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-	DEVELOPMENT REVIEW APPLICATION			
	For Office Use Only         STAFF CONTACT       PROJECT NO(S).         MP-18-01       WRG-18-01         NON-REFUNDABLE FEE(S)       2600         REFUNDABLE DEPOSIT(S)       5550         TOTAL       8150			
ŗ	Type of Review (Please check all that apply):         Annexation (ANX)       Historic Review         Appeal and Review (AP) *       Legislative Plan or Change         Conditional Use (CUP)       Lot Line Adjustment (LLA) */**         Design Review (DR)       2800         Easement Vacation       Non-Conforming Lots, Uses & Structures         Extraterritorial Ext. of Utilities       Planned Unit Development (PUD)         Final Plat or Plan (FP)       Pre-Application Conference (PA) */**         Street Vacation       Street Vacation         Hillside Protection & Erosion Control       Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temp different or additional application forms, available on the City website or at City	Subdivision (SUB) Temporary Uses * Time Extension * Variance (VAR) Water Resource Area Protection/Single Lot (WAP) Water Resource Area Protection/Wetland (WAP) Willamette & Tualatin River Greenway (WRG) / 700 Cone Change porary Sign Permit applications require Hall.		
-	Site Location/Address: East of southern terminus of Evah Lane 1236 14th St	Assessor's Map No.: <b>31E02BC</b> Tax Lot(s): <b>4001</b> Total Land Area: <b>1.5 acres</b>		
-	Brief Description of Proposal: 2-Parcel partition of Tax Lot 4001			
	Applicant Name: (please print)PAT O'BRIENAddress:PO BOX 4008City State Zip:WILSONVILLE, OR 97070	Phone: Email: <b>Please contact applicant's</b> consultant		
Owner Name (required):PAT O'BRIEN(please print)PO BOX 4008Address:PO BOX 4008City State Zip:WILSONVILLE, OR 97070		Phone: Email: Please contact applicant's consultant		
-	Consultant Name: JON MORSE, P.E.(please print)Address:12965 SW HERMAN RD., SUITE 100City State Zip:TUAL ATIN OR 97068	Phone: (503) 563-6151 Email: jonm@aks-eng.com		
-	<ul> <li>1. All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing. C E V E</li> <li>2. The owner/applicant or their representative should be present at all public hearings.</li> <li>3. A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.</li> <li>4. Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. JAN 2 9 2018</li> <li>One (1) complete set of digital application materials must also be submitted on CD in PDF format.</li> <li>If large sets of plans are required in application please submit only two sets.</li> <li>* No CD required / ** Only one hard-copy set needed</li> </ul>			
5	The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not infer a complete submittal. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable. Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application.			

# Land Use Application for a Partition, Water Resource Area Permit, Flood Management Area Permit, and Tualatin River Greenway Permit

Date:

Submitted to:

**Applicant:** 

January 29, 2018

City of West Linn 22500 Salamo Road West Linn, OR 97068

O'Brien and Company, LLC PO Box 4008 Wilsonville, OR 97070



12965 SW Herman Road, Suite 100 Tualatin, OR 97062 (503) 563-6151

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## **Exhibits**

Exhibit A: Preliminary Partition Plans Exhibit B: Partition Application Form Exhibit C: Verification of Property Ownership Exhibit D: HCA Map Redesignation Request

Exhibit E: TVF&R Acceptance of Fire Access

## Land Use Application for a Partition, Water Resource Area Permit, Flood Management Area Permit, and Tualatin River Greenway Permit

Submitted to:	City of West Linn Planning Department 22500 Salamo Road West Linn, OR 97068	
Applicant:	Pat O'Brien PO Box 4008 Wilsonville, OR 97070	
Property Owners:	Pat O'Brien (Lot 4001) PO Box 4008 Wilsonville, OR 97070	
Applicant's Consultant:	AKS Engineer 12965 SW He Tualatin, OR Contact(s): Email: Phone: Fax:	ring & Forestry, LLC erman Road, Suite 100 97062 Jon Morse, P.E. jonm@aks-eng.com (503) 563-6151 (503) 563-6152
Site Location:	At existing southern terminus of Evah Lane	
Site Size:	±1.5 acres	
Land Use Districts:	R-10 (Single-Family Residential Detached)	



## I. Executive Summary

This application involves a two-parcel partition of Tax Lot 4001 of Clackamas County Assessor's Map 3-1E-02BC. This partition is possible due to the City's recent approval of a property line adjustment between Tax Lots 3800 and 4001 (West Linn Planning File No. LLA-17-02). The partition has been designed to minimize impacts to mapped Water Resource Areas (WRAs), Habitat Conservation Areas (HCAs), and Flood Management Areas (FMAs), that lie in the vicinity of the site. This application includes the City application forms, written materials, and the preliminary plans necessary to demonstrate compliance with the applicable approval criteria. The evidence is substantial and supports the City's approval of the application.

## II. Site Description/Setting

Tax Lot 4001 is located near West Linn's southern boundary, north of the Tualatin River and immediately east and south of the southernmost terminus of Evah Lane. The site is currently improved with a single-family residence, paved access, a sanitary sewer main, and has been disturbed from previous grading work.

While much of the land in the nearby vicinity has been subdivided, there are a few properties large enough to be subdivided under the existing standards of the City's R-10 zoning district. Due to the existing pattern of development and topographical complexity, the street and sidewalk network in this part of the City is relatively disjointed.

According to the City's GIS, the City's Flood Management Area (FMA) boundary, and other resource areas associated with the Tualatin River to the south, occupy approximately the southern 30-50 percent of Tax Lot 4001.

## III. Applicable Review Criteria

### CITY OF WEST LINN COMMUNITY DEVELOPMENT CODE

Chapter 11 - SINGLE-FAMILY RESIDENTIAL DETACHED, R-10

11.030 Permitted Uses

The following are uses permitted outright in this zoning district

- 1. Single-family detached residential unit.
- 2. Community recreation.
- 3. Family day care.
- 4. **Residential home.**
- 5. Utilities, minor.
- 6. Transportation facilities (Type I).
- 7. Manufactured home.
- **<u>Response:</u>** This application does not include a request to construct homes, but the Applicant anticipates that a new detached single-family residence will be built on Parcel 2. The City will confirm that the proposed structures are permitted in the R-10 Zone at time of building permit submittal. The criterion can be met.



11.070 Dimensional Requirements, Uses Permitted Outright And Uses Permitted Under Prescribed Conditions

Except as may be otherwise provided by the provisions of this code, the following are the requirements for uses within this zone:

- 1. The minimum lot size shall be 10,000 square feet for a single-family detached unit.
- 2. The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.
- 3. The average minimum lot width shall be 50 feet.
- 4. Repealed by Ord. 1622.
- **<u>Response:</u>** Exhibit A shows that both parcels satisfy the lot dimensional requirements of CDC Chapter 85, which are addressed below. The criteria are met.
  - 5. Except as specified in CDC 25.070(C)(1) through (4) for the Willamette Historic District, the minimum yard dimensions or minimum building setback area from the lot line shall be:
    - a. For the front yard, 20 feet; except for steeply sloped lots where the provisions of CDC 41.010 shall apply.
    - b. For an interior side yard, seven and one-half feet.
    - c. For a side yard abutting a street, 15 feet.
    - d. For a rear yard, 20 feet.
- **Response:** This application does not include a request to construct new homes on the subject property, as shown in Exhibit A, but both parcels can accommodate the setback requirements of the R-10 Zone. The City will ensure that new homes proposed on these parcels is consistent with the setback requirements at time of building permit submittal. The criteria can be met.
  - 6. The maximum building height shall be 35 feet, except for steeply sloped lots in which case the provisions of Chapter 41 CDC shall apply.
  - 7. The maximum lot coverage shall be 35 percent.
- **Response:**This application does not include a request to construct new homes on the subject<br/>property, but the Applicant is aware of the height and lot coverage limitations in the R-10<br/>Zone. The City will ensure that a new home proposed on Parcel 2 meets the height and<br/>lot coverage requirements at time of building permit submittal. The criteria can be met.
  - 8. The minimum width of an accessway to a lot which does not abut a street or a flag lot shall be 15 feet.
- **<u>Response:</u>** Exhibit A shows that Parcel 1 will be accessed by an access easement across Parcel 2 and that Parcel 2 will be accessed from the south terminus of Evah Lane. The criterion is met.
  - 9. The floor area ratio shall be 0.45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of 0.30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a non-conforming structures permit under Chapter 66 CDC.



#### 10. The sidewall provisions of Chapter 43 CDC shall apply.

**Response:** The Applicant is aware of the floor to area ratio and sidewall provisions in the R-10 Zone. The existing home on Parcel 1 does not exceed the floor to area or sidewall provisions in the R-10 zone and the City will ensure that a new home on Parcel 2 meets the floor to area ratio and sidewall requirements at time of building permit submittal. The criteria can be met.

#### 11.090 Other Applicable Development Standards

- A. The following standards apply to all development including permitted uses:
  - 1. Chapter 34 CDC, Accessory Structures, Accessory Dwelling Units, and Accessory Uses.
  - 2. Chapter 35 CDC, Temporary Structures and Uses.
  - 3. Chapter 38 CDC, Additional Yard Area Required; Exceptions to Yard Requirements; Storage in Yards; Projections into Yards.
  - 4. Chapter 40 CDC, Building Height Limitations, Exceptions.
  - 5. Chapter 41 CDC, Structures on Steep Lots, Exceptions.
  - 6. Chapter 42 CDC, Clear Vision Areas.
  - 7. Chapter 44 CDC, Fences.
  - 8. Chapter 46 CDC, Off-Street Parking, Loading and Reservoir Areas.
  - 9. Chapter 48 CDC, Access, Egress and Circulation.
  - 10. Chapter 52 CDC, Signs.
  - 11. Chapter 54 CDC, Landscaping.
- **Response:** Responses to the applicable criteria from the above-listed sections are included below.
  - B. The provisions of Chapter 55 CDC, Design Review, apply to all uses except detached single-family dwellings, residential homes and residential facilities.
- **<u>Response:</u>** This application does not include a request to construct new homes on the subject property, but the Applicant anticipates that a detached single-family residence will be constructed on Parcel 2. The City will find that the design review provisions of Chapter 55 do not apply during the building permit review. The criteria do not apply.

#### Chapter 27 - FLOOD MANAGEMENT AREAS

#### 27.020 Applicability

A flood management area permit is required for all development in the Flood Management Area Overlay Zone. The standards that apply to flood management areas apply in addition to State or federal restrictions governing floodplains or flood hazard areas.

**<u>Response:</u>** Exhibit A shows that the application will result in two parcels. The parcels will include a buildable area that does not require home construction within the Flood Management Area Overlay. The criteria do not apply.

