, provide for the continuation of establishment of future street systems adjacent to the site. The criterion is met.

**2. Connectivity Map Required. New residential, commercial, and mixed use development involving the construction of new streets shall be submitted with a site plan that implements, responds to and expands on the Local Street Connectivity map contained in the TSP.**

- a. A project is deemed to be consistent with the Local Street Connectivity map when it provides a street connection in the general vicinity of the connection(s) shown on the map, or where such connection is not practicable due to topography or other physical constraints; it shall provide an alternate connection approved by the decision-maker.**
- b. Where a developer does not control all of the land that is necessary to complete a planned street connection, the development shall provide for as much of the designated connection as practicable and not prevent the street from continuing in the future.**

- c. Where a development is disproportionately impacted by a required street connection, or it provides more than its proportionate share of street improvements along property line (i.e., by building more than 3/4 width street), the developer shall be entitled to System Development charge credits, as determined by the City Engineer.
- d. Driveways that are more than 24 feet in width shall align with existing streets or planned streets as shown in the Local Street Connectivity Map in the adopted Transportation System Plan (Figure 17), except where prevented by topography, rail lines, freeways, pre-existing development, or leases, easements, or covenants.

**STAFF ANALYSIS:** The Preliminary Plans (Exhibit A.1 and A.2) are consistent with the City's TSP, Local Street Connectivity Map (Figure 18). The main access road to the subdivision is offset 100 feet west from SW Oberst Road to the south. A secondary access point from SW Brookman Road may be provided or needed with future development of Tax Lot 200. The current proposal has this secondary access point on Tax Lot 200 as an emergency access only. The applicable criteria above are met.

### **3. Block Length.**

**For new streets except arterials, block length shall not exceed 530 feet. The length of blocks adjacent to arterials shall not exceed 1,800 feet.**

**STAFF ANALYSIS:** Majority of the interior blocks are shorter than 530 feet in length, with the exception of SW Oberst Court that is ±650 feet in length, per preliminary plans, Exhibit A. The applicant states that blocks cannot be created along the northern boundary of the site due to the existing railroad right-of-way and the lack of street stubs provided through the existing Abney Revard Subdivision to the north. Per applicant narrative, to mitigate the visual impact of a larger block and to create pedestrian connectivity through the neighborhood, there is a pedestrian access easement provided mid-block, essentially creation two ±325-foot long blocks. The proposal does not include blocks along arterials at this time. The criterion is met.

- 4. Where streets must cross water features identified in Title 3 of the Urban Growth Management Functional Plan (UGMFP), provide crossings at an average spacing of 800 to 1,200 feet, unless habitat quality or length of crossing prevents a full street connection.
- 5. Where full street connections over water features identified in Title 3 of the UGMFP cannot be constructed in centers, main streets and station communities (including direct connections from adjacent neighborhoods), or spacing of full street crossings exceeds 1,200 feet, provide bicycle and pedestrian crossings at an average spacing of 530 feet, unless exceptional habitat quality or length of crossing prevents a connection.

**STAFF ANALYSIS:** These criteria is not applicable as the subject site does not contain any water features.

- 6. **Pedestrian and Bicycle Connectivity.** Paved bike and pedestrian access ways consistent with cross section standards in Figure 8-6 of the TSP shall be provided on public easements or right- of-way when full street connections are not possible, with spacing between connections of no more than 300 feet. Multi-use paths shall be built according to the Pedestrian and Bike Master Plans in the adopted TSP.

**STAFF ANALYSIS:** The proposed subdivision design includes pedestrian paths in pedestrian access easement to allow for increased pedestrian connectivity. This criterion is met.

- 7. Exceptions. Streets, bike, and pedestrian connections need not be constructed when any of the following conditions exists:**
- a. Physical or topographic conditions make a street or access way connection impracticable. Such conditions include but are not limited to freeways, railroads, steep slopes, wetlands or other bodies of water where a connection could not reasonably be provided.**
  - b. Buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; or**
  - c. Where streets or access ways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or access way connection.**

**STAFF ANALYSIS:** As stated before, street connections cannot be created along the northwest boundary of the site due to the existing Portland & Western Railroad right-of-way. Furthermore, the existing Abney Revard residential subdivision to the northeast did not provide street stubs for future development, which now limits street connections in the northeast portion of the site. Existing natural resource areas further constrains block creation. For these reason, the standard to allow for an exception to the maximum block length is met. The applicant also provided pedestrian paths through pedestrian access easement to help mitigate the impact of the increased block length. The criteria is met.

**C. Underground Utilities**

**All public and private underground utilities, including sanitary sewers and storm water drains, shall be constructed prior to the surfacing of streets. Stubs for service connections shall be long enough to avoid disturbing the street improvements when service connections are made.**

**STAFF ANALYSIS:** Per City Engineering, all new utilities and existing utilities along the subject property's frontage of SW Brookman Road shall be placed underground per City of Sherwood standards.

**FINDING:** This criterion is not met, but can be satisfied with the condition below.

**RECOMMENDED CONDITION:** (E12) Prior to final engineering plan approval, all new utilities and existing utilities along the subject property's frontage of SW Brookman Road shall be placed underground per City of Sherwood standards.

**D. Additional Setbacks**

**Generally additional setbacks apply when the width of a street right-of-way abutting a development is less than the standard width under the functional classifications in Section VI of the Community Development Plan. Additional setbacks are intended to provide unobstructed area for future street right-of-way dedication and improvements, in conformance with Section VI. Additional setbacks shall be measured at right angles from the centerline of the street.**

	Classification	Additional Setback
1	Principal Arterial (99W)	61 feet
2	Arterial	37 feet
3	Collector	32 feet
4	Neighborhood Route	32 feet
5	Local	26 feet

**FINDING:** The streets proposed and adjacent to the site will be developed to standard width and addition setbacks are not required. Therefore, this criterion is not applicable.

**16.106.040 Design**

**Standard cross sections showing street design and pavement dimensions are located in the City of Sherwood's Engineering Design Manual.**

**A. Reserve Strips**

**Reserve strips or street plugs controlling access or extensions to streets are not allowed unless necessary for the protection of the public welfare or of substantial property rights. All reserve strips shall be dedicated to the appropriate jurisdiction that maintains the street.**

**STAFF ANALYSIS:** Reserve strips and street plugs are not included with this proposal. This criterion is not applicable.

**B. Alignment**

**All proposed streets shall, as far as practicable, be in alignment with existing streets. In no case shall the staggering of streets create a "T" intersection or a dangerous condition. Street offsets of less than one hundred (100) feet are not allowed.**

**STAFF ANALYSIS:** The preliminary plans (Exhibit A) shows that streets are planned to align in a safe manner. Streets are not offset by less than 100 feet and dangerous conditions are not created. This criterion is met.

**FINDING:** These criteria have been satisfied.

**C. Future Extension**

**Where necessary to access or permit future subdivision or development of adjoining land, streets must extend to the boundary of the proposed development and provide the required roadway width. Dead-end streets less than 100' in length must comply with the Engineering Design Manual.**

**A durable sign must be installed at the applicant's expense. The sign is required to notify the public of the intent to construct future streets. The sign must read as follows: "This road will be extended with future development. For more information, contact the City of Sherwood Engineering Department."**

**FINDING:** The Conceptual Future Connectivity Plan, Sheet P21 of Exhibit A.1, shows a number of streets are planned to be extended to the boundary of the site to provide connections for potential future development. Each street complies with the Engineering Design Manual and the required signs will be installed per City standards. This criterion is met.



#### **D. Intersection Angles**

**Streets shall intersect as near to ninety (90) degree angles as practical, except where topography requires a lesser angle. In all cases, the applicant shall comply with the Engineering Design Manual.**

**FINDING:** As designed and shown in the preliminary plans, Exhibit A.1 and A.3, new streets are planned to intersect near to 90-degree angles and comply with the Engineering Design Manual. This standard is met.

#### **E. Cul-de-sacs**

- 1. All cul-de-sacs shall be used only when exceptional topographical constraints, existing development patterns, or compliance with other standards in this code preclude a street extension and circulation. A cul-de-sac shall not be more than two hundred (200) feet in length and shall not provide access to more than 25 dwelling units.**
- 2. All cul-de-sacs shall terminate with a turnaround in accordance with the specifications in the Engineering Design Manual. The radius of circular turnarounds may be larger when they contain a landscaped island, parking bay in their center, Tualatin Valley Fire and Rescue submits a written request, or an industrial use requires a larger turnaround for truck access.**
- 3. Public easements, tracts, or right-of-way shall provide paved pedestrian and bicycle access ways at least 6 feet wide where a cul-de-sac or dead-end street is planned, to connect the ends of the streets together, connect to other streets, or connect to other existing or planned developments in accordance with the standards of this Chapter, the TSP, the Engineering Design Manual or other provisions identified in this Code for the preservation of trees.**

**STAFF ANALYSIS:** The applicant proposed a cul-de-sac in the northwestern portion of the site that provides access to 18 lots. Per applicant's narrative, the cul-de-sac is necessary due to site constraints; the Portland & Western Railroad right-of-way to the north and natural resource areas to the south. The proposed cul-de-sac has a length that exceeds 464 feet and criteria limits the length of any cul-de-sac to 200 feet. A design variation request analysis has been performed with the results granting the design variation request to cul-de-sac length. The design variation request response is attached as Exhibit B.2.

**FINDING:** Based on the above discussion, the criteria are met.

#### **F. Grades and Curves**

**Grades shall be evaluated by the City Engineer and comply with the Engineering Design Manual.**

**FINDING:** The street grade has been designed in accordance with the City's Public Works Design standards. This standard is met.

#### **G. Streets Adjacent to Railroads**

**Streets adjacent to railroads shall run approximately parallel to the railroad and be separated by a distance suitable to allow landscaping and buffering between the street and railroad. Due consideration shall be given at cross streets for the minimum distance required for future grade separations and to provide sufficient depth to allow screening of the railroad.**

**FINDING:** The site abuts the Portland & Western Railroad right-of-way. This criterion is not applicable; no proposed streets are planned adjacent to railroads.

#### **H. Buffering of Major Streets**

**Where a development abuts Highway 99W, or an existing or proposed principal arterial, arterial or collector street, or neighborhood route, adequate protection for residential properties must be provided, through and local traffic be separated, and traffic conflicts minimized. In addition, visual corridors pursuant to Section 16.142.040, and all applicable access provisions of Chapter 16.96, are to be met. Buffering may be achieved by: parallel access streets, lots of extra depth abutting the major street with frontage along another street, or other treatment suitable to meet the objectives of this Code.**

**STAFF ANALYSIS:** The applicant is proposing a 15-foot wide landscaped visual corridor along the SW Brookman Road - a County Arterial roadway. Requirements for the Visual Corridor along with conditions of approvals will be further discussed in the staff report under Section 16.142.040 Visual Corridors.

**FINDING:** Based on the discussion above, this criterion is met.

#### **I. Median Islands**

**As illustrated in the adopted Transportation System Plan, Chapter 8, median islands may be required on arterial or collector streets for the purpose of controlling access, providing pedestrian safety or for aesthetic purposes.**

**FINDING:** The frontage improvements along SW Brookman Road do not include a median at this time. This standard is not applicable.

#### **J. Transit Facilities**

**Development along an existing or proposed transit route, as illustrated in Figure 7-2 in the TSP, is required to provide areas and facilities for bus turnouts, shelters, and other transit-related facilities to Tri-Met specifications. Transit facilities shall also meet the following requirements:**

- 1. Locate buildings within 20 feet of or provide a pedestrian plaza at major transit stops.**
- 2. Provide reasonably direct pedestrian connections between the transit stop and building entrances on the site.**
- 3. Provide a transit passenger landing pad accessible to disabled persons (if not already existing to transit agency standards).**
- 4. Provide an easement or dedication for a passenger shelter and underground utility connection from the new development to the transit amenity if requested by the public transit provider.**
- 5. Provide lighting at a transit stop (if not already existing to transit agency standards).**

**FINDING:** Transit System and Potential Enhancements, Figure 14, of the Transportation System Plan shows SW Brookman Road as a "Potential Local Enhancement". However, as noted within Figure 14, these potential local enhancement areas could be selected for future enhancement through further planning studies. Therefore, SW Brookman Road is not considered an existing or proposed transit route and the criteria does not apply.

#### **K. Traffic Controls**

- 1. Pursuant to Section 16.106.080, or as otherwise required by the City Engineer, an application must include a traffic impact analysis to determine the number and types of traffic controls necessary to accommodate anticipated traffic flow.**

2. For all other proposed developments including commercial, industrial or institutional uses with over an estimated 400 ADT, or as otherwise required by the City Engineer, the application must include a traffic impact analysis to determine the number and types of traffic controls necessary to accommodate anticipated traffic flow.

**STAFF ANALYSIS:** Per applicant's narrative, a Transportation Impact Analysis (TIA) is included with the application (applicant's Exhibit J). The TIA shows that the subdivision and future lot development is anticipated to generate approximately 110 AM peak hour trips, 145 PM peak hour trips and approximately 1,362 Average Daily Trips (ADT). The TIA analyzed 10 intersections in the vicinity. After forecasting the year 2020 total traffic conditions, the TIA determined that one intersection—Highway 99W/SW Brookman-SW Chapman Road—will require mitigation. The TIA recommends that an exclusive right-turn lane on the SW Brookman Road approach be provided in conjunction with this project.

**FINDING:** Based on the discussion above, the criteria is met.

#### **L. Traffic Calming**

1. The following roadway design features, including internal circulation drives, may be required by the City in new construction in areas where traffic calming needs are anticipated:
  - a. Curb extensions (bulb-outs).
  - b. Traffic diverters/circles.
  - c. Alternative paving and painting patterns.
  - d. Raised crosswalks, speed humps, and pedestrian refuges.
  - e. Other methods demonstrated as effective through peer reviewed Engineering studies.
2. With approval of the City Engineer, traffic calming measures such as speed humps and additional stop signs can be applied to mitigate traffic operations and/or safety problems on existing streets. They should not be applied with new street construction unless approved by the City Engineer and Tualatin Valley Fire & Rescue.

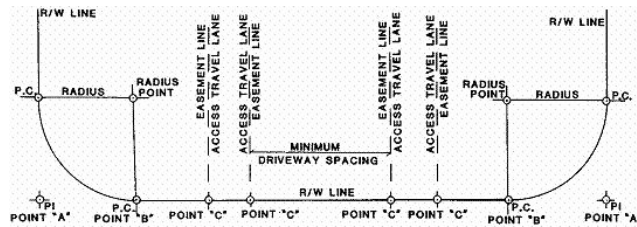
**FINDING:** The applicant is not proposing and is not required to supply any of the above listed traffic calming measures. These criteria do not apply.

#### **M. Vehicular Access Management**

All developments shall have legal access to a public road. Access onto public streets shall be permitted upon demonstration of compliance with the provisions of adopted street standards in the Engineering Design Manual.

1. Measurement: See the following access diagram where R/W = Right-of-Way; and P.I. = Point-of-Intersection where P.I. shall be located based upon a 90 degree angle of intersection between ultimate right-of-way lines.
  - a. Minimum right-of-way radius at intersections shall conform to City standards.
  - b. All minimum distances stated in the following sections shall be governed by sight distance requirements according to the Engineering Design Manual.
  - c. All minimum distances stated in the following sections shall be measured to the nearest easement line of the access or edge of travel lane of the access on both sides of the road.
  - d. All minimum distances between accesses shall be measured from existing or approved accesses on both sides of the road.

- e. Minimum spacing between driveways shall be measured from Point "C" to Point "C" as shown below:



2. Roadway Access

No use will be permitted to have direct access to a street or road except as specified below. Access spacing shall be measured from existing or approved accesses on either side of a street or road. The lowest functional classification street available to the legal lot, including alleys within a public easement, shall take precedence for new access points.

a. Local Streets:

Minimum right-of-way radius is fifteen (15) feet. Access will not be permitted within ten (10) feet of Point "B," if no radius exists, access will not be permitted within twenty-five (25) feet of Point "A." Access points near an intersection with a Neighborhood Route, Collector or Arterial shall be located beyond the influence of standing queues of the intersection in accordance with AASHTO standards. This requirement may result in access spacing greater than ten (10) feet.

b. Neighborhood Routes:

Minimum spacing between driveways (Point "C" to Point "C") shall be fifty (50) feet with the exception of single family residential lots in a recorded subdivision. Such lots shall not be subject to a minimum spacing requirement between driveways (Point "C" to Point "C"). In all instances, access points near an intersection with a Neighborhood Route, Collector or Arterial shall be located beyond the influence of standing queues of the intersection in accordance with AASHTO standards. This requirement may result in access spacing greater than fifty (50) feet.

c. Collectors:

All commercial, industrial and institutional uses with one-hundred-fifty (150) feet or more of frontage will be permitted direct access to a Collector. Uses with less than one-hundred-fifty (150) feet of frontage shall not be permitted direct access to Collectors unless no other alternative exists. Where joint access is available it shall be used, provided that such use is consistent with Section 16.96.040, Joint Access. No use will be permitted direct access to a Collector within one-hundred (100) feet of any present Point "A." Minimum spacing between driveways (Point "C" to Point "C") shall be one-hundred (100) feet. In all instances, access points near an intersection with a Collector or Arterial shall be located beyond the influence of standing queues of the intersection in accordance with AASHTO standards. This requirement may result in access spacing greater than one hundred (100) feet.

d. Arterials and Highway 99W - Points of ingress or egress to and from Highway 99W and arterials designated on the Transportation Plan Map, attached as Figure 1 of the Community Development Plan, Part II, shall be limited as follows:

- (1) Single and two-family uses and manufactured homes on individual residential lots developed after the effective date of this Code shall not be granted permanent driveway ingress or egress from Highway 99W or arterials. If alternative public access is not available at the time of development,

provisions shall be made for temporary access which shall be discontinued upon the availability of alternative access.

- (2) Other private ingress or egress from Highway 99W and arterial roadways shall be minimized. Where alternatives to Highway 99W or arterials exist or are proposed, any new or altered uses developed after the effective date of this Code shall be required to use the alternative ingress and egress. Alternatives include shared or crossover access agreement between properties, consolidated access points, or frontage or backage roads. When alternatives do not exist, access shall comply with the following standards:
  - (a) Access to Highway 99W shall be consistent with ODOT standards and policies per OAR 734, Division 51, as follows: Direct access to an arterial or principal arterial will be permitted provided that Point 'A' of such access is more than six hundred (600) feet from any intersection Point 'A' or other access to that arterial (Point 'C').
  - (b) The access to Highway 99W will be considered temporary until an alternative access to public right-of-ways is created. When the alternative access is available the temporary access to Highway 99W shall be closed.
- (3) All site plans for new development submitted to the City for approval after the effective date of this Code shall show ingress and egress from existing or planned local, neighborhood route or collector streets, including frontage or backage roads, consistent with the Transportation Plan Map and Chapter 6 of the Community Development Plan.

### 3. Exceptions to Access Criteria for City-Owned Streets

- a. Alternate points of access may be allowed if an access management plan which maintains the classified function and integrity of the applicable facility is submitted to and approved by the City Engineer as the access management plan must be included as part of the land use submittal or an application for modification as described in § 16.106.020E. (Transportation Facilities Modifications).
- b. Access in the Old Town (OT) Overlay Zone  
Access points in the OT Overlay Zone shown in an adopted plan such as the Transportation System Plan, are not subject to the access spacing standards and do not need a variance. However, the applicant shall submit a partial access management plan for approval by the City Engineer. The approved plan shall be implemented as a condition of development approval.

**STAFF ANALYSIS:** The preliminary plans (Exhibit A.1 and A.2) demonstrate that the vehicular access management standards above are met. The site does not access Highway 99W and is not in the Old Town Overlay District. The applicable criteria are met.

### N. Private Streets

1. The construction of a private street serving a single-family residential development is prohibited unless it provides principal access to two or fewer residential lots or parcels (i.e. flag lots).
2. Provisions shall be made to assure private responsibility for future access and maintenance through recorded easements. Unless otherwise specifically authorized, a private street shall comply with the same standards as a public street identified in the Community Development Code and the Transportation System Plan.
3. A private street shall be distinguished from public streets and reservations or restrictions relating to the private street shall be described in land division documents and deed records

5. A private street shall also be signed differently from public streets and include the words "Private Street".

**FINDING:** The Middlebrook subdivision does not propose the creation of any private streets. The criteria above do not apply.

#### 16.106.060 Sidewalks

##### A. Required Improvements

1. Except as otherwise provided, sidewalks shall be installed on both sides of a public street and in any special pedestrian way within new development.
2. For Highway 99W, arterials, or in special industrial districts, the City Manager or designee may approve a development without sidewalks if alternative pedestrian routes are available.
3. In the case of approved cul-de-sacs serving less than fifteen (15) dwelling units, sidewalks on one side only may be approved by the City Manager or designee.

**FINDING:** As shown on P14B, Preliminary Street Plan of Exhibit A.3, new streets (with the exception of  $\frac{3}{4}$  street improvement east leg of SW Trillium Lane) include sidewalks on both sides of the street. The applicant is required to provide a 12-foot wide sidewalk along the site's frontage of SW Brookman Road. The applicable criteria are met.

##### B. Design Standards

1. Arterial and Collector Streets Arterial and collector streets shall have minimum eight (8) foot wide sidewalks/multi- use path, located as required by this Code.
2. Local Streets  
Local streets shall have minimum five (5) foot wide sidewalks, located as required by this Code.
3. Handicapped Ramps  
Sidewalk handicapped ramps shall be provided at all intersections.

**STAFF ANALYSIS:** SW Brookman Road is classified as an Arterial and is under the jurisdiction of Washington County. Figure 6, Parks Trails and Schools of the Brookman Addition Concept Plan, shows the frontage of SW Brookman with a Multi-Use Path. The applicant is proposing a 10-foot sidewalk along SW Brookman Road, but the typical City Multi-Use Pedestrian Way sidewalk width is 12-feet.

**FINDING:** This criterion is not met, but can be satisfied as conditioned below:

**RECOMMENDED CONDITION:** (B5) Prior to Final Plat Approval, the multi-use pedestrian way on SW Brookman Road shall be 12-feet wide.

##### C. Pedestrian and Bicycle Paths

Provide bike and pedestrian connections on public easements or right-of-way when full street connections are not possible, with spacing between connections of no more than 330 feet except where prevented by topography, barriers such as railroads or highways, or environmental constraints such as rivers and streams.

**STAFF ANALYSIS:** The planned subdivision provides bicycle and pedestrian connections where appropriate and possible. The criterion is met.

### **16.106.070 Bike Lanes**

If shown in Figure 13 of the Transportation System Plan, bicycle lanes shall be installed in public rights-of-way, in accordance with City specifications. Bike lanes shall be installed on both sides of designated roads, should be separated from the road by a twelve-inch stripe or other means approved by Engineering Staff, and should be a minimum of five (5) feet wide.

**FINDING:** Figure 13 of the Transportation System Plan identify proposed bicycle lanes on SW Brookman Road. SW Brookman Road is under the jurisdiction control of Washington County. The planned right-of-way dedication and improvements, as reflected in the preliminary plan of Exhibit A, are in accordance with Washington County standards and provide adequate area for a bike line. This criterion is met.

### **16.106.080 Traffic Impact Analysis (TIA)**

#### **A. Purpose**

The purpose of this section is to implement Sections 660-012-0045(2)(b) and -0045(2)(e) of the State Transportation Planning Rule (TPR), which require the City to adopt performance standards and a process to apply conditions to land use proposals in order to minimize impacts on and protect transportation facilities. This section establishes requirements for when a traffic impact analysis (TIA) must be prepared and submitted; the analysis methods and content involved in a TIA; criteria used to review the TIA; and authority to attach conditions of approval to minimize the impacts of the proposal on transportation facilities.

This section refers to the TSP for performance standards for transportation facilities as well as for projects that may need to be constructed as mitigation measures for a proposal's projected impacts. This section also relies on the City's Engineering Design Manual to provide street design standards and construction specifications for improvements and projects that may be constructed as part of the proposal and mitigation measures approved for the proposal.

#### **B. Applicability**

A traffic impact analysis (TIA) shall be required to be submitted to the City with a land use application at the request of the City Engineer or if the proposal is expected to involve one (1) or more of the following:

1. An amendment to the Sherwood Comprehensive Plan or zoning map.
2. A new direct property approach road to Highway 99W is proposed.
3. The proposed development generates fifty (50) or more PM peak-hour trips on Highway 99W, or one hundred (100) PM peak-hour trips on the local transportation system.
4. An increase in use of any adjacent street or direct property approach road to Highway 99W by ten (10) vehicles or more per day that exceed the twenty thousand-pound gross vehicle weight.
5. The location of an existing or proposed access driveway does not meet minimum spacing or sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles are likely to queue or hesitate at an approach or access connection, thereby creating a safety hazard.
4. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or traffic crashes in the approach area.

**STAFF ANALYSIS:** The applicant provided a TIA with supplemental information. The applicant's TIA indicates that the SW Brookman Road/Hwy 99W intersection currently fails to meet capacity and mobility requirements. The TIA notes that the additional trips generated by the proposed development does not significantly increase the deficit capacity issue. The TIA did identify that the addition of a right-turn lane would be an appropriate condition to correct the development's proportionate share of the mobility issue.

#### SW Brookman Road/Hwy 99W Intersection

In light of these variables ODOT has conditioned that the applicant converts the SW Brookman Road/Hwy 99W intersection into a right-in/right-out configuration, which would satisfy a safety issue with the current intersection configuration. ODOT has also conditioned that the applicant pay a proportionate share fee in-lieu-of construction cost for the right-turn lane. These monies would be placed in a set aside fund to be used in the future signalized intersection of the realigned SW Brookman Road with Hwy 99W. This amount has been estimated by the applicants consulting engineers to be \$109,430.

#### SW Woodhaven Drive & SW Timbrel Lane and SW Sunset Boulevard Intersections

The TIA analysis also identified two other intersections which will have proportionate share impacts, 1) SW Sunset Boulevard and SW Woodhaven Drive, and 2) SW Sunset Boulevard and SW Timbrel Lane.

SW Woodhaven Drive is identified as having a \$43,548 (4.15%) proportionate share cost of a traffic signal installation with an estimated cost of \$1,050,000.

SW Timbrel Court is identified as having a \$33,451 (5.31%) proportionate share cost of a traffic roundabout installation with an estimated cost of \$630,000.

**FINDING:** Based on the above discussion, the standards can be satisfied with the following conditions

**RECOMMENDED CONDITION:** (E3) The applicant's traffic engineer has presented findings supporting transportation mitigation requirements. Due to jurisdictional agency transportation system planning efforts for the area, in lieu of constructing such improvements at this time the City, Washington County and ODOT agree that Prior to Final Approval of Engineering Plans, the applicant shall pay fee in-lieu-of construction amounts as follows:

- a. SW Brookman Road - \$109,430 for the right-turn lane onto Hwy 99W. Funds to be deposited into City TDT funds account and dedicated strictly for a future SW Brookman Road/Hwy 99W signalized intersection improvement project. This TDT fee in-lieu-of construction payment shall be treated as 100% credit eligible towards TDT fee assessments on the developments single family residential units.
- b. SW Woodhaven Drive & SW Sunset Boulevard - \$43,548 for proportionate share of signalized intersection improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Woodhaven Drive & SW Sunset Boulevard signalized intersection improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards City TDT or City Transportation SDC fee assessments on the developments single family residential units.
- c. SW Timbrel Lane & SW Sunset Boulevard - \$33,451 for proportionate share of traffic roundabout improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Timbrel Lane & SW Sunset Boulevard traffic roundabout improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards City TDT or 54% credit eligible towards City



Transportation SDC fee assessments on the developments single family residential units.