#### Chapter 28 - WILLAMETTE AND TUALATIN RIVER PROTECTION

28.030 Applicability



- A. The Willamette and Tualatin River Protection Area is an overlay zone. The zone boundaries are identified on the City's zoning map, and include:
  - 1. All land within the City of West Linn's Willamette River Greenway Area.
  - 2. All land within 200 feet of the ordinary low water mark of the Tualatin River, and all land within the 100-year floodplain of the Tualatin River.
  - 3. In addition to the Willamette Greenway and Tualatin River Protection Area boundaries, this chapter also relies on the HCA Map to delineate where development should or should not occur. Specifically, the intent is to keep out of, or minimize disturbance of, the habitat conservation areas (HCAs). Therefore, if all, or any part, of a lot or parcel is in the Willamette Greenway and Tualatin River Protection Area boundaries, and there are HCAs on the lot or parcel, a Willamette and Tualatin River Protection Area permit shall be required unless the development proposal is exempt per CDC 28.040.
- B. At the confluence of a stream or creek with either the Tualatin or Willamette River, the standards of this chapter shall apply only to those portions of the lot or parcel fronting the river. Meanwhile, development in those portions of the property facing or adjacent to the stream or creek shall meet the transition, setbacks and other provisions of Chapter 32 CDC, Water Resource Area Protection.
- C. All uses permitted under the provisions of the underlying base zone and within the Willamette and Tualatin River Protection Area zone are allowed in the manner prescribed by the base zone subject to applying for and obtaining a permit issued under the provisions of this chapter unless specifically exempted per CDC 28.040.
- D. The construction of a structure in the HCA or the expansion of a structure into the HCA when the new intrusion is closer to the protected water feature than the preexisting structure.
- **Response:** Exhibit A shows that a portion of the site is located within the Tualatin River Protection Area. It also shows that no impacts to this area are anticipated as a new sanitary sewer lateral to serve Parcel 2 will connect with an existing sanitary sewer main located on Parcel 2 and outside of this resource.
  - 28.040 Exemptions/Uses Permitted Outright

The following development activities do not require a permit under the provisions of this chapter. (Other permits may still be required.)

- (...)
- H. Storage of equipment or material associated with uses permitted, providing that the storage complies with applicable provisions of this chapter.
- (...)
- O. Routine maintenance activities such as removing dead or dying vegetation that constitutes a hazard to life or property, pollutants, trash, eroded material, etc.
- P. Wetland, riparian and upland enhancement or restoration projects done with approval of City staff and regulatory agency personnel (e.g., ODFW, DSL).
- Q. Temporary and minor clearing not to exceed 200 square feet for the purpose of site investigations and pits for preparing soil profiles; provided, that such areas are restored to their original condition when the investigation is complete. For wetlands, such clearing shall not occur within the actual wetland itself, but only within the adjacent wetland transition area. While such temporary and minor clearing is exempt from the provisions of this chapter, it is subject to all other City codes, including provisions for erosion control and tree removal.



- R. Removal of plants identified as nuisance or prohibited plants on the Metro Native Plant List and the planting or propagation of plants identified as native plants on the Metro Native Plant List. Handheld tools must be used to remove nuisance or prohibited plants, and after such removal all open soil areas greater than 25 square feet must be replanted.
- S. In cases where the required development standards of this chapter are applied and met with no encroachment into HCAs, and also meeting subsections T and U of this section, where applicable, then no permit under the provisions of this chapter will be required. For example, if the proposed development or action will be located in the "Habitat and Impact Areas Not Designated as HCAs" and keeps out of the habitat conservation areas, a Willamette or Tualatin River Protection Area permit shall not be required. Floodplain management area or other permits may still be required.
- T. The construction, remodeling or additions of home and accessory structures that take place completely within the "Habitat and Impact Areas Not Designated as HCAs" shall be exempt from a Willamette or Tualatin River Protection Area permit. Where the "Habitat and Impact Areas Not Designated as HCAs" goes to the edge of a clearly defined top of bank, the applicant's home and accessory structures shall be set back at least 15 feet from top of bank. At-grade patios and deck areas within 30 inches of grade may extend to within five feet from top of bank. No overhang or cantilevering of structures is permitted over HCA or over setback area. If these terms are met then no permit will be required under this chapter.
- U. Maintenance, alteration, expansion, repair and replacement of existing structures are exempt, provided impermeable surfaces do not exceed 5,000 square feet and that it complies with the provisions of Chapters 27 and 28 CDC. The following standards shall also apply:
  - 1. Rebuilding of existing residential and non-residential structures within the same foundation lines as the original structure(s) including, but not limited to, those damaged or destroyed by fire or other natural hazards; or
  - 2. The alteration, expansion, repair and replacement of a house or structure per the standards of CDC 28.110(E) not to exceed 5,000 square feet of impermeable surface per that section; or
  - 3. The alteration, expansion, repair and replacement of a house or structure vertically where the applicant is adding additional floors or expanding above the footprint of the existing structure regardless of whether the structure's footprint is in an HCA or not.
- (...)
- Y. Installation of new and/or replacement water-permeable driveways, paths and patios and two-track driveways outside of HCAs. Surface area cannot exceed amount allowed by lot coverage standards of underlying zone.
- Z. Accessory structures under 15 feet tall and 500 square feet located on the opposite side of the house or principal structure from the resource area requires only a building permit.
- AA. Lands that are designated as an HCA only due to a forested canopy shall be exempted since trees are already protected in the municipal code and Chapters 55 and 85 CDC. Development of lands that are designated as HCA due to other variables such as wetlands, flood areas and steep slopes shall still be regulated by the provisions of this chapter and not exempted.
- **Response:** Exhibit A shows that a portion of the site is located within the Tualatin River Protection Area. The new parcels have been configured to accommodate a buildable footprint that is located outside of the Tualatin River Protection Area. A new sanitary sewer lateral for



Parcel 2 is planned to avoid impacts to the protection area by connecting with an existing sanitary sewer main located north of the protection area.

28.050 Prohibited Uses

The following are prohibited:

- 1. Residential floating structures, also known as floating homes or houseboats.
- 2. Permanent ski jumps.
- 3. More than one dock with or without a boat house per riverfront lot of record, except City-owned tax lots 100, 200, 300, 400, and 500 of Assessor's Map 21 East 24.
- 4. The location of any dock under any water condition that prevents what would otherwise be historic, safe, uninterrupted water passage.
- 5. Any new lawn area or garden area consisting primarily of non-native vegetation within HCA lands. A lawn area in the "Allowed Development" area is permitted.
- 6. Planting of any species identified as nuisance or prohibited plants on the Metro Native Plant List.
- 7. Non-permitted storage of hazardous materials as defined by the Oregon Department of Environmental Quality and dumping of any materials of any kind.
- 8. Excessive trimming or removal of existing native vegetation within the HCA unless it is to reestablish native vegetation in place of non-native or invasive vegetation.
- **<u>Response:</u>** The application does not include, nor does the Applicant anticipate, any of the abovelisted prohibited uses on site.
  - 28.070 Planning Director Verification of Metro Habitat Protection Map Boundaries
    - A. The HCA Map is the basis for identifying and designating the habitat conservation areas in the City. A copy of the latest, updated HCA Map is on file at the City and is adopted by reference for use with this chapter.

It is inevitable, given the large area that Metro's HCA Map covers, that there may be some errors. In cases where, for example, three properties share the same contours and the same natural features but the map shows the middle lot with an HCA designation on it, it is reasonable to question the accuracy of that HCA designation. Using tree overstory as the sole basis for HCA designation will also allow a change in designation since trees are already protected in the municipal code and Chapters 55 and 85 CDC.

- B. The Planning Director shall verify the appropriate HCA or non-HCA designation by site visits or consultations with Metro or by other means. Determination is based on whether the Metro criteria are met or whether the Metro designation was based solely on tree overstory in which case a redesignation is appropriate. In cases where the determination is that the map is incorrect, the Planning Director will make a written finding of this as well as the site conditions that led to that conclusion.
- C. Class B public notice, per Chapter 99 CDC, shall be required prior to issuance of the redesignation decision if it involves redesignation of the HCA boundary to allow the construction of, or addition to, a house.
- D. This determination and findings shall become part of the City record and part of the record for any associated land use application. The Planning Director shall also include in the record the revised map boundary. The Planning Director's determination and map revisions shall also be sent to Metro so that their map may be corrected as necessary.



- E. The Planning Director determination is appealable to the City Council per Chapter 99 CDC.
- F. Lands that are designated as an HCA only due to a forested overstory are exempt under CDC 28.040, Exemptions, since trees are already protected in the municipal code and Chapters 55 and 85 CDC. Similar exemptions apply to lands that exhibit no constraints.
- **<u>Response:</u>** The application includes a request for a redesignation of the HCA Map boundary, based on existing site conditions and consistent with the City's and Metro's process for such a redesignation. The Applicant's rationale and justification for this redesignation is included in Exhibit D.
  - 28.090 Submittal Requirements: Application
    - A. An application for a protection area permit shall be initiated by the property owner or the owner's authorized agent. Evidence shall be provided to demonstrate that the applicant has the legal right to use the land above the OLW. The property owner's signature is required on the application form.
    - B. A prerequisite to the filing of an application is a pre-application conference at which time the Planning Director shall explain the provisions of this chapter and provide appropriate forms as set forth in CDC 99.030(B).
    - C. An application for a protection area permit shall include the completed application and:
      - 1. Narrative which addresses the approval criteria of CDC 28.110.
      - 2. A site plan, with HCA boundaries shown and by low, moderate, high type shown (CDC 28.120).
      - 3. A grading plan if applicable (CDC 28.130).
      - 4. Architectural drawings if applicable (CDC 28.140).
      - 5. A landscape plan if applicable (CDC 28.150).
      - 6. A mitigation plan if applicable (CDC 28.160).

One original application form must be submitted. One copy at the original scale and one copy reduced to 11 inches by 17 inches or smaller of all drawings and plans must be submitted. One copy of all other items, including the narrative, must be submitted. The applicant shall also submit one copy of the complete application in a digital format acceptable to the city. When the application submittal is determined to be complete, additional copies may be required as determined by the Planning Director.

- D. The applicant shall pay the requisite fees.
- E. The applicant shall be responsible for, and shall apply for, all applicable State and/or federal permits.
- F. The applicant shall include a map, approved or acknowledged by DSL, of the preference rights and authorized areas if a water surface structure is proposed.
- **<u>Response:</u>** As supported by this narrative and the accompanying exhibits, required submittal elements are included with this application. The Applicant also met with City Planning staff on October 20, 2016 to fulfill the pre-application conference requirement. These criteria are met.