## **CHAPTER 16.110 SANITARY SEWERS**

### **16.110.010 - Required Improvements**

**Sanitary sewers shall be installed to serve all new developments and shall connect to existing sanitary sewer mains. Provided, however, that when impractical to immediately connect to a trunk sewer system, the use of septic tanks may be approved, if sealed sewer laterals are installed for future connection and the temporary system meets all other applicable City, Clean Water Services, Washington County and State sewage disposal standards**

**STAFF ANALYSIS:** The proposed project site is located near an existing 15-inch diameter City sanitary sewer trunk line, located within the Cedar Creek corridor. As part of sanitary sewer services to the future southern and western Urban Growth Boundary and Urban Reserve parts of Sherwood, the extension of the sanitary sewer trunk line will need to be extended and sized to meet these future needs.

In November 2018, CWS staff presented a Resolution (R&O 18-25) to the CWS Board of Director, whereby CWS staff are being authorized to acquire easement rights for the extension of the Brookman sewer trunk line. This Resolution is the basis for coordination between CWS and the applicant to obtain easement rights and provide sanitary sewer service to the proposed development, while also providing capacity for the future development needs of the areas described above. The design of this segment of the sanitary trunk line is being performed by the applicant's engineer, while approval of the pipeline design size, invert elevation, and slope are being dictated by CWS.

**FINDING:** As conditioned below, the proposed subdivision will be able to provide sanitary sewer.

**RECOMMENDED CONDITION:** (E14) Prior to Final Approval of Engineering Plans, applicant shall obtain and submit a copy of an agreement letter between applicant and CWS which supports CWS approval of sanitary trunk line design.

**RECOMMENDED CONDITION:** (E15) Prior to Final Approval of Engineering Plans, the design of the public sanitary sewer system shall conform with CWS design and construction standards (CWS R&O 17-5).

**RECOMMENDED CONDITION:** (H4) Prior to Grant of Occupancy, all installed private sanitary sewer piping shall be installed meeting the standards of the Oregon Specialty Plumbing Code (recent edition).

### **16.110.020 - Design Standards**

#### **A. Capacity**

**Sanitary sewers shall be constructed, located, sized, and installed at standards consistent with this Code, the Sanitary Sewer Service Plan Map in the Sanitary Sewer Master Plan, and other applicable Clean Water Services and City standards, in order to adequately serve the proposed development and allow for future extensions.**

#### **B. Over-Sizing**

1. When sewer facilities will, without further construction, directly serve property outside a proposed development, gradual reimbursement may be used to equitably distribute the cost of that over-sized system.
2. Reimbursement shall be in an amount estimated by the City to be a proportionate share of the cost for each connection made to the sewer by property owners outside of the development, for a period of ten (10) years from the time of installation of the sewers. The boundary of the reimbursement area and the method of determining proportionate shares shall be determined by the City. Reimbursement shall only be made as additional connections are made and shall be collected as a surcharge in addition to normal connection charges.

**STAFF ANALYSIS:** As discussed and conditioned above, this criterion can be satisfied.

#### **16.110.030 Service Availability**

**Approval of construction plans for new facilities pursuant to Chapter 16.106, and the issuance of building permits for new development to be served by existing sewer systems shall include certification by the City that existing or proposed sewer facilities are adequate to serve the development**

**STAFF ANALYSIS:** As discussed and conditioned above, this criterion can be satisfied.

### **CHAPTER 16.112 - WATER SUPPLY**

#### **16.112.010 Required Improvements**

**Water lines and fire hydrants conforming to City and Fire District standards shall be installed to serve all building sites in a proposed development. All waterlines shall be connected to existing water mains or shall construct new mains appropriately sized and located in accordance with the Water System Master Plan.**

**STAFF ANALYSIS:** The proposed utility plans, P20 of Exhibit A.1, indicate that public water mainline services are available within Inkster Drive in the form of a 12" diameter waterline pipe. City Public Works has modeled the existing systems capability to provide water flow and pressure and found that the existing system can provide service to the proposed site development.

Design system plans provide two separate points of connection to the existing waterline within Inkster Drive and routed through two separate public utility easements, south beneath the Portland and Western Railroad system tracks to the site. These connection points meet the looped system requirements of Public Works. The City's water system master plan shows the extension of the 12-inch waterline through Oberst Road to Brookman Road, and east and west along Brookman Road to the extents of the project boundaries.

Maintenance vehicle access to the waterlines that run through easements from the site to Inkster must be shown to be feasible. Profile of waterlines running through easements to be provided as part of plans, along with not less than three cross-section details for each waterline.

**FINDING:** As conditioned below, the proposed subdivision will be able to provide water service.

**RECOMMENDED CONDITION:** (E16) Prior to Final Approval of Engineering Plans, the water system design shall include the extension of a 12-inch diameter water line from Inkster Drive to Brookman Road along Oberst Road, and east and west along Brookman Road to the extents of the site development project along Brookman Road.

**RECOMMENDED CONDITION:** (G1) Prior to Final Acceptance of Public Waterline Improvements, the waterline shall obtain approval by City Public Works staff for compliance with City construction and testing requirements.

**RECOMMENDED CONDITION:** (H5) Prior to Grant of Occupancy, all installed private water service piping shall be installed meeting the standards of the Oregon Specialty Plumbing Code (recent edition).

**RECOMMENDED CONDITION:** (E17) Prior to Final Approval of Engineering Plans, the public water system design shall include waterline extension stubs to allow adjacent future development access to public water systems.

**RECOMMENDED CONDITION:** (E18) Prior to Final Approval of Engineering Plans, the public water system alignments that are within easements shall be shown on the design plans and shall include profiles and not less than three cross-sections equally spaced per alignment.

**RECOMMENDED CONDITION:** (H6) Prior to Grant of Occupancy, any existing ground water wells located within the defined site development limits, identified during site design or construction shall be abandoned per State OAR 690-220-0030.

### **16.112.020 Design Standards**

#### **A. Capacity**

**Water lines providing potable water supply shall be sized, constructed, located and installed at standards consistent with this Code, the Water System Master Plan, the City's Design and Construction Manual, and with other applicable City standards and specifications, in order to adequately serve the proposed development and allow for future extensions.**

**STAFF ANALYSIS:** Per the City Code, water services will be required for all new lots within the proposed subdivision. As conditioned above, this subdivision will satisfy this criterion.

#### **B. Fire Protection**

**All new development shall comply with the fire protection requirements of Chapter 16.116, the applicable portions of Chapter 7 of the Community Development Plan, and the Fire District.**

**STAFF ANALYSIS:** Tom Mooney, Deputy Fire Marshal, Tualatin Valley Fire and Rescue submitted a review letter dated February 1, 2019, Exhibit E, addressing temporary fire access, gates and gate access, dead end roads and signage. This is further discussed in Chapter 16.116 of this report.

**FINDING:** This standard is not, met but can be as conditioned below (F4).

#### **C. Over-Sizing**

- 1. When water mains will, without further construction, directly serve property outside a proposed development, gradual reimbursement may be used to equitably distribute the cost of that over-sized system.**
- 2. Reimbursement shall be in an amount estimated by the City to be the proportionate share of the cost of each connection made to the water mains by property owners outside the development, for a period of ten (10) years from the time of installation of the mains. The boundary of the reimbursement area and the method of determining proportionate shares shall be determined by the City. Reimbursement shall only be made as additional connections are made and shall be collected as a surcharge in addition to normal connection charges.**

3. When over-sizing is required in accordance with the Water System Master Plan, it shall be installed per the Water System Master Plan. Compensation for over-sizing may be provided through direct reimbursement, from the City, after mainlines have been accepted. Reimbursement of this nature would be utilized when the cost of over-sizing is for system wide improvements.

**STAFF ANALYSIS:** As discussed and conditioned above, this criterion will be satisfied.

#### **16.112.030 Service Availability**

Approval of construction plans for new water facilities pursuant to Chapter 16.106, and the issuance of building permits for new development to be served by existing water systems shall include certification by the City that existing or proposed water systems are adequate to serve the development.

**STAFF ANALYSIS:** As discussed and conditioned above, this criterion will be satisfied.

### **CHAPTER 16.114 - STORM WATER**

#### **16.114.010 - Required Improvements**

Storm water facilities, including appropriate source control and conveyance facilities, shall be installed in new developments and shall connect to the existing downstream drainage systems consistent with the Comprehensive Plan and the requirements of the Clean Water Services water quality regulations contained in their Design and Construction Standards R&O 04-9, or its replacement.

#### **16.114.020 - Design Standards**

##### **A. Capacity**

Storm water drainage systems shall be sized, constructed, located, and installed at standards consistent with this Code, the Storm Drainage Master Plan Map, attached as Exhibit E, Chapter 7 of the Community Development Plan, other applicable City standards, the Clean Water Services Design and Construction Standards R&O 04-9 or its replacement, and hydrologic data and improvement plans submitted by the developer.

##### **B. On-Site Source Control**

Storm water detention and groundwater recharge improvements, including but not limited to such facilities as dry wells, detention ponds, and roof top ponds shall be constructed according to Clean Water Services Design and Construction Standards.

##### **C. Conveyance System**

The size, capacity and location of storm water sewers and other storm water conveyance improvements shall be adequate to serve the development and accommodate upstream and downstream flow. If an upstream area discharges through the property proposed for development, the drainage system shall provide capacity to the receive storm water discharge from the upstream area. If downstream drainage systems are not sufficient to receive an increase in storm water caused by new development, provisions shall be made by the developer to increase the downstream capacity or to provide detention such that the new development will not increase the storm water caused by the new development.

**STAFF ANALYSIS:** The proposed development plans indicate a regional storm water treatment facility located within Tract A of the development site. A preliminary storm water report (PSR), prepared by AKS Engineering, dated September 2018 is included in the application submittal.

The Preliminary Stormwater Report (PSR) indicates that SLOPES V (NWR 2014-03-14) conditions exist and that discharge rates for the post developed 2-year and 10-year rainfall events must not exceed the pre-developed discharge rates. The PSR indicates that detention requirements will be necessary to meet the SLOPES V standards.

The PSR also provides analysis of the 25-year stormwater event to determine if any downstream obstruction would require on-site detention as mitigation. The analysis indicates that detention of a 25-year stormwater event to mitigate a downstream obstruction is not required as the post-developed increase of the Cedar Creek flow is less than 5% of the pre-developed flow.

The proposed utility plans indicate that the stormwater system discharges into an existing stormwater culvert located under Brookman Road. The PSR does not provide any information on the condition or capacity of the culvert, to handle the flows. The final stormwater report shall provide a technical assessment of the physical condition and flow capacity of the culvert, along with any necessary recommended mitigation efforts. The design plans will provide specific design details which reflect the mitigation impacts noted in the final stormwater report.

Clean Water Services comments, dated February 4, 2019, states that a storm water connection permit authorization will be required prior to plat approval and recordation. Application for a CWS Permit Authorization must be in accordance with the requirements of the Design and Construction Standards, Resolution and Order No. 17-5 (or current R&O in effect at time of Engineering plan submittal). **Exhibit F.**

**FINDING:** As conditioned below, the proposed subdivision will be able to provide stormwater service.

**RECOMMENDED CONDITION:** (E19) Prior to Final Approval of Engineering Plans, applicant shall submit a final stormwater report, stamped by a civil engineer registered in the State of Oregon, and complying with the engineering design requirements and standards of CWS (*CWS Design and Construction Standards Manual and Surface Water Management R&O 17-05*).

**RECOMMENDED CONDITION:** (C4) Prior to Issuance of an Engineering Compliance Agreement, applicant shall obtain a Stormwater Connection Permit issued from CWS per Exhibit F.

**RECOMMENDED CONDITION:** (E20) Prior to Final Approval of Engineering Plans, the final stormwater report and construction plan set shall include provisions for detaining stormwater meeting the SLOPES V requirements.

**RECOMMENDED CONDITION:** (G2) Prior to Final Acceptance of Public Improvements, the stormwater treatment and detention facility shall be located in a tract of land dedicated to the City of Sherwood and shown on the recorded plat of the subdivision.

**RECOMMENDED CONDITION:** (E21) Prior to Final Approval of Engineering Plans, the final stormwater report shall include a technical analysis of the condition and capacity of the proposed discharge point at the culvert. In addition, the final construction plan set shall provide specific design details which reflects the final stormwater reports mitigation recommendations.

#### **16.114.030 Service Availability**

**Approval of construction plans for new storm water drainage facilities pursuant to Chapter 16.106, and the issuance of building permits for new development to be served by existing storm water drainage systems shall include certification by the City that existing or proposed drainage facilities are adequate to serve the development.**

**STAFF ANALYSIS:** This application does not include the approval of construction plans and therefore this criterion is not applicable.

### **CHAPTER 16.116 FIRE PROTECTION**

#### **16.116.010 - Required Improvements**

**When land is developed so that any commercial or industrial structure is further than two hundred and fifty (250) feet or any residential structure is further than five hundred (500) feet from an adequate water supply for fire protection, as determined by the Fire District, the developer shall provide fire protection facilities necessary to provide adequate water supply and fire safety.**

**STAFF ANALYSIS:** The Preliminary Composite Utility Plan, Sheet P20 of Exhibit A.1, shows planned fire protection facilities. Tom Mooney, Deputy Fire Marshal, Tualatin Valley Fire and Rescue submitted comments dated February 1, 2019.