- 28.100 Additional Submittal Information Required, Waiver Of Submittal Requirements
  - A. The Planning Director may require additional information as a part of the application subject to the provisions of CDC 99.035(A).
  - B. The Planning Director may waive any submittal requirement for the application subject to the provisions of CDC 99.035(B) and (C).
- **<u>Response:</u>** The Planning Director has not requested any additional information as part of this application. The application does not seek a waiver to any of the submittal requirements of this chapter.
  - 28.110 Approval Criteria

No application for development on property within the protection area shall be approved unless the decision-making authority finds that the following standards have been met or can be met by conditions of approval. The development shall comply with the following criteria as applicable:

- A. Development: All sites.
  - 1. Sites shall first be reviewed using the HCA Map to determine if the site is buildable or what portion of the site is buildable. HCAs shall be verified by the Planning Director per CDC 28.070 and site visit. Also, "tree canopy only" HCAs shall not constitute a development limitation and may be exempted per CDC 28.070(A). The municipal code protection for trees and Chapters 55 and 85 CDC tree protection shall still apply.
- **<u>Response:</u>** Exhibit D shows that the Habitat Conservation Area (HCA) is incorrectly mapped and should be relocated. It also shows that there is sufficient buildable area on Parcels 1 and 2, and that Parcel 2 can accommodate future home construction that does not encroach into the HCA. The criterion is met.
  - 2. HCAs shall be avoided to the greatest degree possible and development activity shall instead be directed to the areas designated "Habitat and Impact Areas Not Designated as HCAs," consistent with subsection (A)(3) of this section.
- **Response:** Exhibit D shows that this application includes sufficient buildable areas for the two parcels, and that they can accommodate future home construction that does not encroach into the HCA. The Applicant anticipates that the home plans for a new home on Parcel 2 will demonstrate that impacts to the HCA have been avoided. The criterion can be met.
  - 3. If the subject property contains no lands designated "Habitat and Impact Areas Not Designated as HCAs" and development within HCA land is the only option it shall be directed towards the low HCA areas first, then medium HCA areas and then to high HCA as the last choice. The goal is to, at best, avoid or, at least, minimize disturbance of the HCAs. (Water-dependent uses are exempt from this provision.)
  - 4. All development, including exempted activities of CDC 28.040, shall have approved erosion control measures per Clackamas County Erosion Prevention and Sediment Control Planning and Design Manual, rev. 2008, in place prior to site disturbance and be subject to the requirements of CDC 32.070 and 32.080 as deemed applicable by the Planning Director.



- **Response:** Exhibit A shows that the partition has been configured to create parcels that can accommodate new home construction on the part of the site that includes habitat and impact areas that are not designated as HCAs. The City will ensure that all applicable erosion control measures are in place prior to site construction. The criteria are and/or can be met.
  - B. Single-family or attached residential. Development of single-family homes or attached housing shall be permitted on the following HCA designations and in the following order of preference with "a" being the most appropriate and "d" being the least appropriate:
    - a. "Habitat and Impact Areas Not Designated as HCAs"
    - b. Low HCA
    - c. Moderate HCA
    - d. High HCA
    - 1. Development of land classifications in "b," "c" and "d" shall not be permitted if at least a 5,000-square-foot area of buildable land ("a") exists for home construction, and associated impermeable surfaces (driveways, patios, etc.).
    - 2. If 5,000 square feet of buildable land ("a") are not available for home construction, and associated impermeable surfaces (driveways, patios, etc.) then combinations of land classifications ("a," "b" and "c") totaling a maximum of 5,000 square feet shall be used to avoid intrusion into high HCA lands. Development shall emphasize area "a" prior to extending construction into area "b," then "c" lands.
    - 3. The underlying zone FAR shall also apply as well as allowable lot coverage.
    - 4. Development may occur on legal lots and non-conforming lots of record located completely within the HCA areas or that have the majority of the lot in the HCA to the extent that the applicant has less than 5,000 square feet of non-HCA land.

Development shall disturb the minimum necessary area to allow the proposed use or activity, shall direct development to any available non-HCA lands and in any situation shall create no more than 5,000 square feet of impervious surface. (Driveways, paths, patios, etc., that are constructed of approved water-permeable materials will not count in calculating the 5,000-square-foot lot coverage.) The underlying zone FAR and allowable lot coverage shall also apply and may result in less than 5,000 square feet of lot coverage.

When only HCA land is available then the structure shall be placed as far away from the water resource area or river as possible. To facilitate this, the front setback of the structure or that side which is furthest away from the water resource or river may be reduced to a five-foot setback from the front property line without a variance. Any attached garage must provide a 20-foot by 20-foot parking pad or driveway so as to provide off-street parking exclusive of the garage. The setbacks of subsection C of this section shall still apply.

- **Response:** Exhibit A shows that the partition creates parcels that will accommodate new home construction on the part of the site that includes "Habitat and Impact Areas Not Designated as HCAs." The criteria are met.
  - 5. Driveways, paths, patios, etc., that are constructed of approved waterpermeable materials will be exempt from the lot coverage calculations of subsections (B)(1) through (4) of this section and the underlying zone.



#### 6. Table showing development allowed by land classification:

	Development Allowed	
Non-HCA ("a")	Yes	
Low-Medium HCA ("b" and "c")	Yes, if less than 5,000 sq. ft. of non-HCA land available. Avoid "d."	
High HCA ("d")	Yes, but only if less than 5,000 sq. ft. of "a," "b" and "c" land available.	
Non-conforming Structures (structures on HCA land)	Yes: vertically, laterally and/or away from river. Avoid "d" where possible.	

(The underlying zone FAR and allowable lot coverage shall also apply.)

- **<u>Response:</u>** Exhibit A shows that the partition has been configured to create parcels that can accommodate new home construction on the part of the site that includes "Habitat and Impact Areas Not Designated as HCAs. The criteria are met.
  - C. Setbacks from top of bank.
    - 1. Development of single-family homes or attached housing on lands designated as "Habitat and Impact Areas Not Designated as HCAs" shall require a structural setback of 15 feet from any top of bank that represents the edge of the land designated as "Habitat and Impact Areas Not Designated as HCAs."
    - 2. At-grade water-permeable patios or decks within 30 inches of grade may encroach into that setback but must keep five feet from top of bank and cannot cantilever over the top of bank or into the five-foot setback area.
    - 3. For properties that lack a distinct top of bank the applicant shall identify the boundary of the area designated as "Habitat and Impact Areas Not Designated as HCAs" which is closest to the river. A structural setback of 15 feet is required from that boundary line. That 15-foot measurement extends from the boundary line away from the river. At-grade water-permeable patios or decks within 30 inches of grade may encroach into that setback 10 feet but must keep five feet from the boundary and cannot cantilever into the five-foot setback area. For vacant lots of record that comprise no lands with "Habitat and Impact Areas Not Designated as HCAs" designation or insufficient lands with those designations so that the above setbacks cannot be met, the house shall be set back as far from river as possible to accommodate house as part of the allowed 5,000 square feet of impermeable surfaces.
- **<u>Response:</u>** Exhibit A shows the location of the 15-foot structural setback as measured from the HCA boundary. The criteria are met.

#### (...)

- H. Partitions, subdivisions and incentives.
  - 1. When dividing a property into lots or parcels, an applicant shall verify the boundaries of the HCA on the property.
  - 2. Applicant shall partition or subdivide the site so that all lots or parcels have a buildable site or envelope available for home construction located on non-



HCA land or areas designated "Habitat and Impact Areas Not Designated as HCAs" per the HCA Map.

- 3. Development of HCA-dominated lands shall be undertaken as a last resort. A planned unit development (PUD) of Chapter 24 CDC may be required.
- 4. Incentives are available to encourage provision of public access to, and/or along, the river. By these means, planned unit developments shall be able to satisfy the shared outdoor recreation area requirements of CDC 55.100(F). Specifically, for every square foot of riverfront path, the applicant will receive credit for two square feet in calculating the required shared outdoor recreation area square footage. Applicants shall also be eligible for a density bonus under CDC 24.150(B). To be eligible to receive either of these incentives, applicants shall:
  - a. Provide a minimum 20-foot-wide all-weather public access path along the project's entire river frontage (reduced dimensions would only be permitted in response to physical site constraints such as rock outcroppings, significant trees, etc.); and
  - b. Provide a minimum 10-foot-wide all-weather public access path from an existing public right-of-way to that riverfront path or connect the riverfront path to an existing riverfront path on an adjoining property that accesses a public right-of-way;
  - c. Fencing may be required near steep dropoffs or grade changes.
- **<u>Response:</u>** The existing and proposed HCA Boundary is shown in Exhibits A and D. These exhibits illustrate that both parcels include sufficient area outside of the proposed HCA to accommodate a residence. The property does not have frontage on the Tualatin River. Riverfront trails are not included in this application. The applicable criteria are met.
  - (...)
  - L. Roads, driveways, utilities, or passive use recreation facilities. Roads, driveways, utilities, public paths, or passive use recreation facilities may be built in those portions of HCAs that include wetlands, riparian areas, and water resource areas when no other practical alternative exists but shall use water-permeable materials unless City engineering standards do not allow that. Construction to the minimum dimensional standards for roads is required. Full mitigation and revegetation is required, with the applicant to submit a mitigation plan pursuant to CDC 32.070 and a revegetation plan pursuant to CDC 32.080. The maximum disturbance width for utility corridors is as follows:
    - 1. For utility facility connections to utility facilities, no greater than 10 feet wide.
    - 2. For upgrade of existing utility facilities, no greater than 15 feet wide.
    - 3. For new underground utility facilities, no greater than 25 feet wide, and disturbance of no more than 200 linear feet of water quality resource area, or 20 percent of the total linear feet of water quality resource area, whichever is greater.
- **<u>Response:</u>** Exhibit A shows that a new sanitary sewer lateral to serve Parcel 2 is planned to connect with an existing sanitary sewer main on Parcel 2 outside of the protection area. Given the location of the existing sanitary sewer main and the topography of the site, this connection is the most practical and least impactful approach. At time of construction permit issuance, the City will ensure that temporary disturbances in this area, as



necessary to install the sanitary sewer laterals, disturbs the minimum area consistent with the provisions above. The criteria can be met.