Developments of one- or two-Family dwellings, where the number of dwelling units exceeds 30, shall be provided with separate and approved fire apparatus access roads and shall meet the requirements of Section D104.3 with some exceptions. The applicant is proposing a temporary access road on Tax Lot 200 to meet this standard.

Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround. The east leg of SW Wapato Drive of the revised site plan, Sheet P07B of Exhibit A.2, is ±196 feet from the east curblineline of SW White Oak Terrace Road to the street stub. This distance may exceed TVF&R standards, in which case a street hammerhead may be required or provide sprinkler system for Lots 6 and 7. Therefore, prior to issuance of building permits, the applicant shall obtain a Uniform Alternate Construction Standards approval for sprinkler systems for the buildings on Lots 6 and 7 or provide a hammerhead turnaround.

**FINDINGS:** Based on the discussion above, the criterion can be met as conditioned below.

**RECOMMENDED CONDITION:** (F4 Prior to the issuance of building permits for the propose subdivision, the applicant shall provide the Planning Department with a letter or email, from TVFR District Fire marshal that indicates the concerns within his letter, attached as Exhibit E, have been addressed to the district's satisfaction.

**RECOMMENDED CONDITION:** (B6) Prior to Final Plat approval, the 20-foot temporary emergency access easement over Map 3S1 06B Tax Lot 200 shall be recorded.

**RECOMMENDED CONDITION:** (E22) Prior to Final Approval of Engineering Plans, the design of the emergency access road shall include a TVF&R approved locking gate system at both the north right-of-way line of SW Brookman Road and at the north property line of Tax Lot 3S106B000200.

**RECOMMENDED CONDITION:** (E23) Prior to Final Approval of Engineering Plans, the design of the east leg SW Wapato Lake Drive shall confirm that TVF&R standards which require when a hammerhead turnaround are met or not met. The applicant may also obtain a Uniform Alternate Construction Standard approval for sprinkler systems for the buildings on Lots 6 and 7.

**RECOMMENDED CONDITION:** (H7) Prior to Grant of Occupancy, the 20-foot temporary emergency access shall be constructed.

#### **16.116.020 Standards**

##### **A. Capacity**

All fire protection facilities shall be approved by and meet the specifications of the Fire District, and shall be sized, constructed, located, and installed consistent with this Code, Chapter 7 of the Community Development Plan, and other applicable City standards, in order to adequately protect life and property in the proposed development.

##### **B. Fire Flow**

Standards published by the Insurance Services Office, entitled "Guide for Determination of Required Fire Flows" shall determine the capacity of facilities required to furnish an adequate fire flow. Fire protection facilities shall be adequate to convey quantities of water, as determined by ISO standards, to any outlet in the system, at no less than twenty (20) pounds per square inch residual pressure. Water supply for fire protection purposes shall be restricted to that available from the City water system. The location of hydrants shall be taken into account in determining whether an adequate water supply exists.

##### **C. Access to Facilities**

Whenever any hydrant or other appurtenance for use by the Fire District is required by this Chapter, adequate ingress and egress shall be provided. Access shall be in the form of an improved, permanently maintained roadway or open paved area, or any combination thereof, designed, constructed, and at all times maintained, to be clear and unobstructed. Widths, height clearances, ingress and egress shall be adequate for District firefighting equipment. The Fire District, may further prohibit vehicular parking along private accessways in order to keep them clear and unobstructed, and cause notice to that effect to be posted.

##### **D. Hydrants**

Hydrants located along private, accessways shall either have curbs painted yellow or otherwise marked prohibiting parking for a distance of at least fifteen (15) feet in either direction, or where curbs do not exist, markings shall be painted on the pavement, or signs erected, or both, given notice that parking is prohibited for at least fifteen (15) feet in either direction.

#### **16.116.030 Miscellaneous Requirements**

##### **A. Timing of Installation**

When fire protection facilities are required, such facilities shall be installed and made serviceable prior to or at the time any combustible construction begins on the land unless, in the opinion of the Fire District, the nature or circumstances of said construction makes immediate installation impractical.

##### **B. Maintenance of Facilities**

All on-site fire protection facilities, shall be maintained in good working order. The Fire District may conduct periodic tests and inspection of fire protection and may order the necessary repairs or changes be made within ten (10) days.

### **C. Modification of Facilities**

**On-site fire protection facilities, may be altered or repaired with the consent of the Fire District; provided that such alteration or repairs shall be carried out in conformity with the provisions of this Chapter.**

**STAFF ANALYSIS:** As designed, the Middlebrook subdivision is planned with new lots within 500 feet from of a fire hydrant. The planned subdivision does not include any private streets.

**FINDING:** The applicant will be able to meet all applicable criteria in this section as conditioned above. The applicant will need to address and satisfy all requirements in the Deputy Fire Marshall's letter dated, February 1, 2019, as shown in Exhibit E.

## **CHAPTER 16.118 - PUBLIC AND PRIVATE UTILITIES**

### **16.118.010 - Purpose**

**Public telecommunication conduits as well as conduits for franchise utilities including, but not limited to, electric power, telephone, natural gas, lighting, and cable television shall be installed to serve all newly created lots and developments in Sherwood.**

### **16.118.020 - Standard**

- A. Installation of utilities shall be provided in public utility easements and shall be sized, constructed, located and installed consistent with this Code, Chapter 7 of the Community Development Code, and applicable utility company and City standards.**
- B. Public utility easements shall be a minimum of eight (8) feet in width unless a reduced width is specifically exempted by the City Engineer. An eight-foot wide public utility easement (PUE) shall be provided on private property along all public street frontages. This standard does not apply to developments within the Old Town Overlay.**
- C. Where necessary, in the judgment of the City Manager or his designee, to provide for orderly development of adjacent properties, public and franchise utilities shall be extended through the site to the edge of adjacent property(ies).**
- D. Franchise utility conduits shall be installed per the utility design and specification standards of the utility agency.**
- E. Public Telecommunication conduits and appurtenances shall be installed per the City of Sherwood telecommunication design standards.**
- F. Exceptions: Installation shall not be required if the development does not require any other street improvements. In those instances, the developer shall pay a fee in lieu that will finance installation when street or utility improvements in that location occur.**

**FINDING:** As shown on Sheet P07B, Preliminary Subdivision Plat Plan of Exhibit A.2, all planned lots are provided with an 8-foot wide public utility easement along the adjacent street frontage. This utility easement is intended to provide adequate area for franchise utilities. To satisfy the standards in this section the following conditions are recommended.

**RECOMMENDED CONDITION:** (G3) Prior to Final Acceptance of Public Improvements, the developer shall dedicate a minimum 8-foot wide PUE along all street frontages unless otherwise approved by the City Engineer.

**RECOMMENDED CONDITION:** (G4) Prior to Final Acceptance of Public Improvements, Sherwood Broadband utilities (vaults and conduits) shall be installed along the subject property's frontage per requirements set forth in City Ordinance 2005-017 and City Resolution 2005-074.

### **16.118.030 Underground Facilities**



Except as otherwise provided, all utility facilities, including but not limited to, electric power, telephone, natural gas, lighting, cable television, and telecommunication cable, shall be placed underground, unless specifically authorized for above ground installation, because the points of connection to existing utilities make underground installation impractical, or for other reasons deemed acceptable by the City.

**STAFF ANALYSIS:** Per City Engineering, all new utilities and existing utilities along the subject property's frontage of SW Brookman Road shall be placed underground per City of Sherwood standards. Underground facilities was previously addressed and conditioned (E12) above in the staff report. This criterion is met.

#### **16.118.040 Exceptions**

Surface-mounted transformers, surface-mounted connection boxes and meter cabinets, temporary utility service facilities during construction, high capacity electric and communication feeder lines, and utility transmission lines operating at fifty thousand (50,000) volts or more may be located above ground. The City reserves the right to approve location of all surface-mounted transformers.

**STAFF ANALYSIS:** This criterion is not applicable, as no exception is being proposed.

#### **16.118.050 Private Streets**

The construction of new private streets, serving single-family residential developments shall be prohibited unless it provides principal access to two or fewer residential lots or parcels i.e. flag lots. Provisions shall be made to assure private responsibility for future access and maintenance through recorded easements. Unless otherwise specifically authorized, a private street shall comply with the same standards as a public street identified in the Community Development Code and the Transportation System Plan. A private street shall be distinguished from public streets and reservations or restrictions relating to the private street shall be described in land division documents and deed records. A private street shall also be signed differently from public streets and include the words "Private Street".

**STAFF ANALYSIS:** Private streets are not included in this application; therefore, this criterion is not applicable.

### **D. Division VIII: ENVIRONMENTAL RESOURCES**

#### **CHAPTER 16.142 PARKS, TREES, AND OPEN SPACE**

##### **16.142.010 Purpose**

This Chapter is intended to assure the provision of a system of public and private recreation and open space areas and facilities consistent with this Code and applicable portions of Chapter 5 of the Community Development Plan Part 2. The standards of this section do not supersede the open space requirements of a Planned Unit Development, found in Chapter 16.40 - Planned Unit Development (PUD).

##### **16.142.030 Single-Family or Duplex Residential Subdivisions**

- A. A minimum of five percent (5%) of the net buildable site (after exclusion of public right-of-way and environmentally constrained areas) shall be maintained as "open space". Open space must include usable areas such as public parks, swimming and wading**

pools, grass areas for picnics and recreational play, walking paths, and other like space. The following may not be used to calculate open space:

1. Required yards or setbacks.
  2. Required visual corridors.
  3. Required sensitive areas and buffers.
  4. Any area required to meet a standard found elsewhere in this code.
- B. Enhanced streetscapes such as "boulevard treatments" in excess of the minimum public street requirements may count toward a maximum of 10,000 square feet of the open space requirement.
1. Example: if a 52-foot-wide right-of-way [ROW] is required for a 1,000-foot-long street and a 62-foot wide ROW with 5-foot additional plantings/meandering pathway is provided on each side of the street, the additional 10-foot-wide area x 1,000 linear feet, or 10,000 square feet, counts toward the open space requirement.
- C. The open space shall be conveyed in accordance with one of the following methods:
1. By dedication to the City as public open space (if acceptable to the City). Open space proposed for dedication to the City must be acceptable to the City Manager or the Manager's designee with regard to the size, shape, location, improvement, environmental condition, and budgetary and maintenance abilities;
  2. By leasing or conveying title (including beneficial ownership) to a corporation, homeowners' association or other legal entity, with the City retaining the development rights to the open space. The terms of such lease or other instrument of conveyance must include provisions (e.g., maintenance, property tax payment, etc.) suitable to the City.
- D. The density of a single-family residential subdivision shall be calculated based on the net buildable site prior to exclusion of open space per this Section.
1. Example: a 40,000 square foot net buildable site would be required to maintain 2,000 square feet (5%) of open space but would calculate density based on 40,000 square feet.
- E. If a proposed residential subdivision contains or is adjacent to a site identified as "parks" on the Acquisition Map of the Parks Master Plan (2006) or has been identified for acquisition by the Sherwood Parks and Recreation Board, establishment of open space shall occur in the designated areas if the subdivision contains the park site, or immediately adjacent to the parks site if the subdivision is adjacent to it.
- F. If the proposed residential subdivision does not contain or is not adjacent to a site identified on the Parks Master Plan map or otherwise identified for acquisition by the Parks and Recreation Board, the applicant may elect to convey off-site park/open space.
- G. This standard does not apply to a residential partition provided that a development may not use phasing or series partitions to avoid the minimum open space requirement. A partition of land that was part of an approved partition within the previous five (5) years shall be required to provide the minimum five percent (5%) open space in accordance with subsection (A) above.
- H. The value of the open space conveyed under Subsection (A) above may be eligible for Parks System Development Charges (SDCs) credits based on the methodology identified in the most current Parks and Recreation System Development Charges Methodology Report.

**STAFF ANALYSIS:** Based on Sheet P07B of Exhibit A.2, the net buildable area for the site is ±1,038,813 square feet and the required 5 percent open space would be 1.19 acres. The

proposed Open Spaces, Tracts B, F, G, and H, equals 2.91 acres providing over 12 percent of open space exceeding the five percent requirement.

Furthermore, the applicant is providing additional open spaces through Tracts C, D, and E natural resources equating to 5.57 acres of additional open space.

Per applicant's narrative, the largest tract (Tract B - 1.85 acres), is planned as a park, consistent with the Brookman Addition Concept Plan. Tract F is planned as a smaller open space area at the entrance to the subdivision. Tracts G and H include pedestrian paths as well as open space adjacent to, but outside of, the natural resource areas.

Tracts B, C, D, E, F, G, and H open space areas will be dedicated to the homeowners' association for maintenance, preservation and management. The tracts will be developed by the applicant as part of the subdivision site development. City and CWS may require access easements over Tracts C, D, and E Natural Resources.

The applicant proposes that the open spaces be monitored through a homeowner's association and developed as conditioned within the CC&R's. This is a suitable resolution, but a condition of approval is required in order to comply.

**FINDING:** Based on the above discussion, the applicant does not meet this criterion, but can do so with the following conditions.

**RECOMMENDED CONDITION:** (A14) Tracts "B", "C", "D", "E", "F", "G", and "H" shall be owned and maintained by the homeowners' association.

**RECOMMENDED CONDITION:** (B7) Prior to the final plat approval, provide CC&R's that document how the open spaces (Tracts "B", "C", "D", "E", "F", "G", and "H") will be maintained by the neighborhood association.

**RECOMMENDED CONDITION:** (B8) Prior to the final plat approval, provide access easements over Tracts "C", "D", and "E" Natural Resources for be benefit of CWS and City of Sherwood.

### 16.142.040 Visual Corridors

#### A. Corridors Required

**New developments located outside of the Old Town Overlay with frontage on Highway 99W, or arterial or collector streets designated on Figure 8-1 of the Transportation System Plan shall be required to establish a landscaped visual corridor according to the following standards:**

	Category	Width
1.	Highway 99W	25 feet
2.	Arterial	15 feet
3.	Collector	10 feet

**In residential developments where fences are typically desired adjoining the above described major street the corridor may be placed in the road right-of-way between the property line and the sidewalk. In all other developments, the visual corridor shall be on private property adjacent to the right-of-way.**

## **B. Landscape Materials**

The required visual corridor areas shall be planted as specified by the review authority to provide a continuous visual and/or acoustical buffer between major streets and developed uses. Except as provided for above, fences and walls shall not be substituted for landscaping within the visual corridor. Uniformly planted, drought resistant street trees and ground cover, as specified in Section 16.142.060, shall be planted in the corridor by the developer. The improvements shall be included in the compliance agreement. In no case shall trees be removed from the required visual corridor.

## **C. Establishment and Maintenance**

Designated visual corridors shall be established as a portion of landscaping requirements pursuant to Chapter 16.92. To assure continuous maintenance of the visual corridors, the review authority may require that the development rights to the corridor areas be dedicated to the City or that restrictive covenants be recorded prior to the issuance of a building permit.

**STAFF ANALYSIS:** SW Brookman Road is classified as an Arterial and therefore, a 15-foot landscaped visual corridor is required. The proposal includes a stormwater facility (Tract A) and an open space area (Tract F) both adjacent to SW Brookman Road. As identified in the Preliminary Subdivision Plat, Sheet P07B of Exhibit A.2, the visual corridor will be measured from the back of the sidewalk in the right-of-way into the site.

The Preliminary Landscape, Trees and Open Space Plan, Sheet P22 of Exhibit A.1 is outdated, due to the new site plan proposal with access off of White Oak Terrace. A revised landscape plan will be required showing the revised visual corridor based on Sheet P07B Preliminary Subdivision Plat of Exhibit A.2.

Per applicant narrative, the landscaped visual corridor can be maintained by a Home Owner's Association (HOA) and implemented through CC&R's. These standard could be met as conditioned below.

**FINDING:** As discussed above, the standards are not met, but can be satisfied as conditioned below.

**RECOMMENDED CONDITION:** (B9) Prior to final plat approval, submit verification of perpetual maintenance of the landscaped visual corridor through evidence of a homeowners' association being established with authority to assess funds to ensure maintenance or another acceptable means.

**RECOMMENDED CONDITION:** (F5) Prior to issuance of any building permits, install the landscaped visual corridor or bond for the installation of improvements per revised approved Landscape, Tree and Open Space Plan.

**RECOMMENDED CONDITION:** (B10) Prior to final plat approval, provide revised plans that show the cross section and landscape plans including the specific planting materials to be installed within the visual corridors along SW Brookman Road meeting the standards of Section 16.142.040.

**RECOMMENDED CONDITION:** (H8) Prior to Grant of Occupancy, install the visual corridor landscaping per the landscape plans submitted during final plat review.

#### **D. Required Yard**

Visual corridors may be established in required yards, except that where the required visual corridor width exceeds the required yard width, the visual corridor requirement shall take precedence. In no case shall buildings be sited within the required visual corridor, with the exception of front porches on townhomes, as permitted in Section 16.44.010(E)(4)(c).

**STAFF ANALYSIS:** The 15-foot visual corridor is located adjacent to the subject site and is not in a required yard. This criterion does not apply.

**E. Pacific Highway 99W Visual Corridor** 1. Provide a landscape plan for the highway median paralleling the subject frontage. In order to assure continuity, appropriate plant materials and spacing, the plan shall be coordinated with the City Planning Department and ODOT. 2. Provide a visual corridor landscape plan with a variety of trees and shrubs. Fifty percent (50%) of the visual corridor plant materials shall consist of groupings of at least five (5) native evergreen trees a minimum of ten (10) feet in height each, spaced no less than fifty (50) feet apart, if feasible. Deciduous trees shall be a minimum of four (4) inches DBH and twelve (12) feet high, spaced no less than twenty-five (25) feet apart, if feasible.

**FINDING:** This criterion does not apply as the site does not abut Pacific Highway 99W.

#### **16.142.060 - Street Trees**

##### **A. Installation of Street Trees on New or Redeveloped Property.**

Trees are required to be planted to the following specifications along public streets abutting or within any new development or re-development. Planting of such trees shall be a condition of development approval. The City shall be subject to the same standards for any developments involving City-owned property, or when constructing or reconstructing City streets. After installing street trees, the property owner shall be responsible for maintaining the street trees on the owner's property or within the right-of-way adjacent to the owner's property.

1. **Location:** Trees shall be planted within the planter strip along a newly created or improved streets. In the event that a planter strip is not required or available, the trees shall be planted on private property within the front yard setback area or within public street right-of-way between front property lines and street curb lines or as required by the City.
2. **Size:** Trees shall have a minimum trunk diameter of two (2) caliper inches, which is measured six inches above the soil line, and a minimum height of six (6) feet when planted.
3. **Types:** Developments shall include a variety of street trees. The trees planted shall be chosen from those listed in 16.142.080 of this Code.
4. **Required Street Trees and Spacing:**
  - a. The minimum spacing is based on the maximum canopy spread identified in the recommended street tree list in section 16.142.080 with the intent of providing a continuous canopy without openings between the trees. For example, if a tree has a canopy of forty (40) feet, the spacing between trees is forty (40) feet. If the tree is not on the list, the mature canopy width must be provided to the planning department by a certified arborist.

- b. All new developments shall provide adequate tree planting along all public streets. The number and spacing of trees shall be determined based on the type of tree and the spacing standards described in a. above and considering driveways, street light locations and utility connections. Unless exempt per below, trees shall not be spaced more than forty (40) feet apart in any development.
- c. A new development may exceed the forty-foot spacing requirement under section b. above, under the following circumstances:
  - (1) Installing the tree would interfere with existing utility lines and no substitute tree is appropriate for the site; or
  - (2) There is not adequate space in which to plant a street tree due to driveway or street light locations, vision clearance or utility connections, provided the driveways, street light or utilities could not be reasonably located elsewhere so as to accommodate adequate room for street trees; and
  - (3) The street trees are spaced as close as possible given the site limitations in (1) and (2) above.
  - (4) The location of street trees in an ODOT or Washington County right-of-way may require approval, respectively, by ODOT or Washington County and are subject to the relevant state or county standards.
  - (5) For arterial and collector streets, the City may require planted medians in lieu of paved twelve-foot wide center turning lanes, planted with trees to the specifications of this subsection.

**STAFF ANALYSIS:** The applicant has proposed street trees within the planned subdivision. Per Sheet P22, Preliminary Landscape, Street Trees, and Open Space Plan of Exhibit A.1, the street trees are located within planter strips adjacent to proposed new roadways within the subdivision.

The Preliminary Landscape, Trees and Open Space Plan, Sheet P22 of Exhibit A.1 is outdated, due to the new site plan proposal with access off of White Oak Terrace. A revised landscape plan will be required showing the revised street tree plan based on Sheet P07B Preliminary Subdivision Plat of Exhibit A.2.

**FINDING:** Based on the discussion above, this criterion is not met, but can be satisfied as conditioned below.

**RECOMMENDED CONDITION:** (B11) Prior to final plat approval, provide revised landscape plans that shows street tree plantings meeting the standards of Section 16.142.060.

**B. Removal and Replacement of Street Trees.**

The removal of a street tree shall be limited and in most cases, necessitated by the tree. A person may remove a street tree as provided in this section. The person removing the tree is responsible for all costs of removal and replacement. Street trees less than five (5) inches DBH can be removed by right by the property owner or his or her assigns, provided that they are replaced. A street tree that is removed must be replaced within six (6) months of the removal date.

- 1. Criteria for All Street Tree Removal for trees over five (5) inches DBH. No street tree shall be removed unless it can be found that the tree is:
  - a. Dying, becoming severely diseased, or infested or diseased so as to threaten the health of other trees, or
  - b. Obstructing public ways or sight distance so as to cause a safety hazard, or

- c. Interfering with or damaging public or private utilities, or
  - d. Defined as a nuisance per City nuisance abatement ordinances.
2. Street trees between five (5) and ten (10) inches DBH may be removed if any of the criteria in 1. above are met and a tree removal permit is obtained.
- a. The Tree Removal Permit Process is a Type I land use decision and shall be approved subject to the following criteria:
    - (1) The person requesting removal shall submit a Tree Removal Permit application that identifies the location of the tree, the type of tree to be removed, the proposed replacement and how it qualifies for removal per Section 1. above.
    - (2) The person shall post a sign, provided by the City, adjacent to the tree for ten (10) calendar days prior to removal that provides notice of the removal application and the process to comment on the application.
    - (3) If an objection to the removal is submitted by the City or to the City during the ten (10) calendar day period, an additional evaluation of the tree will be conducted by an arborist to determine whether the tree meets the criteria for street tree removal in Section 1. above. The person requesting the Tree Removal Permit shall be responsible for providing the arborist report and associated costs.
    - (4) Upon completion of the additional evaluation substantiating that the tree warrants removal per Section 1. above or if no objections are received within the ten-day period, the tree removal permit shall be approved.
    - (5) If additional evaluation indicates the tree does not warrant removal, the Tree Removal Permit will be denied.
3. Street trees over ten (10) inches DBH may be removed through a Type I review process subject to the following criteria.
- a. The applicant shall provide a letter from a certified arborist identifying:
    - (1) The tree's condition,
    - (2) How it warrants removal using the criteria listed in Section 1. above, and identifying any reasonable actions that could be taken to allow the retention of the tree.
  - b. The applicant shall provide a statement that describes whether and how the applicant sought assistance from the City, HOA or neighbors to address any issues or actions that would enable the tree to be retained.
  - c. The person shall post a sign, provided by the City, adjacent to the tree for ten (10) calendar days prior to removal that provides notice of the removal application and the process to comment on the application.
  - d. Review of the materials and comments from the public confirm that the tree meets the criteria for removal in Section 1. above.

**STAFF ANALYSIS:** The criteria above (B1-3) are not applicable, as the applicant is not proposing to remove existing street trees.

**A. Homeowner's Association Authorization.**

The Planning Commission may approve a program for the adoption, administration and enforcement by a homeowners' association (HOA) of regulations for the removal and replacement of street trees within the geographic boundaries of the association.

- 1. An HOA that seeks to adopt and administer a street tree program must submit an application to the City. The application must contain substantially the following information:**
  - a. The HOA must be current and active. The HOA should meet at least quarterly and the application should include the minutes from official HOA Board meetings for a period not less than eighteen (18) months (six (6) quarters) prior to the date of the application.**
  - b. The application must include proposed spacing standards for street trees that are substantially similar to the spacing standards set forth in 16.142.060.A above.**
  - c. The application must include proposed street tree removal and replacement standards that are substantially similar to the standards set forth in 16.142.060.B above.**
  - d. The application should include a copy of the HOA bylaws as amended to allow the HOA to exercise authority over street tree removal and replacement, or demonstrate that such an amendment is likely within ninety (90) days of a decision to approve the application.**
  - e. The application should include the signatures of not less than seventy-five (75) percent of the homeowners in the HOA in support of the application.**
- 2. An application for approval of a tree removal and replacement program under this section shall be reviewed by the City through the Type IV land use process. In order to approve the program, the City must determine:**
  - a. The HOA is current and active.**
  - b. The proposed street tree removal and replacement standards are substantially similar to the standards set forth in 16.142.060.B above.**
  - c. The proposed street tree spacing standards are substantially similar to the standards set forth in 16.142.060.A above.**
  - d. The HOA has authority under its bylaws to adopt, administer and enforce the program.**
  - e. The signatures of not less than seventy-five (75) percent of the homeowners in the HOA in support of the application.**
- 3. A decision to approve an application under this section shall include at least the following conditions:**
  - a. Beginning on the first January 1 following approval and on January 1 every two (2) years thereafter, the HOA shall make a report to the city planning department that provides a summary and description of action taken by the HOA under the approved program. Failure to timely submit the report that is not cured within sixty (60) days shall result in the immediate termination of the program.**
  - b. The HOA shall comply with the requirements of Section 12.20 of the Sherwood Municipal Code.**
- 4. The City retains the right to cancel the approved program at any time for failure to substantially comply with the approved standards or otherwise comply with the conditions of approval.**
  - a. If an HOA tree removal program is canceled, future tree removals shall be subject to the provisions of section 16.142.060.**



- b. A decision by the City to terminate an approved street tree program shall not affect the validity of any decisions made by the HOA under the approved program that become final prior to the date the program is terminated.
  - c. If the city amends the spacing standards or the removal and replacement standards in this section (SZCDC 16.142.060) the City may require that the HOA amend the corresponding standards in the approved street tree program.
5. An approved HOA tree removal and replacement program shall be valid for five (5) years; however, the authorization may be extended as approved by the City, through a Type II Land Use Review.

**STAFF ANALYSIS:** The applicant is not proposing a HOA managed street tree removal and replacement program as described above. The street trees are planned to be in the public right-of-way and will be managed by the adjacent property owner.