- M. Structures. All buildings and structures in HCAs and riparian areas, including all exterior mechanical equipment, should be screened, colored, or surfaced so as to blend with the riparian environment. Surfaces shall be non-polished/reflective or at least expected to lose their luster within a year. In addition to the specific standards and criteria applicable to water-dependent uses (docks), all other provisions of this chapter shall apply to water dependent uses, and any structure shall be no larger than necessary to accommodate the use.
- **<u>Response:</u>** Structures are not included in this application. The Applicant does not anticipate any new structures located within the proposed HCA. The criterion does not apply.
  - N. Water-permeable materials for hardscapes. The use of water-permeable materials for parking lots, driveways, patios, and paths as well as flow-through planters, box filters, bioswales and drought tolerant plants are strongly encouraged in all "a" and "b" land classifications and shall be required in all "c" and "d" land classifications. The only exception in the "c" and "d" classifications would be where it is demonstrated that water-permeable driveways/hardscapes could not structurally support the axle weight of vehicles or equipment/storage load using those areas. Flow through planters, box filters, bioswales, drought tolerant plants and other measures of treating and/or detaining runoff would still be required in these areas.
- **<u>Response:</u>** The application does not include any hardscapes. The Applicant understands that waterpermeable materials for driveways, patios, paths, and similar site features are not required but encouraged in "a" habitat classifications. The criterion does not apply.
  - O. Signs and graphics. No sign or graphic display inconsistent with the purposes of the protection area shall have a display surface oriented toward or visible from the Willamette or Tualatin River. A limited number of signs may be allowed to direct public access along legal routes in the protection area.
- **<u>Response:</u>** The application does not include any signs or graphics. The criterion does not apply.
  - P. Lighting. Lighting shall not be focused or oriented onto the surface of the river except as required by the Coast Guard. Lighting elsewhere in the protection area shall be the minimum necessary and shall not create off-site glare or be omni-directional. Screens and covers will be required.
- **<u>Response:</u>** The application does not include any lighting. The City will ensure that exterior lighting on any new residential structures complies with this requirement at time of building permit submittal. The criterion can be met.
  - Q. Parking. Parking and unenclosed storage areas located within or adjacent to the protection area boundary shall be screened from the river in accordance with Chapter 46 CDC, Off-Street Parking, Loading and Reservoir Areas. The use of water-permeable material to construct the parking lot is either encouraged or required depending on HCA classification per CDC 28.110(N)(4).
- **<u>Response:</u>** The application does not include parking or unenclosed storage areas within or adjacent to a protection area boundary. The criterion does not apply.
  - R. Views. Significant views of the Willamette and Tualatin Rivers shall be protected as much as possible as seen from the following public viewpoints: Mary S. Young Park, Willamette Park, Cedar Oak Park, Burnside Park, Maddox Park, Cedar Island, the Oregon City Bridge, Willamette Park, and Fields Bridge Park.



Where options exist in the placement of ramps and docks, the applicant shall select the least visually intrusive location as seen from a public viewpoint. However, if no options exist, then the ramp, pilings and dock shall be allowed at the originally proposed location.

- **<u>Response:</u>** Future homes on the site will not impact views of the Tualatin River as seen from the above-listed vantage points. The criterion is met.
  - (...)
  - T. Changing the landscape/grading.
    - 1. Existing predominant topographical features of the bank line and escarpment shall be preserved and maintained except for disturbance necessary for the construction or establishment of a water related or water dependent use. Measures necessary to reduce potential bank and escarpment erosion, landslides, or flood hazard conditions shall also be taken.

Any construction to stabilize or protect the bank with rip rap, gabions, etc., shall only be allowed where there is clear evidence of erosion or similar hazard and shall be the minimum needed to stop that erosion or to avoid a specific and identifiable hazard. A geotechnical engineer's stamped report shall accompany the application with evidence to support the proposal.

- 2. The applicant shall establish to the satisfaction of the approval authority that steps have been taken to minimize the impact of the proposal on the riparian environment (areas between the top of the bank and the low water mark of the river including lower terrace, beach and river edge).
- 3. The applicant shall demonstrate that stabilization measures shall not cause subsequent erosion or deposits on upstream or downstream properties.
- 4. Prior to any grading or development, that portion of the HCA that includes wetlands, creeks, riparian areas and water resource area shall be protected with an anchored chain link fence (or approved equivalent) at its perimeter and shall remain undisturbed except as specifically allowed by an approved Willamette and Tualatin River Protection and/or water resource area (WRA) permit. Such fencing shall be maintained until construction is complete. That portion of the HCA that includes wetlands, creeks, riparian areas and water resource area shall be identified with City-approved permanent markers at all boundary direction changes and at 30- to 50-foot intervals that clearly delineate the extent of the protected area.
- 5. Full erosion control measures shall be in place and approved by the City Engineer prior to any grading, development or site clearing.
- **<u>Response:</u>** The application does not include any grading on the subject site. The City will ensure the above standards are met for the building permit submittal. The criteria can be met.
  - U. Protect riparian and adjacent vegetation. Vegetative ground cover and trees upon the site shall be preserved, conserved, and maintained according to the following provisions:
    - 1. Riparian vegetation below OHW removed during development shall be replaced with indigenous vegetation, which shall be compatible with and enhance the riparian environment and approved by the approval authority as part of the application.
    - 2. Vegetative improvements to areas within the protection area may be required if the site is found to be in an unhealthy or disturbed state by the City Arborist or his or her designated expert. "Unhealthy or disturbed" includes those sites



that have a combination of native trees, shrubs, and groundcover on less than 80 percent of the water resource area and less than 50 percent tree canopy coverage in the primary and secondary habitat conservation area to be preserved. "Vegetative improvements" will be documented by submitting a revegetation plan meeting CDC 28.160 criteria that will result in the primary and secondary habitat conservation area to be preserved having a combination of native trees, shrubs, and groundcover on more than 80 percent of its area, and more than 50 percent tree canopy coverage in its area. The vegetative improvements shall be guaranteed for survival for a minimum of two years. Once approved, the applicant is responsible for implementing the plan prior to final inspection.

- 3. Tree cutting shall be prohibited in the protection area except that:
  - a. Diseased trees or trees in danger of falling may be removed with the City Arborist's approval; and
  - b. Tree cutting may be permitted in conjunction with those uses listed in CDC 28.030 with City Arborist approval; to the extent necessary to accommodate the listed uses;
  - c. Selective cutting in accordance with the Oregon Forest Practices Act, if applicable, shall be permitted with City Arborist approval within the area between the OHW and the greenway boundary provided the natural scenic qualities of the greenway are maintained.
- **<u>Response:</u>** Exhibit A shows that impacts to the redesignated HCA are not anticipated. The criteria can be met.
  - 28.120 Site Plan
    - A. All site plans and maps shall include the name, address and telephone number of the applicant, a lineal scale of the plot plan, a north arrow and a vicinity map.
    - B. The applicant shall submit a site plan drawn to an appropriate scale (in order of preference: one inch equals 10 feet to one inch equals 30 feet), which contains the following information:
      - 1. Assessor's Map number and tax lot number.
      - 2. The lot or parcel boundaries, dimensions and gross area.
      - 3. The applicant's property and the surrounding property to a distance sufficient to determine the relationship between the applicant's property and proposed development to the adjacent property and development.
      - 4. The location, dimensions, and names of all existing and platted streets and other public ways and easements on adjacent property and on the site.
      - 5. The location, dimensions and setback distances of all:
        - a. Existing structures, improvements, utility facilities and drainageways on site and on adjoining properties;
        - b. Proposed structures or changes to existing structures, improvements, utility facilities and drainageways on the site.
    - 6. All developments shall define and map existing public access rights on, and adjacent to, the subject property.
    - 7. A slope contour map at minimum two-foot intervals showing slope classifications of zero to 25 percent and greater than 25 percent.



- 8. If a wetland on the West Linn Local Wetland Inventory is identified on the property and the proposed activity is expected to encroach within 25 feet of the wetland, a delineation of the precise boundaries of that wetland prepared by a wetland biologist.
- 9. The location of the ordinary high water mark and the ordinary low water mark on the property and on abutting properties.
- 10. The delineation of areas designated "Habitat and Impact Areas Not Designated as HCAs" and HCA areas by low, medium and high designation shall be mapped based on the HCA Map and any necessary verification shall be done by the Planning Director.
- **<u>Response:</u>** Exhibit A includes the applicable information as listed above. The criteria are met.

#### 28.130 Grading Plan

**<u>Response:</u>** The application does not propose any grading. The City will ensure the above criteria are met at such time that grading is proposed.

#### 28.140 Architectural Drawings

**Response:** The application does not include any structures or other vertical development. The City will ensure the above criteria are met if the property owners propose to erect structures on the site.

#### 28.150 Landscape Plan

**<u>Response:</u>** The application does not include any structures or other vertical development. At such time the subject property owners propose to erect structures on the site, the City will ensure the above criteria are met.

#### 28.160 Mitigation Plan

**<u>Response:</u>** The application does not include any development warranting mitigation. The City will ensure the above criteria are met if development is proposed.

#### Chapter 32 - WATER RESOURCE AREA PROTECTION

#### 32.020 Applicability

- A. This chapter applies to all development, activity or uses within WRAs identified on the WRA Map. It also applies to all verified, unmapped WRAs. The WRA Map shall be amended to include the previously unmapped WRAs.
- B. The burden is on the property owner to demonstrate that the requirements of this chapter are met, or are not applicable to the land, development activity, or other proposed use or alteration of land. The Planning Director may make a determination of applicability based on the WRA Map, field visits, and any other relevant maps, site plans and information, as to:
  - 1. The existence of a WRA;
  - 2. The exact location of the WRA; and/or
  - 3. Whether the proposed development, activity or use is within the WRA boundary.

In cases where the location of the WRA is unclear or disputed, the Planning Director may require a survey, delineation, or sworn statement prepared by a natural resource professional/wetland biologist or specialist that no WRA



exists on the site. Any required survey, delineation, or statement shall be prepared at the applicant's sole expense.

- **<u>Response:</u>** Exhibits A and D show a wetland along the southern boundary of the subject property. The wetland has been field delineated by a professional natural resources scientist (AKS Engineering & Forestry). The partition has been designed to accommodate future home construction on Parcel 2 that can occur outside the WRA boundary. Impacts to the WRA in this application are limited to a new sanitary sewer lateral that is planned to connect with an existing sanitary sewer main near the west side of Parcel 2. The applicable criteria of this chapter are responded to below.
  - 32.030 Prohibited Uses

Alteration, development, or use of real property designated as, and within, a WRA is strictly prohibited except as specifically allowed or exempted in this chapter.

**Response:** Exhibit A shows that the application does not include any of the prohibited as listed here. The criterion does not apply.

Table 32-1: Summary of Where Development and Activities May Occur in         Areas Subject to This Chapter			
Type of Development or Activity	In Water Resource	Water Resource Area	
Temporarily Disturbed Areas (TDA) (e.g., buried utilties)	No, except as allowed by WRA permit	Yes, restoration and revegetation required	

- **Response:** Exhibit A shows that a new sanitary sewer lateral to serve Parcel 2 is planned to be extended into the WRA to a connection with an existing sanitary sewer main located near the west side of Parcel 2.
  - 32.040 Exemptions

The following development, activities or uses are exempt from a WRA permit but must conform to any applicable requirements of this section.