**D. Exemption from Replacing Street Trees.**

A street tree that was planted in compliance with the Code in effect on the date planted and no longer required by spacing standards of section A.4. above may be removed without replacement provided:

- 1. Exemption is granted at the time of street tree removal permit or authorized homeowner's association removal per Section 16.142.060.C. above.
- 2. The property owner provides a letter from a certified arborist stating that the tree must be removed due to a reason identified in the tree removal criteria listed in Section 16.142.060. B.1. above, and
- 3. The letter describes why the tree cannot be replaced without causing continued or additional damage to public or private utilities that could not be prevented through reasonable maintenance.

**E. Notwithstanding any other provision in this section, the city manager or the manager's designee may authorize the removal of a street tree in an emergency situation without a tree removal permit when the tree poses an immediate threat to life, property or utilities. A decision to remove a street tree under this section is subject to review only as provided in ORS 34.100.**

**F. Trees on Private Property Causing Damage.**

Any tree, woodland or any other vegetation located on private property, regardless of species or size, that interferes with or damages public streets or utilities, or causes an unwarranted increase in the maintenance costs of same, may be ordered removed or cut by the City Manager or his or her designee. Any order for the removal or cutting of such trees, woodlands or other vegetation, shall be made and reviewed under the applicable City nuisance abatement ordinances.

**G. Penalties.** The abuse, destruction, defacing, cutting, removal, mutilation or other misuse of any tree planted on public property or along a public street as per this Section, shall be subject to the penalties defined by Section 16.02.040, and other penalties defined by applicable ordinances and statutes, provided that each tree so abused shall be deemed a separate offense.

**STAFF ANALYSIS:** As stated above, this application does not include the removal of street trees for any of the reasons listed above, these criteria do not apply.

## **16.142.070 Trees on Property Subject to Certain Land Use Applications**

### **A. Generally**

The purpose of this Section is to establish processes and standards which will minimize cutting or destruction of trees and woodlands within the City. This Section is intended to help protect the scenic beauty of the City; to retain a livable environment through the beneficial effect of trees on air pollution, heat and glare, sound, water quality, and surface water and erosion control; to encourage the retention and planting of tree species native to the Willamette Valley and Western Oregon; to provide an attractive visual contrast to the urban environment, and to sustain a wide variety and distribution of viable trees and woodlands in the community over time.

### **B. Applicability**

All applications including a Type II - IV land use review, shall be required to preserve trees or woodlands, as defined by this Section to the maximum extent feasible within the context of the proposed land use plan and relative to other codes, policies, and standards of the City Comprehensive Plan.

**STAFF ANALYSIS:** The proposed subdivision is a Type IV land use review. Therefore, the criteria of this section apply.

### **C. Inventory**

1. To assist the City in making its determinations on the retention of trees and woodlands, land use applications including Type II - IV development shall include a tree and woodland inventory and report. The report shall be prepared by a qualified professional and must contain the following information:
  - a. Tree size (in DBH and canopy area)
  - b. Tree species
  - c. The condition of the tree with notes as applicable explaining the assessment
  - d. The location of the tree on the site
  - e. The location of the tree relative to the planned improvements
  - f. Assessment of whether the tree must be removed to accommodate the development
  - g. Recommendations on measures that must be taken to preserve trees during the construction that are not proposed to be removed.
2. In addition to the general requirements of this Section, the tree and woodland Inventory's mapping and report shall also include, but is not limited to, the specific information outlined in the appropriate land use application materials packet.
3. Definitions for the inventory purposes of this Section
  - a. A tree is a living woody plant having a trunk diameter as specified below at Diameter at Breast Height (DBH). Trees planted for commercial agricultural purposes, and/or those subject to farm forest deferral, such as nut and fruit orchards and Christmas tree farms, are excluded from this definition and from regulation under this Section, as are any living woody plants under six (6) inches at DBH. All trees six (6) inches or greater shall be inventoried.

- b. A woodland is a biological community dominated by trees covering a land area of 20,000 square feet or greater at a density of at least fifty (50) trees per every 20,000 square feet with at least fifty percent (50%) of those trees of any species having a six (6) inches or greater at DBH. Woodlands planted for commercial agricultural purposes and/or subject to farm forest deferral, such as nut and fruit orchards and Christmas tree farms, are excluded from this definition, and from regulation under this Section.
- c. A large stature tree is over 20 feet tall and wide with a minimum trunk diameter of 30 inches at DBH.

**STAFF ANALYSIS:** The applicant provided Preliminary Tree Preservation and Removal Plans, Sheets P09-P11 of Exhibit A.1 and a Tree Inventory (applicants' Exhibit K of Exhibit A.1). The plans and inventory includes the required information listed above.

The Preliminary Tree Preservation and Removal Plan, Sheet P09-P11 of Exhibit A.1 are outdated, due to the new site plan proposal with access off of White Oak Terrace. Revised Preliminary Tree Preservation and Removal Plans will be required based on the new street layout identified in Sheet P07B Preliminary Subdivision Plat of Exhibit A.2.

**FINDING:** Based on the discussion above, this criterion is not met, but can be satisfied as conditioned below.

**RECOMMENDED CONDITION:** (B12) Prior to final plat approval, provide revised Tree Preservation and Removal plans that meets the standards of Section 16.142.

#### **D. Retention requirements**

- 1. **Trees may be considered for removal to accommodate the development including buildings, parking, walkways, grading etc., provided the development satisfies of D.2 or D.3, below.**

**STAFF ANALYSIS:** The applicant provided Preliminary Tree Preservation and Removal Plans, Sheets P09-P11 of Exhibit A.1 and a Tree Inventory (applicants' Exhibit K of Exhibit A.1). Per applicants' narrative there are numerous trees on the subject site and the removal of trees are necessary to accommodate the required site improvements, including utility installation, earthwork, and grading necessary for street construction, proper drainage, and future home construction.

- 2. **Required Tree Canopy - Residential Developments (Single Family Attached, Single Family Detached and Two - Family)**

**Each net development site shall provide a variety of trees to achieve a minimum total tree canopy of 40 percent. The canopy percentage is based on the expected mature canopy of each tree by using the equation  $\pi r^2$  to calculate the expected square footage of canopy for each tree. The expected mature canopy is counted for each tree regardless of an overlap of multiple tree canopies.**

**The canopy requirement can be achieved by retaining existing trees or planting new trees. Required street trees can be used toward the total on site canopy required to meet this standard. The expected mature canopy spread of the new trees will be counted toward the needed canopy cover. A certified arborist or other qualified professional shall provide the estimated tree canopy of the proposed trees to the planning department for review.**

**STAFF ANALYSIS:** The Preliminary Landscape, Street tree and Open Space Plan, Sheet P22 of Exhibit A.1 demonstrates that at least 40 percent canopy coverage of the net development site is

provided. The applicant proposes new planted tree canopy area of ±181,365 square feet and existing tree canopy area of ±730,232 square feet. The 40 percent minimum tree canopy coverage based on ±23.86 acres is ±415,781. The applicant is proposing ±911,597 square feet or 88 percent tree canopy coverage exceeding the minimum requirement.

**FINDING:** Based on the discussion above, this standard is satisfied.

### **3. Required Tree Canopy Non-Residential and Multi-Family Developments**

**STAFF ANALYSIS:** This criterion does not apply.

- 4. The City may determine that, regardless of D.1 through D.3, that certain trees or woodlands may be required to be retained. The basis for such a decision shall include; specific findings that retention of said trees or woodlands furthers the purposes and goals of this Section, is feasible and practical both within the context of the proposed land use plan and relative to other policies and standards of the City Comprehensive Plan, and are:**
  - a. Within a Significant Natural Area, 100-year floodplain, City greenway, jurisdictional wetland or other existing or future public park or natural area designated by the City Comprehensive Plan, or**
  - b. A landscape or natural feature as per applicable policies of the City Comprehensive Plan, or are necessary to keep other identified trees or woodlands on or near the site from being damaged or destroyed due to windfall, erosion, disease or other natural processes, or**
  - c. Necessary for soil stability and the control of erosion, for managing and preserving surface or groundwater quantities or quality, or for the maintenance of a natural drainageway, as per Clean Water Services stormwater management plans and standards of the City Comprehensive Plan, or**
  - d. Necessary in required buffers between otherwise incompatible land uses, or from natural areas, wetlands and greenways, or**
  - e. Otherwise merit retention because of unusual size, size of the tree stand, historic association or species type, habitat or wildlife preservation considerations, or some combination thereof, as determined by the City.**

**APPLICANT'S RESPONSE:** The site includes jurisdictional wetlands, open space, and natural areas to be retained. The trees within the natural resource areas (Tracts C, D, E) are planned to be protected and retained. Many of the trees in the areas outside of the planned pedestrian pathways in open space Tracts G and H will also be protected and retained. As described in the Natural Resource Assessment (applicant's Exhibit G) and the Department of State Lands Wetland Delineation Concurrence Letter (applicant's Exhibit I), there are five designated wetlands on the site. The two smaller wetlands are planned to be filled and do not include trees or woodland areas. The larger three wetlands are planned to be retained and protected within the natural resource area tracts.

The application includes a Preliminary Tree Preservation and Removal Plan (in Exhibit A.1) and a Preliminary Stormwater Report (applicant's Exhibit E). Tree removal and preservation and stormwater management measures are illustrated and described therein.

The Brookman Addition Concept Plan identified areas where natural resources are present. The application includes a detailed Natural Resource Assessment (applicant's Exhibit G). To the extent these mapped areas exist within the boundary of the subject site, the application is consistent with the Concept Plan. Trees within these areas are retained as shown in the Preliminary Plans.

**STAFF ANALYSIS:** Staff concurs with the applicant's statement above.

**FINDING:** Based on the above discussion, the criteria are met.

5. **Tree retention requirements for properties located within the Old Town Overlay or projects subject to the infill standards of Chapter 16.68 are only subject to retention requirements identified in D.4. above.**

## **S**

**STAFF ANALYSIS:** This criterion does not apply, as the site is not located in the Old Town Overlay area.

6. **The Notice of Decision issued for the land use applications subject to this Section shall indicate which trees and woodlands will be retained as per subsection D of this Section, which may be removed or shall be retained as per subsection D of this Section and any limitations or conditions attached thereto.**

**STAFF ANALYSIS:** This criterion is not applicable at this time of this review, however, the Notice of Decision issued shall indicate which trees will be removed and retained.

7. **All trees, woodlands, and vegetation located on any private property accepted for dedication to the City for public parks and open space, greenways, Significant Natural Areas, wetlands, floodplains, or for storm water management or for other purposes, as a condition of a land use approval, shall be retained outright, irrespective of size, species, condition or other factors. Removal of any such trees, woodlands, and vegetation prior to actual dedication of the property to the City shall be cause for reconsideration of the land use plan approval.**

**STAFF ANALYSIS:** Per applicant's narrative, the applicant is aware of the City's authority to restrict tree removal in the manner described above.

## **E. Tree Preservation Incentive**

### **F. Additional Preservation Incentives**

**STAFF ANALYSIS:** Per applicant's narrative, the applicant is not pursuing any of the above-listed incentives. The criteria do not apply.

## **G. Tree Protection During Development**

**STAFF ANALYSIS:** The applicant provided a Preliminary Tree Preservation and Removal Plan, Sheets P09-P11 pursuant to 16.142.070G. Revised Preliminary Tree Preservation and Removal Plans are required as conditioned in B12.

## **H. Penalties**

**Violations of this Section shall be subject to the penalties defined by Section 16.02.040, provided that each designated tree or woodland unlawfully removed or cut shall be deemed a separate offense.**

**STAFF ANALYSIS:** Per applicant's narrative, the applicant is aware of the penalty for the unlawful removal of trees protected by this ordinance.

## **Chapter 16.144 - WETLAND, HABITAT AND NATURAL AREAS**

### **16.144.010 - Generally**

**Unless otherwise permitted, residential, commercial, industrial, and institutional uses in the City shall comply with the following wetland, habitat and natural area standards if applicable to the site as identified on the City's Wetland Inventory, the Comprehensive Plan Natural Resource Inventory, the Regionally Significant Fish and Wildlife Habitat Area map adopted by Metro, and by reference into this Code and the Comprehensive Plan. Where the applicability of a standard overlaps, the more stringent regulation shall apply.**

**STAFF ANALYSIS:** The applicant provided a Natural Resource Assessment, applicant's Exhibit G of Exhibit A.1, that identifies and describes the significance of on-site wetlands as well as the limited impacts and significant restoration that is included as part of the subdivision application. There are no other sensitive habitat or natural areas identified on the site or within 50-feet of the site. The proposed shift of the access to SW Brookman Road as shown in Exhibit A.2 does not impact the areas planned to be retained in the natural resource and open space areas.

### **16.144.020 - Standards**

- A. The applicant shall identify and describe the significance and functional value of wetlands on the site and protect those wetlands from adverse effects of the development. A facility complies with this standard if it complies with the criteria of subsections A.1.a and A.1.b, below:**
- 1. The facility will not reduce the area of wetlands on the site, and development will be separated from such wetlands by an area determined by the Clean Water Services Design and Construction Standards R&O 00-7 or its replacement provided Section 16.140.090 does not require more than the requested setback.**
    - a. A natural condition such as topography, soil, vegetation or other feature isolates the area of development from the wetland.**

**STAFF ANALYSIS:** The wetlands planned to be retained, as described in the Natural Resource Assessment (applicant's Exhibit G), the Clean Water Services – Service Provider Letter (applicant's Exhibit H), and the Department of State Lands Wetland Delineation Concurrence Letter (applicant's Exhibit I), are provided with 50-foot vegetated corridors that buffer the wetlands from the planned onsite improvements.

- b. Impact mitigation measures will be designed, implemented, and monitored to provide effective protection against harm to the wetland from sedimentation, erosion, loss of surface or ground water supply, or physical trespass.**

**STAFF ANALYSIS:** As described in the Clean Water Services Service Provider Letter (applicant's Exhibit H), the planned on-site improvements are subject to mitigation measures to protect water quality according to Clean Water Services standards.

- c. A lesser setback complies with federal and state permits, or standards that will apply to state and federal permits, if required.**

**STAFF ANALYSIS:** As described in the Service Provider letter from Clean Water Services (applicant's Exhibit H), authorization from the appropriate state and federal agencies is required.

- 2. If existing wetlands are proposed to be eliminated by the facility, the applicant shall demonstrate that the project can, and will develop or enhance an area of wetland on the site or in the same drainage basin that is at least equal to the area and functional value of wetlands eliminated.**

**STAFF ANALYSIS:** The Service Provider Letter from Clean Water Services (applicant's Exhibit H) outlines the planned encroachment areas and required mitigation.

- B. The applicant shall provide appropriate plans and text that identify and describe the significance and functional value of natural features on the site (if identified in the Community Development Plan, Part 2) and protect those features from impacts of the development or mitigate adverse effects that will occur. A facility complies with this standard if:**

**STAFF ANALYSIS:** The Brookman Addition Concept Plan, adopted in 2009, identified areas where natural resources are present. The applicant included a detailed Natural Resource Assessment (applicant's Exhibit G) which describes the extent of the natural resources, the limited impacts of planned site improvements and significant restoration.

- 1. The site does not contain an endangered or threatened plant or animal species or a critical habitat for such species identified by Federal or State government (and does not contain significant natural features identified in the Community Development Plan, Part 2, Natural Resources and Recreation Plan).**

**STAFF ANALYSIS:** Based on the Natural Resource Assessment (applicant's Exhibit G), endangered or threatened plant or animal species or critical habitat were not identified on the site. This criterion does not apply.

- 2. The facility will comply with applicable requirements of the zone.**

**STAFF ANALYSIS:** The proposed subdivision application complies with applicable requirements of the Medium Density Residential Low and Medium Density Residential High zones. This standard is met.

- 3. The applicant will excavate and store topsoil separate from subsurface soil, and shall replace the topsoil over disturbed areas of the site not covered by buildings or pavement or provide other appropriate medium for re-vegetation of those areas, such as yard debris compost.**

**STAFF ANALYSIS:** Based on the preliminary plans and Natural Resource Assessment, the majority of the identified natural resource areas are planned to be retained and protected from disturbance. The disturbed areas will be mitigated according to the Clean Water Services Service Provider Letter (applicant's Exhibit H). The criterion does not apply.

- 4. The applicant will retain significant vegetation in areas that will not be covered by buildings or pavement or disturbed by excavation for the facility; will replant areas disturbed by the development and not covered by buildings or pavement with native species vegetation unless other vegetation is needed to buffer the facility; will protect disturbed areas and adjoining habitat from potential erosion until**

**replanted vegetation is established; and will provide a plan or plans identifying each area and its proposed use.**

**STAFF ANALYSIS:** The submitted preliminary plans show areas with significant vegetation are planned to be retained in the natural resource and open space areas. The Preliminary Landscape, Street Tree and Open Space Plan of Exhibit A.1 shows the existing and planned plantings throughout the site. The Grading, Erosion and Sediment Control Plan of Exhibit A.1 shows the location of sediment control and tree protection fencing.

- 5. Development associated with the facility will be set back from the edge of a significant natural area by an area determined by the Clean Water Services Design and Construction standards R&O 00-7 or its replacement, provided Section 16.140.090A does not require more than the requested setback. Lack of adverse effect can be demonstrated by showing the same sort of evidence as in subsection A.1 above.**

**STAFF ANALYSIS:** The wetlands planned to be retained, as described in the Natural Resource Assessment (applicant's Exhibit G) and Clean Water Services Service Provider letter (applicant's Exhibit H), are provided with 50-foot vegetated corridors that buffer the wetlands from the planned on-site improvements.

- C. When the Regionally Significant Fish and Wildlife Habitat map indicates there are resources on the site or within 50 feet of the site, the applicant shall provide plans that show the location of resources on the property. If resources are determined to be located on the property, the plans shall show the value of environmentally sensitive areas using the methodologies described in Sections 1 and 2 below...**

**STAFF ANALYSIS:** The submitted Natural Resource Assessment (applicant's Exhibit G) identifies and describes the natural resources on the site. The Assessment identified five jurisdictional wetlands and no other environmentally sensitive areas. Cedar Creek and its associated wetlands are located at least 50 feet from the site. Therefore, there are no "Regionally Significant Fish and Wildlife Habitat" areas on the site or within 50 feet of the site. Therefore, the criteria do not apply.

#### **16.144.030 - Exceptions to Standards**

**In order to protect environmentally sensitive areas that are not also governed by floodplain, wetland and Clean Water Services vegetated corridor regulations, the City allows flexibility of the specific standards in exchange for the specified amount of protection inventoried environmentally sensitive areas as defined in this code.**

##### **A. Process**

**The flexibility of standards is only applicable when reviewed and approved as part of a land use application and shall require no additional fee or permit provided criteria is addressed. In the absence of a land use application, review may be processed as a Type 1 administrative interpretation.**

##### **B. Standards modified**

- 1. Lot size — Notwithstanding density transfers permitted through Chapter 16.40, when a development contains inventoried regionally significant fish and wildlife habitats as defined in Section 16.144.020 above, lot sizes may be reduced up to ten percent (10%) below the minimum lot size of the zone when an equal amount of inventoried resource above and beyond that already required to be protected is held in a public or private open space tract or otherwise protected from further development.**



2. **Setbacks** — For residential zones, the setback may be reduced up to thirty percent (30%) for all setbacks except the garage setback provided the following criteria are satisfied:
  - a. The setback reduction must result in an equal or greater amount of significant fish and/or wildlife habitat protection. Protection shall be guaranteed with deed restrictions or public or private tracts.
  - b. In no case shall the setback reduction supersede building code and/or Tualatin Valley Fire and Rescue separation requirements.
  - c. In no case shall the setback be reduced to less than five feet unless otherwise provided for by the underlying zone.
3. **Density** — per Section 16.10.020 (Net Buildable Acre definition), properties with environmentally sensitive areas on site may opt to exclude the environmentally sensitive areas from the minimum density requirements provided the sensitive areas are protected via tract or restrictive easement. A proposal to remove said area from the density calculation must include: a delineation of the resource in accordance with Section 16.144.020C, the acreage being protected, and the net reduction below the normally required minimum for accurate reporting to Metro.
4. **Parking** — Per Section 16.94.020.B.6, 10-25% of the required parking spaces may be reduced in order to protect inventoried regionally significant fish and wildlife habitat areas, provided these resources are protected via deed restrictions or held in public or private tracts.
5. **Landscaping** — Per Section 16.92.030.B.6, exceptions may be granted to the landscaping standards in certain circumstances as outlined in that section.

**STAFF ANALYSIS:** The proposal does not include exceptions to the applicable code standards listed above. The criteria do not apply.

**GENERAL WETLAND STAFF ANALYSIS:** The proposed development has received a Wetland Delineation/Determination Concurrence Letter issued by the State of Oregon Department of State Lands (WD# 2018-0275 applicant's Exhibit I of Exhibit A.1).

No permit or joint permits from USACE, DSL, NMSF, etc. have been submitted with this application. If needed, all necessary permit(s) from outside jurisdictional agencies will need to be obtained and submitted before an Engineering Compliance Agreement is issued for this project.

**FINDINGS:** Based on the above discussion, the standards can be met as conditioned below.

**RECOMMENDED CONDITION:** (E24) Prior to Final Approval of Engineering Plans, the applicant shall conform with all the requirements and conditions listed in the State of Oregon Department of State Lands, Wetland Delineation/Determination Concurrence Letter (WD# 2018-0275, dated June 27, 2018).

**RECOMMENDED CONDITION:** (C5) Prior to Issuance of an Engineering Compliance Agreement, the applicant shall obtain and submit to City engineering any necessary permit(s) required by United States Army Corp of Engineers (USACE), National Marine Fisheries Services (NMFS), or State of Oregon Division of State Lands (DSL) for the proposed project, those requirements and conditions shall become part of the final project approval and acceptance.

**RECOMMENDED CONDITION:** (G5) Prior to Acceptance of Public Improvements, the applicant shall have complied with all the requirements and conditions of permit(s) issued by City, CWS, DSL, USACE, and/or NMFS.

## **16.145 ENERGY CONSERVATION**

### **16.156.010 - Purpose**

This Chapter and applicable portions of Chapter 5 of the Community Development Plan provide for natural heating and cooling opportunities in new development. The requirements of this Chapter shall not result in development exceeding allowable densities or lot coverage, or the destruction of existing trees.

### **16.156.020 - Standards**

- A. Building Orientation** - The maximum number of buildings feasible shall receive sunlight sufficient for using solar energy systems for space, water or industrial process heating or cooling. Buildings and vegetation shall be sited with respect to each other and the topography of the site so that unobstructed sunlight reaches the south wall of the greatest possible number of buildings between the hours of 9:00 AM and 3:00 PM, Pacific Standard Time on December 21st.

**STAFF ANALYSIS:** The proposed street run east-west allowing lots to face north or south and maximizing the unshaded exposure of the south sides of homes. This criterion is met.

- B. Wind** - The cooling effects of prevailing summer breezes and shading vegetation shall be accounted for in site design. The extent solar access to adjacent sites is not impaired vegetation shall be used to moderate prevailing winter wind on the site.

**STAFF ANALYSIS:** Per applicant's narrative, the site design of the planned subdivision as well as mandatory building setbacks will allow for adequate air circulation and cooling. There is adequate room for the addition of vegetation to moderate prevailing winter winds from the south and east. The criterion is met.

### **16.156.030 - Variance to Permit Solar Access**

Variations from zoning district standards relating to height, setback and yard requirements approved as per Chapter 16.84 may be granted by the Commission where necessary for the proper functioning of solar energy systems, or to otherwise preserve solar access on a site or to an adjacent site.

**STAFF ANALYSIS:** The proposal does not include a variance from the applicable standards. This criterion is not applicable.

### STAFF RECOMMENDATION

Based upon review of the applicant's submittal information, review of the code, and public and agency comments, staff finds that the proposed subdivision does not fully comply with the standards but can be conditioned, as follows, to comply. Therefore, staff recommends **approval of the Middlebrook Subdivision application, SUB 18-02, subject to the following conditions.**

## VII. RECOMMENDATION

### A. General Conditions

1. Compliance with the Conditions of Approval is the responsibility of the developer or its successor in interest.
2. Development and construction on the site shall conform substantially to the preliminary plat plans submitted by AKS Engineering and Forestry LLC, dated June 25, 2019, except as modified in the conditions below, (and shall conform specifically to final construction plans reviewed and approved by the City Engineer, the Building Official, Clean Water Services, and Tualatin Valley Fire and Rescue, and Washington County). All plans shall comply with the applicable building, planning, engineering and fire protection codes of the City of Sherwood.
3. The developer is responsible for all costs associated with any remaining public facility improvements and shall assure the construction of all public streets and utilities within and adjacent to the plat as required by these conditions of approval, to the plans, standards, and specifications of the City of Sherwood. The developer shall also provide to the City financial guarantees for construction of all public streets and utilities within and adjacent to the plat, as required by the engineering compliance agreement.
4. **The approval is valid for a period of two (2) years from the date of the signed engineering compliance agreement. The final plat shall be recorded within two years of the date of this decision.** Extensions may be granted by the City as afforded by the Sherwood Zoning and Community Development Code.
5. Placement of construction trailers or temporary storage containers on the subject property shall require a Temporary Use Permit per Section 16.86 of the SZCDC.
6. This approval does not negate the need to obtain permits, as appropriate from other local, state or federal agencies, even if not specifically required by this decision.
7. Retaining walls within public easements or the public right-of-way shall require engineering approval. Retaining walls located on private property that support a surcharge or are over four feet in height measured from the bottom of the footing will require a permit from the Building Department.
8. Sherwood Broadband utilities shall be installed as per requirements set forth in City Ordinance 2005-017 and Resolution 2005-074.
9. All fences within the subdivision shall meet the requirements in Sherwood Zoning and Community Development Code Chapter 16.58.020.
10. The developer shall coordinate the location of mailboxes with the Post Office.
11. Decks, fences, sheds, building additions and other site improvements shall not be located within any easement unless otherwise determined by the City of Sherwood.

12. Restrict and maintain on-site landscaping, utilities, and any other obstructions in the sight distance triangles to provide adequate sight distance at access locations.
13. The applicant shall adhere to all the requirements and conditions listed in the Service Provider Letter issued by CWS (File No. 18-001504).
14. Tracts "B", "C", "D", "E", "F", "G", and "H" shall be owned and maintained by the homeowners' association.

**B. Prior to Approval of Final Subdivision Plat**

1. Prior to final plat approval, submit revised plan set consistent with SW White Oak Terrace new access location.
2. Prior Final Plat approval, submit a revised tree plan demonstrating compliance with the Clear Vision requirements of Section.16.58 of the Sherwood Zoning and Community Development Code.
3. Prior to Final Plat approval, show vision clearance easements on all corner lots. Vision Clearance Easements shall be to the City of Sherwood and conform with Section 16.58.010.
4. Prior to Final Plat Approval, dedication of additional right-of-way to provide 53 feet from the centerline of SW Brookman Road, including adequate corner radius to accommodate a future signal at the public street connection.
5. Prior to Final Plat Approval, the multi-use pedestrian way on SW Brookman Road shall be 12-foot wide.
6. Prior to Final Plat approval, the 20-foot temporary emergency access easement over Map 3S1 06B Tax Lot 200 shall be recorded.
7. Prior to the final plat approval, provide CC&R's that document how the open spaces (Tracts "B", "C", "D", "E", "F", "G", and "H") will be maintained by the neighborhood association.
8. Prior to the final plat approval, provide access easements over Tracts "C", "D", and "E" Natural Resources for be benefit of CWS and City of Sherwood.
9. Prior to final plat approval, submit verification of perpetual maintenance of the landscaped visual corridor through evidence of a homeowners' association being established with authority to assess funds to ensure maintenance or another acceptable means.
10. Prior to final plat approval, provide revised plans that show the cross section and landscape plans including the specific planting materials to be installed within the visual corridors along SW Brookman Road meeting the standards of Section 16.142.040.
11. Prior to final plat approval, provide revised landscape plans that shows street tree plantings meeting the standards of Section 16.142.060.
12. Prior to final plat approval, provide revised Tree Preservation and Removal plans that meets the standards of Section 16.142.
13. Prior to final plat approval, Property Line Adjustment (LLA 18-02) between parcels 3S106B00100 and 3S106B00200 shall be recorded.