**<u>Response</u>**: The application does not include any of the exempted uses or activities listed in this section. The criteria do not apply.

#### 32.050 Application

- A. An application requesting approval for a use or activity regulated by this chapter shall be initiated by the property owner, or the owner's authorized agent, and shall include an application form and the appropriate deposit or fee as indicated on the master fee schedule.
- **<u>Response:</u>** An application form signed by the property owner and their authorized agent is included in the exhibits. The appropriate review fees were also provided with this submittal. The criterion is met.
  - B. A pre-application conference shall be a prerequisite to the filing of the application.



- **<u>Response:</u>** A pre-application conference to discuss the subject application was held on October 20, 2016, at West Linn City Hall. The criterion is met.
  - C. The applicant shall submit maps and diagrams at 11 by 17 inches and a written narrative addressing the approval criteria and requirements of this chapter, and any additional copies required by the Planning Director.
- **Response:** The required maps and narrative are included with this submittal. The criterion is met.
  - D. Where review of soil maps, Department of Geology and Mineral Industries (DOGAMI) maps, or on-site inspection by the City Engineer reveals evidence of slope failures or that WRA slopes are potentially unstable or prone to failure, geotechnical studies may be required to demonstrate that the proposed development will not cause, or contribute to, slope failure or increased erosion or sedimentation in the WRA or adversely impact surface or modify groundwater flow or hydrologic conditions. These geotechnical studies shall include all necessary measures to avoid or correct the potential hazard.
- **<u>Response:</u>** Grading or development, except for the installation of a new underground sanitary sewer lateral serving Parcel 2, is not planned to occur on site as part of this application. The City will determine whether site conditions warrant a geotechnical investigation with future building permits. The criterion does not apply.
  - E. Applications proposing that streets or utilities cross water resources, or any other development that modifies the water resource, shall present evidence in the form of adopted utility master plans or transportation master plans, or findings from a registered Oregon civil engineer, certified engineering geologist or similarly qualified professional to demonstrate that the development or improvements are consistent with accepted engineering practices.
- **<u>Response:</u>** The application includes a new sanitary sewer lateral that is planned to encroach into the WRA. Exhibit A shows that this utility connection has been designed by a licensed professional engineer (AKS Engineering & Forestry) and is consistent with accepted engineering practices. The criterion is met.
  - F. Site plan. The applicant shall submit a site plan which contains the following information, as applicable:
    - 1. The name, address, and telephone number of the applicant, the scale (lineal) of the plan, and a north arrow.
    - 2. Property lines, rights-of-way, easements, etc.
    - 3. Topographic information at two-foot contour increments identifying both existing grades and proposed grade changes.
    - 4. A slope map delineating slopes zero to 25 percent and over 25 percent.
    - 5. Boundaries of the WRA, specifically delineating the water resource, and any riparian corridor boundary. If the proposal includes development of a wetland, a wetlands delineation prepared by a professional wetland specialist will be required. The wetland delineation may be required to be accepted or waived through the Department of State Lands (DSL) delineation review process.
    - 6. Location of existing and proposed development, including all existing and proposed structures, accessory structures, any areas of fill or excavation, water



resource crossings, alterations to vegetation, or other alterations to the site's natural state.

- 7. Identify the location and square footage of previously disturbed areas, areas that are to be temporarily disturbed, and area to be permanently disturbed or developed.
- 8. When an application proposes development within the WRA, an inventory of vegetation within the WRA, sufficient to categorize the existing condition of the WRA, including:
  - a. The type and general quality of ground cover, including the identification of dominant species and any occurrence of non-native, invasive species;
  - b. Square footage of ground cover; and
  - c. Square footage of tree canopy as measured either through aerial photographs or by determining the tree drip lines. Where only a portion of a WRA is to be disturbed, the tree inventory need only apply to the impacted area. The remaining treed area shall be depicted by outlining the canopy cover.
- 9. Locations of all significant trees as defined by the City Arborist.
- 10. Identify adopted transportation, utility and other plan documents applicable to this proposal.
- 11. For cases processed under CDC 32.110 (hardship), provide the maximum disturbed area (MDA) calculations.
- **Response:** Exhibit A contains the applicable information as listed above. These criteria are met.
  - G. Construction management plan. The applicant shall submit a construction management plan which includes the following:
    - 1. The location of proposed TDAs (site ingress/egress for construction equipment, areas for storage of material, construction activity areas, grading and trenching, etc.) that will subsequently be restored to original grade and replanted with native vegetation, shall be identified, mapped and enclosed with fencing per subsection (G)(3) of this section.
    - 2. Appropriate erosion control measures consistent with Clackamas County Erosion Prevention and Sediment Control Planning and Design Manual, rev. 2008, and a tentative schedule of work.
    - 3. The WRA shall be protected, prior to construction, with an anchored chain link fence (or equivalent approved by the City) at its perimeter that shall remain undisturbed, except as specifically authorized by the approval authority. Additional fencing to delineate approved TDAs may be required. Fencing shall be mapped and identified in the construction management plan and maintained until construction is complete.
- **<u>Response:</u>** Construction within the WRA is planned to be limited to the TDAs necessary to install a new sanitary sewer lateral to serve Parcel 2. Exhibit A shows the location of TDAs and subsequent restoration, WRA protection fencing, and appropriate erosion control measures, will be provided in accordance with this Section. The criteria are met.
  - H. Mitigation plan prepared in accordance with the requirements in CDC 32.090.
  - I. Re-vegetation plan prepared in accordance with the requirements in CDC 32.100.



- **Response:** Exhibit A shows that the revegetation for TDAs will occur consistent with all applicable provisions of CDC Section 32.100. Mitigation for TDAs is not required. The criteria are met.
  - J. The Planning Director may modify the submittal requirements per CDC 99.035.
- **<u>Response:</u>** The application is not requesting a modification of the submittal requirements.
  - K. The following additional requirements apply to applications being submitted under the alternative review process pursuant to CDC 32.070 and 32.080.
- **<u>Response:</u>** The application does not seek approval through the alternative review process. The criteria do not apply.
  - 32.060 Approval Criteria (Standard Process)

No application for development on property containing a WRA shall be approved unless the approval authority finds that the proposed development is consistent with the following approval criteria, or can satisfy the criteria by conditions of approval:

- A. WRA protection/minimizing impacts.
  - 1. Development shall be conducted in a manner that will avoid or, if avoidance is not possible, minimize adverse impact on WRAs.
  - 2. Mitigation and re-vegetation of disturbed WRAs shall be completed per CDC 32.090 and 32.100, respectively.
- **<u>Response:</u>** Exhibit A shows that the partition has been configured to minimize impacts to the WRA by establishing a future home site on Parcel 2 that is located outside of the WRA. Impacts to the WRA are planned to be limited to the temporary disturbances necessary to connect a new sanitary service lateral with an existing sanitary main near the west end of Parcel 2. Temporary disturbances in the WRA are not subject to the mitigation requirements in Section 32.090. Temporary disturbances will be revegetated consistent with CDC Section 32.100. The criteria are met.
  - B. Storm water and storm water facilities.
    - 1. Proposed developments shall be designed to maintain the existing WRAs and utilize them as the primary method of storm water conveyance through the project site unless:
      - a. The surface water management plan calls for alternate configurations (culverts, piping, etc.); or
      - b. Under CDC 32.070, the applicant demonstrates that the relocation of the water resource will not adversely impact the function of the WRA including, but not limited to, circumstances where the WRA is poorly defined or not clearly channelized.

Re-vegetation, enhancement and/or mitigation of the re-aligned water resource shall be required as applicable.

**<u>Response:</u>** Conceptual individual stormwater facilities, per the City's typical residential standard, are shown for Parcel 2 (Parcel 1 is currently occupied by a single-family residence which is anticipated to remain). These stormwater facilities are not proposed as part of this application, but are planned to be included as part of a future building permit submittal. This application does not include relocating any water resources on site. At time of building permit submittal, the City will ensure that new stormwater facilities serving



Parcel 2 has been designed pursuant to the applicable standards above. The criteria can be met.

- 2. Public and private storm water detention, storm water treatment facilities and storm water outfall or energy dissipaters (e.g., rip rap) may encroach into the WRA if:
  - a. Accepted engineering practice requires it;
  - b. Encroachment on significant trees shall be avoided when possible, and any tree loss shall be consistent with the City's Tree Technical Manual and mitigated per CDC 32.090;
  - c. There shall be no direct outfall into the water resource, and any resulting outfall shall not have an erosive effect on the WRA or diminish the stability of slopes; and
  - d. There are no reasonable alternatives available.

A geotechnical report may be required to make the determination regarding slope stability.

- **Response:** Conceptual individual stormwater facilities, per the City's typical residential standard, is shown on Parcel 2 (an existing single-family residence is located on Parcel 1 and is anticipated to remain). This application does not include a request for new residential construction, so the associated stormwater facilities are not included. They are planned to be included with a future building permit submittal. This approach ensures flexibility for the location of the stormwater facility in the overall layout of Parcel 2, and ensures that the facilities are appropriately designed to complement new residential development on site. At time of building permit submittal, the City will ensure that new stormwater facilities serving Parcel 2 has been designed pursuant to the applicable standards above. The criteria can be met.
  - 3. Roadside storm water conveyance swales and ditches may be extended within rights-of-way located in a WRA. When possible, they shall be located along the side of the road furthest from the water resource. If the conveyance facility must be located along the side of the road closest to the water resource, it shall be located as close to the road/sidewalk as possible and include habitat friendly design features (treatment train, rain gardens, etc.).
  - 4. Storm water detention and/or treatment facilities in the WRA shall be designed without permanent perimeter fencing and shall be landscaped with native vegetation.
  - 5. Access to public storm water detention and/or treatment facilities shall be provided for maintenance purposes. Maintenance driveways shall be constructed to minimum width and use water permeable paving materials. Significant trees, including roots, shall not be disturbed to the degree possible. The encroachment and any tree loss shall be mitigated per CDC 32.090. There shall also be no adverse impacts upon the hydrologic conditions of the site.
- **<u>Response:</u>** The application does not include new public stormwater facilities or private stormwater facilities located in a public right-of-way or WRA. The criteria do not apply.
  - C. Repealed by Ord. 1647.



D. WRA width. Except for the exemptions in CDC 32.040, applications that are using the alternate review process of CDC 32.070, or as authorized by the approval authority consistent with the provisions of this chapter, all development is prohibited in the WRA as established in Table 32-2 below:

Table 32-2: Required Width of WRA				
Protected WRA Resource	Slope Adjacent to Protected Water Resource <sup>1,3</sup>	Starting Point for Measurement from Water Resource <sup>1,3</sup>	Width of WRA on Each Side of the Water Resource	
A. Water Resource	0 – 25%	OHW or delineated edge of wetland	65 feet	

1 The slope is the average slope in the first 50 feet as measured from bankfull stage or OHW.

3 At least three slope measurements along the water resource, at no more than 100-foot increments, shall be made for each property for which development is proposed. Depending upon topography, the width of the protected corridor may vary.

- **Response:** Per Table 32-2, the width of the WRA on Parcel 2 is 65-feet from the edge of the water resource, as the adjacent slopes are 25% or less (see Exhibit A). The width of the WRA on Parcel 1 increases, as slopes in this area exceed 25%. Impacts to this WRA are planned to be limited to the temporary disturbances necessary to connect a new sanitary sewer laterals to an existing main near the west side of Parcel 2. These temporary utility impacts are permissible. The criterion is met.
  - E. Roads, driveways and utilities.
    - 1. New roads, driveways, or utilities shall avoid WRAs unless the applicant demonstrates that no other practical alternative exists. In that case, road design and construction techniques shall minimize impacts and disturbance to the WRA by the following methods:
      - a. New roads and utilities crossing riparian habitat areas or streams shall be aligned as close to perpendicular to the channel as possible.
      - b. Roads and driveways traversing WRAs shall be of the minimum width possible to comply with applicable road standards and protect public safety. The footprint of grading and site clearing to accommodate the road shall be minimized.
      - c. Road and utility crossings shall avoid, where possible:
        - 1) Salmonid spawning or rearing areas;
        - 2) Stands of mature conifer trees in riparian areas;
        - 3) Highly erodible soils;
        - 4) Landslide prone areas;
        - 5) Damage to, and fragmentation of, habitat; and
        - 6) Wetlands identified on the WRA Map.
- **Response:** Exhibit A shows that the application includes a new sanitary sewer lateral that involves minor temporary impacts to the WRA. The City can find that these impacts result from the most practical connection with an existing sanitary sewer main located near the west side of Parcel 2. This routing is further supported by the existing site topography, and the preference for a gravity sanitary sewer system.



The new sanitary sewer lateral will be located underground and minimize impacts to the WRA by crossing as perpendicular as possible. The new lateral will not impact water resources such as streams, channels, or wetlands. Crossing landslide prone areas (as depicted on the City's Landslide Hazards Map) is unavoidable given the extent of these areas on site. The criteria are met.

- 2. Crossing of fish bearing streams and riparian corridors shall use bridges or arch-bottomless culverts or the equivalent that provides comparable fish protection, to allow passage of wildlife and fish and to retain the natural stream bed.
- 3. New utilities spanning fish bearing stream sections, riparian corridors, and wetlands shall be located on existing roads/bridges, elevated walkways, conduit, or other existing structures or installed underground via tunneling or boring at a depth that avoids tree roots and does not alter the hydrology sustaining the water resource, unless the applicant demonstrates that it is not physically possible or it is cost prohibitive. Bore pits associated with the crossings shall be restored upon project completion. Dry, intermittent streams may be crossed with open cuts during a time period approved by the City and any agency with jurisdiction.
- **<u>Response:</u>** Exhibit A shows that new utilities will not cross any streams, riparian corridors, or wetlands. The criteria do not apply.
  - 4. No fill or excavation is allowed within the ordinary high water mark of a water resource, unless all necessary permits are obtained from the City, U.S. Army Corps of Engineers and Oregon Department of State Lands (DSL).
- **<u>Response:</u>** The application does not include any fill or excavation within the ordinary high water mark of an identified water resource. The criterion does not apply.
  - 5. Crossings of fish bearing streams shall be aligned, whenever possible, to serve multiple properties and be designed to accommodate conduit for utility lines. The applicant shall, to the extent legally permissible, work with the City to provide for a street layout and crossing location that will minimize the need for additional stream crossings in the future to serve surrounding properties.
- **<u>Response:</u>** Exhibit A shows that the new utilities will not cross any streams, riparian corridors, or wetlands. The criterion does not apply.
  - F. Passive recreation. Low impact or passive outdoor recreation facilities for public use including, but not limited to, multi-use paths and trails, not exempted per CDC 32.040(B)(2), viewing platforms, historical or natural interpretive markers, and benches in the WRA, are subject to the following standards:
    - 1. Trails shall be constructed using non-hazardous, water permeable materials with a maximum width of four feet or the recommended width under the applicable American Association of State Highway and Transportation Officials (AASHTO) standards for the expected type and use, whichever is greater.
    - 2. Paved trails are limited to the area within 20 feet of the outer boundary of the WRA, and such trails must comply with the storm water provisions of this chapter.
    - 3. All trails in the WRA shall be set back from the water resource at least 30 feet except at stream crossing points or at points where the topography forces the trail closer to the water resource.



- 4. Trails shall be designed to minimize disturbance to existing vegetation, work with natural contours, avoid the fall line on slopes where possible, avoid areas with evidence of slope failure and ensure that trail runoff does not create channels in the WRA.
- 5. Foot bridge crossings shall be kept to a minimum. When the stream bank adjacent to the foot bridge is accessible (e.g., due to limited vegetation or topography), where possible, fences or railings shall be installed from the foot bridge and extend 15 feet beyond the terminus of the foot bridge to discourage trail users and pets from accessing the stream bank, disturbing wildlife and habitat areas, and causing vegetation loss, stream bank erosion and stream turbidity. Bridges shall not be made of continuous impervious materials or be treated with toxic substances that could leach into the WRA.
- 6. Interpretive facilities (including viewpoints) shall be at least 10 feet from the top of the water resource's bankfull flow/OHW or delineated wetland edge and constructed with a fence between users and the resource. Interpretive signs may be installed on footbridges.
- **<u>Response:</u>** The application does not include any passive recreation facilities. The criteria do not apply.
  - G. Daylighting Piped Streams.
    - 1. As part of any application, covered or piped stream sections shown on the WRA Map are encouraged to be "daylighted" or opened. Once it is daylighted, the WRA will be limited to 15 feet on either side of the stream. Within that WRA, water quality measures are required which may include a storm water treatment system (e.g., vegetated bioswales), continuous vegetative ground cover (e.g., native grasses) at least 15 feet in width that provides year round efficacy, or a combination thereof.
- **<u>Response:</u>** The subject site does not contain covered or piped stream sections as shown on the City's WRA map. The criteria of this section do not apply.
  - H. The following habitat friendly development practices shall be incorporated into the design of any improvements or projects in the WRA to the degree possible:
    - 1. Restore disturbed soils to original or higher level of porosity to regain infiltration and storm water storage capacity.
    - 2. Apply a treatment train or series of storm water treatment measures to provide multiple opportunities for storm water treatment and reduce the possibility of system failure.
    - 3. Incorporate storm water management in road rights-of-way.
    - 4. Landscape with rain gardens to provide on-lot detention, filtering of rainwater, and groundwater recharge.
    - 5. Use multi-functional open drainage systems in lieu of conventional curb-andgutter systems.
    - 6. Use green roofs for runoff reduction, energy savings, improved air quality, and enhanced aesthetics.
    - 7. Retain rooftop runoff in a rain barrel for later on-lot use in lawn and garden watering.
    - 8. Disconnect downspouts from roofs and direct the flow to vegetated infiltration/filtration areas such as rain gardens.



- 9. Use pervious paving materials for driveways, parking lots, sidewalks, patios, and walkways.
- 10. Reduce sidewalk width to a minimum four feet. Grade the sidewalk so it drains to the front yard of a residential lot or retention area instead of towards the street.
- 11. Use shared driveways.
- 12. Reduce width of residential streets and driveways, especially at WRA crossings.
- 13. Reduce street length, primarily in residential areas, by encouraging clustering.
- 14. Reduce cul-de-sac radii and use pervious and/or vegetated islands in center to minimize impervious surfaces.
- 15. Use previously developed areas (PDAs) when given an option of developing PDA versus non-PDA land.
- 16. Minimize the building, hardscape and disturbance footprint.
- 17. Consider multi-story construction over a bigger footprint.
- **<u>Response:</u>** Exhibit A shows that this application includes restoring soils and vegetation that are temporarily disturbed during the construction of the new sanitary sewer lateral for Parcel 2. The Applicant does not anticipate any additional impacts to the WRA at time of new home construction. The criteria are met.
  - 32.090 Mitigation Plan
    - A. A mitigation plan shall only be required if development is proposed within a WRA (including development of a PDA). (Exempted activities of CDC 32.040 do not require mitigation unless specifically stated. Temporarily disturbed areas, including TDAs associated with exempted activities, do not require mitigation, just grade and soil restoration and re-vegetation.) The mitigation plan shall satisfy all applicable provisions of CDC 32.100, Re-Vegetation Plan Requirements.
- **<u>Response:</u>** Exhibit A shows that the application includes temporary disturbances to the WRA that are associated with the construction a new sanitary sewer lateral to serve Parcel 2. Temporary disturbances to soil and vegetation will be restored to a native condition following construction. A mitigation plan is not required for these temporarily disturbed areas, per the section above. The criteria do not apply.
  - 32.100 Re-Vegetation Plan Requirements
    - A. In order to achieve the goal of re-establishing forested canopy, native shrub and ground cover and to meet the mitigation requirements of CDC 32.090 and vegetative enhancement of CDC 32.080, tree and vegetation plantings are required according to the following standards:
      - 1. All trees, shrubs and ground cover to be planted must be native plants selected from the Portland Plant List.
      - 2. Plant size. Replacement trees must be at least one-half inch in caliper, measured at six inches above the ground level for field grown trees or above the soil line for container grown trees (the one-half inch minimum size may be an average caliper measure, recognizing that trees are not uniformly round), unless they are oak or madrone which may be one gallon size. Shrubs



must be in at least a one-gallon container or the equivalent in ball and burlap and must be at least 12 inches in height.