**C. Prior to Issuance of City of Sherwood Engineering Compliance Agreement**

1. Prior to Issuance of an Engineering Compliance Agreement, the applicant shall obtain and submit the NPDES 1200C permit issued from CWS for the proposed project, to the City engineering department.

2. Prior to Issuance of Engineering Compliance Agreement, applicant shall pay the City of Sherwood a fee in-lieu of construction amount for the right-turn lane improvement on Hwy 99W at the Brookman Road intersection.
3. Prior to Issuance of Engineering Compliance Agreement, applicant shall submit for and obtain from ODOT a Miscellaneous Permit for working in ODOT right-of-way and, if required, an agreement with ODOT to address transfer of the ownership of the improvement to ODOT.
4. Prior to Issuance of an Engineering Compliance Agreement, applicant shall obtain a Stormwater Connection Permit issued from CWS per Exhibit F.
5. Prior to Issuance of an Engineering Compliance Agreement, the applicant shall obtain and submit to City engineering any necessary permit(s) required by United States Army Corp of Engineers (USACE), National Marine Fisheries Services (NMFS), or State of Oregon Division of State Lands (DSL) for the proposed project, those requirements and conditions shall become part of the final project approval and acceptance.
6. Prior to Issuance of an Engineering Compliance Agreement, final engineering plan approval by the Engineering Department is required.

**D. Prior to Grading Permit**

1. Prior to Issuance of a Site Grading Permit, the applicant shall submit for a Washington County Facility Permit for the public improvements along SW Brookman Road per Exhibit C.1.

**E. Prior to Approval of Engineering Public Improvement Plans**

1. Prior to Final Approval of Engineering Plans, the ESC plan shall adhere to all CWS engineering design standards for presentation of all ESC facilities utilized on the project.
2. Prior to Final Approval of Engineering Plans, applicant shall obtain an NPDES 1200C Permit from CWS and submit it to the Engineering Department. Approved Erosion and Sediment Control construction plans shall show and conform with conditions delineated in the NPDES 1200C permit.
3. The applicant's traffic engineer has presented findings supporting transportation mitigation requirements. Due to jurisdictional agency transportation system planning efforts for the area, in lieu of constructing such improvements at this time the City, Washington County and ODOT agree that Prior to Final Approval of Engineering Plans, the applicant shall pay fee in-lieu-of construction amounts as follows:
  - a. SW Brookman Road - \$109,430 for the right-turn lane onto Hwy 99W. Funds to be deposited into City TDT funds account and dedicated strictly for a future SW Brookman Road/Hwy 99W signalized intersection improvement project. This TDT fee in-lieu-of construction payment shall be treated as 100% credit eligible towards TDT fee assessments on the developments single family residential units.
  - b. SW Woodhaven Drive & SW Sunset Boulevard - \$43,548 for proportionate share of signalized intersection improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Woodhaven Drive & SW Sunset Boulevard signalized intersection improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards City TDT or City Transportation SDC fee assessments on the developments single family residential units.

- c. SW Timbrel Lane & SW Sunset Boulevard - \$33,451 for proportionate share of traffic roundabout improvements. Funds to be deposited into City funds account and dedicated strictly for a future SW Timbrel Lane & SW Sunset Boulevard traffic roundabout improvements project. This fee in-lieu-of construction payment shall be treated as 100% credit eligible towards City TDT or 54% credit eligible towards City Transportation SDC fee assessments on the developments single family residential units.
4. Prior to final engineering plan approval, applicant shall confirm meeting access spacing standards on Brookman Road or provide a signed design exception approval from Washington County.
  5. Prior to Final Approval of Engineering Plans, based on comments and conditions stated in a review comment letter from Naomi Vogel, Associate Planner for WACO Department of Land Use and Transportation, dated June 27, 2019, applicant shall convert the intersection of SW Brookman Road at Hwy 99W to a right-in/right-out only access per County/ODOT standards.
  6. Prior to Final Approval of Engineering Plans, the final design plans shall include the installation of continuous fencing along the property line fronting the rail tracks to ensure the safe operation of trains by preventing illegal trespassing of pedestrians across the tracks.
  7. Prior to Final Approval of Engineering Plans, the street lighting design shall include a photometric analysis report for review and approval by City engineering. Lighting shall be Westbrooke fixtures on all internal streets to the subdivision, with Cobrahead fixtures along the SW Brookman Road right-of-way.
  8. Prior to Final Approval of Engineering Plans, the design of the south right-of-way line of the  $\frac{3}{4}$  street section for SW Trillium Lane vertical alignment shall be such that the differential height (cut or fill) to existing grade south of the right-of-way line is not more than 2-feet.
  9. Prior to Final Approval of Engineering Plans, frontage improvements along the SW Brookman Road right-of-way, shall extend completely from the west property line to the east property line of the development frontage.
  10. Prior to Final Approval of Engineering Plans, the proposed development shall record a 15-foot wide visual corridor easement paralleling and north of the right-of-way dedication occurring along SW Brookman Road.
  11. Prior to Final Approval of Engineering Plans, the applicant shall submit a separate design variation request form for each non-conforming public infrastructure design element, to the City Engineer for review and approval.
  12. Prior to final engineering plan approval, all new utilities and existing utilities along the subject property's frontage of SW Brookman Road shall be placed underground per City of Sherwood standards.
  13. Prior to Final Approval of Engineering Plans, applicant shall obtain and submit a copy of an agreement letter between applicant and CWS which supports CWS approval of sanitary trunk line design.
  14. Prior to Final Approval of Engineering Plans, the design of the public sanitary sewer system shall conform with CWS design and construction standards (CWS R&O 17-5).

15. Prior to Final Approval of Engineering Plans, the water system design shall include the extension of a 12-inch diameter water line from Inkster Drive to Brookman Road along Oberst Road, and east and west along Brookman Road to the extents of the site development project along Brookman Road.
16. Prior to Final Approval of Engineering Plans, the public water system design shall include waterline extension stubs to allow adjacent future development access to public water systems.
17. Prior to Final Approval of Engineering Plans, the public water system alignments that are within easements shall be shown on the design plans and shall include profiles and not less than three cross-sections equally spaced per alignment.
18. Prior to Final Approval of Engineering Plans, applicant shall submit a final stormwater report, stamped by a civil engineer registered in the State of Oregon, and complying with the engineering design requirements and standards of CWS (*CWS Design and Construction Standards Manual and Surface Water Management R&O 17-05*).
19. Prior to Final Approval of Engineering Plans, the final stormwater report and construction plan set shall include provisions for detaining stormwater meeting the SLOPES V requirements.
20. Prior to Final Approval of Engineering Plans, the final stormwater report shall include a technical analysis of the condition and capacity of the proposed discharge point at the culvert. In addition, the final construction plan set shall provide specific design details which reflects the final stormwater reports mitigation recommendations.
21. Prior to Final Approval of Engineering Plans, the design of the emergency access road shall include a TVF&R approved locking gate system at both the north right-of-way line of SW Brookman Road and at the north property line of Tax Lot 3S106B000200.
22. Prior to Final Approval of Engineering Plans, the design of the east leg SW Wapato Lake Drive shall confirm that TVF&R standards which require when a hammerhead turnaround are met or not met. The applicant may also obtain a Uniform Alternate Construction Standard approval for sprinkler systems for the buildings on Lots 6 and 7.
23. Prior to Final Approval of Engineering Plans, the applicant shall conform with all the requirements and conditions listed in the State of Oregon Department of State Lands, Wetland Delineation/Determination Concurrence Letter (WD# 2018-0275, dated June 27, 2018).

**F. Prior to Issuance of Building Permits**

1. Prior to issuance of building permits, submit plot plans and building plans showing that the structures meet minimum front, face of garage, rear, side, corner side yard setback requirements, height and yard requirements.
2. Prior to the issuance of building permits, each lot shall provide for one off-street parking space.
3. Prior to the issuance of building permits the appropriate permit applications and details regarding the design of each driveway will be submitted to the City of Sherwood for review and approval.
4. Prior to the issuance of building permits for the propose subdivision, the applicant shall provide the Planning Department with a letter or email, from TVFR District Fire marshal that indicates the concerns within his letter, attached as Exhibit E, have been addressed to the district's satisfaction.
5. Prior to issuance of any building permits, install the landscaped visual corridor or bond for the installation of improvements per revised approved Landscape, Tree and Open Space Plan.

6. Prior to issuance of any building permits, the developer shall execute an Engineering Compliance Agreement for the public improvements related to the project.

**G. Prior to Acceptance of Public Improvements**

1. Prior to Final Acceptance of Public Waterline Improvements, the waterline shall obtain approval by City Public Works staff for compliance with City construction and testing requirements.
2. Prior to Final Acceptance of Public Improvements, the stormwater treatment and detention facility shall be located in a tract of land dedicated to the City of Sherwood and shown on the recorded plat of the subdivision.
3. Prior to Final Acceptance of Public Improvements, the developer shall dedicate a minimum 8-foot wide PUE along all street frontages unless otherwise approved by the City Engineer.
4. Prior to Final Acceptance of Public Improvements, Sherwood Broadband utilities (vaults and conduits) shall be installed along the subject property's frontage per requirements set forth in City Ordinance 2005-017 and City Resolution 2005-074.
5. Prior to Acceptance of Public Improvements, the applicant shall have complied with all the requirements and conditions of permit(s) issued by City, CWS, DSL, USACE, and/or NMFS.
6. Prior to Acceptance of Public Improvements, the applicant shall provide copies of all recorded public utilities easements for any public utilities constructed outside the public right-of-way.
7. Prior to Acceptance of Public Improvements, as-built drawings and related electronic files shall be submitted to City engineering for review and approval. Public utilities constructed outside public right-of-way shall be verified to have been constructed within recorded public utility easements. If public utilities have been constructed outside recorded public utility easements, the public utility easements shall be re-recorded to accurately reflect the public utility alignment, in conformance with City standards.

**H. Prior to Occupancy of Structures**

1. Prior to Grant of Occupancy, final acceptance of constructed public improvements shall be obtained from the Engineering Department. This acceptance includes complying with all requirements and conditions of the NPDES 1200C Permit.
2. Prior to Grant of Occupancy, the individual lot shall be landscaped and all required street trees shall be planted in accordance to city standards.
3. Prior to Grant of Occupancy, obtain a Finaled Washington County Facility Permit per Exhibit C.1.
4. Prior to Grant of Occupancy, all installed private sanitary sewer piping shall be installed meeting the standards of the Oregon Specialty Plumbing Code (recent edition).
5. Prior to Grant of Occupancy, all installed private water service piping shall be installed meeting the standards of the Oregon Specialty Plumbing Code (recent edition).
6. Prior to Grant of Occupancy, any existing ground water wells located within the defined site development limits, identified during site design or construction shall be abandoned per State OAR 690-220-0030.



7. Prior to Grant of Occupancy, the 20-foot temporary emergency access shall be constructed.
8. Prior to Grant of Occupancy, install the visual corridor landscaping per the landscape plans submitted during final plat review.
9. Prior to Grant of Occupancy, final acceptance of the constructed public improvements shall be obtained from the Engineering Department.

## **VII. Exhibits**

- A.1 Applicant's submittal with narrative and supporting documents dated January 25, 2019
- A.2 Applicant's Revised Site Plan dated June 25, 2019 shifted access to SW Brookman Road to the west
- A.3 Applicant's Proposed Mitigation with Development Memo dated May 30, 2019
- A.4 Applicant's Additional Documentation to Washington County dated February 19, 2019
- B.1 Engineering comments dated June 26, 2019
- B.2 Engineering Design Variation Request for Cul-De-Sac Length Exception – June 18, 2019
- B.3 Engineering Design Variation Request for Access Spacing Exception – June 19, 2019
- B.4 Engineering Memorandum, Amended Conditions of Approval – July 9, 2019
- C.1 Washington County LUT comments dated June 27, 2019
- C.2 Washington County LUT Long Range Planning comments dated July 2, 2019
- C.3 Washington County Article VII Review dated June 4, 2019
- D. ODOT comments dated February 21, 2019
- E. Tualatin Valley Fire & Rescue comments dated February 1, 2019
- F. Clean Water Services comments dated February 4, 2019
- G. Waste Management comments dated February 21, 2019
- H. Department of State Lands comments dated January 22, 2019
- I. Union Pacific Draft Pipe Line Crossing Agreement at Mile Post 756.49
- J.1 Freuler comments dated June 20, 2019
- J.2 Wells comments dated June 22, 2019
- J.3 Bascom comments dated June 24, 2019
- J.4 Tatman comments dated June 26, 2019
- J.5 Weekley Homes comments dated July 9, 2019
- J.6 Bailey written testimony of July 9, 2019

**The preliminary subdivision approval is valid for a period of two (2) years from the date of the decision, per Section 16.120.050.**