- 3. Plant coverage.
  - a. Native trees and shrubs are required to be planted at a rate of five trees and 25 shrubs per every 500 square feet of disturbance area (calculated by dividing the number of square feet of disturbance area by 500, and then multiplying that result times five trees and 25 shrubs, and rounding all fractions to the nearest whole number of trees and shrubs; for example, if there will be 330 square feet of disturbance area, then 330 divided by 500 equals 0.66, and 0.66 times five equals 3.3, so three trees must be planted, and 0.66 times 25 equals 16.5, so 17 shrubs must be planted). Bare ground must be planted or seeded with native grasses or herbs. Non-native sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.
  - b. Trees shall be planted between eight and 12 feet on center and shrubs shall be planted between four and five feet on center, or clustered in single species groups of no more than four plants, with each cluster planted between eight and 10 feet on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing measurements.
- 4. Plant diversity. Shrubs must consist of at least two different species. If 10 trees or more are planted, then no more than 50 percent of the trees may be of the same genus.
- 5. Invasive vegetation. Invasive non-native or noxious vegetation must be removed within the mitigation area prior to planting.
- 6. Tree and shrub survival. A minimum survival rate of 80 percent of the trees and shrubs planted is expected by the third anniversary of the date that the mitigation planting is completed.
- 7. Monitoring and reporting. Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die must be replaced in kind.
- 8. To enhance survival of tree replacement and plantings, the following practices are required:
  - a. Mulching. Mulch new plantings a minimum of three inches in depth and 18 inches in diameter to retain moisture and discourage weed growth.
  - b. Irrigation. Water new plantings one inch per week between June 15th to October 15th, for the three years following planting.
  - c. Weed control. Remove, or control, non-native or noxious vegetation throughout maintenance period.
  - d. Planting season. Plant bare root trees between December 1st and February 28th, and potted plants between October 15th and April 30th.
  - e. Wildlife protection. Use plant sleeves or fencing to protect trees and shrubs against wildlife browsing and resulting damage to plants.
- B. When weather or other conditions prohibit planting according to schedule, the applicant shall ensure that disturbed areas are correctly protected with erosion control measures and shall provide the City with funds in the amount of 125 percent of a bid



from a recognized landscaper or nursery which will cover the cost of the plant materials, installation and any follow up maintenance. Once the planting conditions are favorable the applicant shall proceed with the plantings and receive the funds back from the City upon completion, or the City will complete the plantings using those funds.

**<u>Response:</u>** The application does not include any impacts that warrant revegetation in the manner prescribed in this section. Temporary disturbances to the WRA from constructing a new sanitary sewer lateral serving Parcel 2 are planned to be restored with native grasses and other native vegetation that will not impede new underground utilities. The Applicant does not anticipate additional impacts to the WRA at time of new home construction. To the extent these criteria apply, they are met.

#### 32.120 WRA Map

- A. The WRA Map, dated May 2014, is adopted as the official WRA Map. It is intended to identify WRA water features (wetlands, streams, ephemeral streams and riparian corridors). It is not intended to delineate the exact WRA boundaries or water feature alignment. That task will be carried out by staff in the course of site visits where the provisions of Table 32-2 shall apply.
- B. Amendments to the WRA Map may be made in accordance with the provisions of Chapters 98 and 99 CDC. Copies of all map amendments shall be dated with the effective date of the document adopting the map amendment and shall be maintained without change, together with the adopting documents, on file in the Planning Department.
- C. The Planning Director shall maintain in his or her office, and available for public inspection, an up-to-date copy of the WRA Map
- **Response:** The location of the WRA is included in Exhibit A and is based on the City's WRA map and field surveys conducted by a professional natural resource scientist (AKS Engineering & Forestry).

#### Chapter 48 - ACCESS, EGRESS AND CIRCULATION

#### 48.020 Applicability And General Provisions

- A. The provisions of this chapter do not apply where the provisions of the Transportation System Plan or land division chapter are applicable and set forth differing standards.
- B. All lots shall have access from a public street or from a platted private street approved under the land division chapter.
- **<u>Response:</u>** Exhibit A shows that both parcels have access from Evah Lane, which is a public street. TSP standards are addressed, where they deviate from standards established in this section, below. The criteria are met.
  - C. No building or other permit shall be issued until scaled plans are presented to the City and approved by the City as provided by this chapter, and show how the access, egress, and circulation requirements are to be fulfilled. Access to State or County roads may require review, approval, and permits from the appropriate authority.
  - D. Should the owner or occupant of a lot, parcel or building enlarge or change the use to which the lot, parcel or building is put, resulting in increasing any of the requirements of this chapter, it shall be unlawful and a violation of this code to begin or maintain such altered use until the provisions of this chapter have been met, and, if required, until the appropriate approval authority under Chapter 99 CDC has approved the change.



- E. Owners of two or more uses, structures, lots, parcels, or units of land may agree to utilize jointly the same access and egress when the combined access and egress of both uses, structures, or parcels of land satisfies the requirements as designated in this code; provided, that satisfactory legal evidence is presented to the City Attorney in the form of deeds, easements, leases, or contracts to establish joint use. Copies of said instrument shall be placed on permanent file with the City Recorder.
- Response:Parcel 1 will retain frontage on 14th Street and will have access from this street and Evah<br/>Lane. An access easement on Parcel 2 will provide legal access to Parcel 1 from Evah Lane.<br/>Parcel 2 will have direct access from the south terminus of Evah Lane. The criteria are<br/>met.
  - F. Property owners shall not be compelled to access their homes via platted stems of flag lots if other driveways and easements are available and approved by the City Engineer.
- **<u>Response:</u>** Parcel 1 will have direct access from both 14th Street and from Evah Lane via an easement across Parcel 2. Parcel 2 will have direct access from Evah Lane.
  - 48.025 Access Control
    - A. Purpose. The following access control standards apply to public, industrial, commercial and residential developments including land divisions. Access shall be managed to maintain an adequate level of service and to maintain the functional classification of roadways as required by the West Linn Transportation System Plan.
    - B. Access control standards.
      - 1. Traffic impact analysis requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also CDC 55.125, Traffic Impact Analysis.)
      - 2. The City or other agency with access permit jurisdiction may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system. Access to and from off-street parking areas shall not permit backing onto a public street.
      - 3. Access options. When vehicle access is required for development (i.e., for offstreet parking, delivery, service, drive-through facilities, etc.), access shall be provided by one of the following methods (planned access shall be consistent with adopted public works standards and TSP). These methods are "options" to the developer/subdivider.
        - a) Option 1. Access is from an existing or proposed alley or mid-block lane. If a property has access to an alley or lane, direct access to a public street is not permitted.
        - b) Option 2. Access is from a private street or driveway connected to an adjoining property that has direct access to a public street (i.e., "shared driveway"). A public access easement covering the driveway shall be recorded in this case to assure access to the closest public street for all users of the private street/drive.



- c) Option 3. Access is from a public street adjacent to the development lot or parcel. If practicable, the owner/developer may be required to close or consolidate an existing access point as a condition of approving a new access. Street accesses shall comply with the access spacing standards in subsection (B)(6) of this section.
- **Response:** Access to these lots, as shown in Exhibit A, was developed after consultation with the City's Planning and Engineering staff. It reflects the strategy identified in Options 2 (3b) and 3 (3c) above. This application does not meet the warrant for a traffic impact analysis due to the low volume of vehicle trips that are expected to be generated. The criteria are met.
  - 4. Subdivisions fronting onto an arterial street. New residential land divisions fronting onto an arterial street shall be required to provide alleys or secondary (local or collector) streets for access to individual lots. When alleys or secondary streets cannot be constructed due to topographic or other physical constraints, access may be provided by consolidating driveways for clusters of two or more lots (e.g., includes flag lots and mid-block lanes).
- **<u>Response</u>**: The subject site does not front an arterial street as designated in the City's TSP. The criterion does not apply.
  - 5. Double-frontage lots. When a lot or parcel has frontage onto two or more streets, access shall be provided first from the street with the lowest classification. For example, access shall be provided from a local street before a collector or arterial street. When a lot or parcel has frontage opposite that of the adjacent lots or parcels, access shall be provided from the street with the lowest classification.
- **<u>Response:</u>** The application does not include any parcels that will front on more than one public street or parcels that may be defined as double-frontage lots. This criterion does not apply.
  - 6. Access spacing.
    - a. The access spacing standards found in the adopted Transportation System Plan (TSP) shall be applicable to all newly established public street intersections and non-traversable medians. Deviation from the access spacing standards may be granted by the City Engineer if conditions are met as described in the access spacing variances section in the adopted TSP.
    - b. Private drives and other access ways are subject to the requirements of CDC 48.060.
- **Response:** Exhibit A shows that the application does not create any new public street intersections. Responses to the applicable criteria in CDC Section 48.060 are included below.
  - 7. Number of access points. For single-family (detached and attached), twofamily, and duplex housing types, one street access point is permitted per lot or parcel, when alley access cannot otherwise be provided; except that two access points may be permitted corner lots (i.e., no more than one access per street), subject to the access spacing standards in subsection (B)(6) of this section. The number of street access points for multiple family, commercial, industrial, and public/institutional developments shall be minimized to protect the function, safety and operation of the street(s) and sidewalk(s) for all users. Shared access may be required, in conformance with subsection



(B)(8) of this section, in order to maintain the required access spacing, and minimize the number of access points.

- 8. Shared driveways. The number of driveway and private street intersections with public streets shall be minimized by the use of shared driveways with adjoining lots where feasible. The City shall require shared driveways as a condition of land division or site design review, as applicable, for traffic safety and access management purposes in accordance with the following standards:
  - a. Shared driveways and frontage streets may be required to consolidate access onto a collector or arterial street. When shared driveways or frontage streets are required, they shall be stubbed to adjacent developable parcels to indicate future extension. "Stub" means that a driveway or street temporarily ends at the property line, but may be extended in the future as the adjacent lot or parcel develops. "Developable" means that a lot or parcel is either vacant or it is likely to receive additional development (i.e., due to infill or redevelopment potential).
  - b. Access easements (i.e., for the benefit of affected properties) shall be recorded for all shared driveways, including pathways, at the time of final plat approval or as a condition of site development approval.
  - c. Exception. Shared driveways are not required when existing development patterns or physical constraints (e.g., topography, lot or parcel configuration, and similar conditions) prevent extending the street/driveway in the future.
- **<u>Response:</u>** This application provides access to Parcels 1 and 2 from Evah Lane. An access easement on Parcel 2, will maintain access to Parcel 1 from Evah Lane. This shared access approach is consistent with the City's desire to maintain the operation of adjacent roadways as implied above. The criteria are met.
  - C. Street connectivity and formation of blocks required. In order to promote efficient vehicular and pedestrian circulation throughout the City, land divisions and large site developments shall produce complete blocks bounded by a connecting network of public and/or private streets, in accordance with the following standards:
    - 1. Block length and perimeter. The maximum block length shall not exceed 800 feet or 1,800 feet along an arterial.
    - 2. Street standards. Public and private streets shall also conform to Chapter 92 CDC, Required Improvements, and to any other applicable sections of the West Linn Community Development Code and approved TSP.
    - 3. Exception. Exceptions to the above standards may be granted when blocks are divided by one or more pathway(s), in conformance with the provisions of CDC 85.200(C), Pedestrian and Bicycle Trails, or cases where extreme topographic (e.g., slope, creek, wetlands, etc.) conditions or compelling functional limitations preclude implementation, not just inconveniences or design challenges.
- **<u>Response:</u>** Existing development and natural resource protection areas near the project site do not permit creating any new public streets or blocks. These criteria do not apply.
  - 48.030 Minimum Vehicular Requirements For Residential Uses
    - A. Direct individual access from single-family dwellings and duplex lots to an arterial street, as designated in the transportation element of the Comprehensive Plan, is



prohibited for lots or parcels created after the effective date of this code where an alternate access is either available or is expected to be available by imminent development application. Evidence of alternate or future access may include temporary cul-de-sacs, dedications or stubouts on adjacent lots or parcels, or tentative street layout plans submitted at one time by adjacent property owner/developer or by the owner/developer, or previous owner/developer, of the property in question.

In the event that alternate access is not available as determined by the Planning Director and City Engineer, access may be permitted after review of the following criteria:

- **<u>Response:</u>** This application does not include parcels that will take direct individual access from an arterial street. The criteria of this section do not apply.
  - B. When any portion of any house is less than 150 feet from the adjacent right-of-way, access to the home is as follows:
    - 1. One single-family residence, including residences with an accessory dwelling unit as defined in CDC 02.030, shall provide 10 feet of unobstructed horizontal clearance. Dual-track or other driveway designs that minimize the total area of impervious driveway surface are encouraged.
    - 2. Two to four single-family residential homes equals a 14- to 20-foot-wide paved or all-weather surface. Width shall depend upon adequacy of line of sight and number of homes.
    - 3. Maximum driveway grade shall be 15 percent. The 15 percent shall be measured along the centerline of the driveway only. Variations require approval of a Class II variance by the Planning Commission pursuant to Chapter 75 CDC. Regardless, the last 18 feet in front of the garage shall be under 12 percent grade as measured along the centerline of the driveway only. Grades elsewhere along the driveway shall not apply.
    - 4. The driveway shall include a minimum of 20 feet in length between the garage door and the back of sidewalk, or, if no sidewalk is proposed, to the paved portion of the right-of-way.
  - C. When any portion of one or more homes is more than 150 feet from the adjacent rightof-way, the provisions of subsection B of this section shall apply in addition to the following provisions.
    - 1. A turnaround may be required as prescribed by the Fire Chief.
    - 2. Minimum vertical clearance for the driveway shall be 13 feet, six inches.
    - 3. A minimum centerline turning radius of 45 feet is required unless waived by the Fire Chief.
    - 4. There shall be sufficient horizontal clearance on either side of the driveway so that the total horizontal clearance is 20 feet.
- **Response:** Access to Parcel 2 will come directly from Evah Lane. Access to Parcel 1 will come from Evah Lane via an access easement across Parcel 2 and from the existing access point on 14th Street. The application does not create any new access points or public street intersections and therefore will not exacerbate any non-conforming access issues to the extent such issues exist.

The future home on Parcel 2 will be less than 150-feet from the adjacent Evah Lane rightof-way, and the shared access will serve no more than four total residences at time of full build-out. The existing home on Parcel 1 is further than 150-feet from an adjacent public



right-of-way and does, and will continue to, provide 10-feet of unobstructed width from the adjacent public right-of-way. This access configuration was discussed and preliminarily accepted by Tualatin Valley Fire and Rescue's representative at the October 20 pre-application conference. Exhibit A shows that the shared access ranges in width from 10- to 20-feet and will be less than 15% grade. The applicable criteria are met.

- D. Access to five or more single-family homes shall be by a street built to full construction code standards. All streets shall be public. This full street provision may only be waived by variance.
- E. Access and/or service drives for multi-family dwellings shall be fully improved with hard surface pavement:

(...)

- **Response:** This application does not include a request for, nor does the R-10 zoning district allow for, the development of multi-family residential on the subject property. The criteria do not apply.
  - F. Where on-site maneuvering and/or access drives are necessary to accommodate required parking, in no case shall said maneuvering and/or access drives be less than that required in Chapters 46 and 48 CDC.
  - G. The number of driveways or curb cuts shall be minimized on arterials or collectors. Consolidation or joint use of existing driveways shall be required when feasible.
  - H. In order to facilitate through traffic and improve neighborhood connections, it may be necessary to construct a public street through a multi-family site.
  - I. Gated accessways to residential development other than a single-family home are prohibited.
- **<u>Response:</u>** On-site parking will be accommodated for each parcel and will be further defined at time of building permit submittal. The site does not take access from an arterial or collector roadway, nor does it propose or abut a multi-family development. The application does not include a request for a gated accessway to the three parcels subject to this application. The criteria do not apply.
  - 48.050 One-Way Vehicular Access Points

Where a proposed parking facility plan indicates only one-way traffic flow on the site, it shall be accommodated by a specific driveway serving the facility, and the entrance drive shall be situated closest to oncoming traffic, and the exit drive shall be situated farthest from oncoming traffic.

- **<u>Response:</u>** This application does not include a parking facility. The criterion does not apply.
  - 48.060 Width And Location Of Curb Cuts And Access Separation Requirements
    - A. Minimum curb cut width shall be 16 feet.
    - B. Maximum curb cut width shall be 36 feet, except along Highway 43 in which case the maximum curb cut shall be 40 feet. For emergency service providers, including fire stations, the maximum shall be 50 feet.
    - C. No curb cuts shall be allowed any closer to an intersecting street right-of-way line than the following:
      - 1. On an arterial when intersected by another arterial, 150 feet.


- 2. On an arterial when intersected by a collector, 100 feet.
- 3. On an arterial when intersected by a local street, 100 feet.
- 4. On a collector when intersecting an arterial street, 100 feet.
- 5. On a collector when intersected by another collector or local street, 35 feet.
- 6. On a local street when intersecting any other street, 35 feet.
- D. There shall be a minimum distance between any two adjacent curb cuts on the same side of a public street, except for one-way entrances and exits, as follows:
  - 1. On an arterial street, 150 feet.
  - 2. On a collector street, 75 feet.
  - 3. Between any two curb cuts on the same lot or parcel on a local street, 30 feet.
- E. A rolled curb may be installed in lieu of curb cuts and access separation requirements.
- F. Curb cuts shall be kept to the minimum, particularly on Highway 43. Consolidation of driveways is preferred. The standard on Highway 43 is one curb cut per business if consolidation of driveways is not possible.
- G. Adequate line of sight pursuant to engineering standards should be afforded at each driveway or accessway.
- **<u>Response:</u>** Exhibit A shows that this portion of Evah Lane does not include a curb, nor is one proposed. The two parcels included in this application will access Evah Lane directly or via an easement on Parcel 2. The criteria do not apply.
  - 48.070 Planning Director's Authority To Restrict Access Appeal Provisions
    - A. In order to provide for increased traffic movement on congested streets and eliminate turning movement problems, the Planning Director and the City Engineer, or his or her designee, may restrict the location of driveways on said street and require the location of driveways on adjacent streets upon the finding that the proposed access would:
      - 1. Provide inadequate access for emergency vehicles; or
      - 2. Cause or increase hazardous conditions to exist which would constitute a clear and present danger to the public health safety and general welfare.
    - B. A decision by the Planning Director may be appealed to the Planning Commission as provided by CDC 99.240(B).
- **<u>Response:</u>** Exhibit A shows that the application does not include any new access points. The criteria do not apply.
  - 48.080 Bicycle And Pedestrian Circulation
    - A. Within all multi-family developments (except two-family/duplex dwellings), each residential dwelling shall be connected to vehicular parking stalls, common open space, and recreation facilities by a pedestrian pathway system having a minimum width of six feet and constructed of an all-weather material. The pathway material shall be of a different color or composition from the driveway. (Bicycle routes adjacent to the travel lanes do not have to be of different color or composition.)
    - B. Bicycle and pedestrian ways within a subdivision shall be constructed according to the provisions in CDC 85.200(A)(3).



- C. Bicycle and pedestrian ways at commercial or industrial sites shall be provided according to the provisions of Chapter 55 CDC, Design Review.
- **<u>Response:</u>** The application does not include any multi-family, commercial, or industrial development, nor does it propose any new bicycle or pedestrian ways. The criteria do not apply.

# Chapter 85 - DIVISION 8. LAND DIVISION

85.070 Administration And Approval Process

- A. The application shall be filed by the record owner(s) of the property or by an authorized agent who has a letter of authorization from the property owners of record. The burden of proof will be upon the applicant to demonstrate the validity of the ownership, if challenged.
- B. Action on the application for a tentative plan shall be as provided by Chapter 99 CDC.
  - 1. The Planning Director shall approve, deny, or approve with conditions an application for a partition subject to the provisions of CDC 85.200, 99.060(A), and 99.110. The Director's decision may be appealed to the City Council as provided by CDC 99.240(A).
- **<u>Response:</u>** This application has been consented to by the property owner of record as shown in Exhibit B. The partition will be decided by the Planning Director, subject to the provisions referenced above. The criteria are met.
  - 85.110 Staged Development

The applicant may elect to develop the site in stages. Staged development shall be subject to the provisions of CDC 99.125. However, notwithstanding the provisions of CDC 99.125, in no case shall the time period for final platting and recording all stages with the County be greater than five years without refiling the application.

- **<u>Response:</u>** The partition will be completed in a single phase, and the Applicant anticipates recording the final plat within the appropriate timeframe. The criterion is met.
  - 85.120 Partial Development

Where the tentative subdivision or partition plan is limited to only part of the potential development site, the approval authority may require that an applicant submit a tentative layout for the streets for the unsubdivided portion. A tentative street plan is required for sites where the unsubdivided portion of the property is greater than 300 percent of the minimum lot size allowed in the underlying zoning district.

- **<u>Response:</u>** The subject partition does not result in lots that may be further divided. The criterion does not apply.
  - 85.130 Land Division Application In Conjunction With Other Land Use Applications

As provided by CDC 99.070, a land division application filed under this code may be heard concurrently with another application, upon applicant's request.

- **<u>Response:</u>** This application includes a request for a land division, a water resource area permit, a Tualatin River Greenway permit, and a flood management area permit.
  - 85.140 Pre-Application Conference Required
    - A. An applicant shall participate in a pre-application conference with staff prior to the submission of a complete tentative plan.



- B. The Planning staff shall explain the applicable plan policies, ordinance provisions, opportunities, and constraints which may be applicable to the site and type of proposed land division.
- C. The City Engineering staff shall explain the public improvement requirements which may be applicable to the site and type of proposed land division, including potential for the applicant to apply for a waiver of street improvements.
- **<u>Response:</u>** A pre-application conference with City of West Linn staff was held on October 20, 2016. The criteria are met.
  - 85.150 Application Tentative Plan
    - A. The applicant shall submit a completed application which shall include:
      - 1. The completed application form(s).
      - 2. Copies of the tentative plan and supplemental drawings shall include one copy at the original scale plus one copy reduced in paper size not greater than 11 inches by 17 inches. The applicant shall also submit one copy of the complete application in a digital format acceptable to the City. When the application submittal is determined to be complete, additional copies may be required as determined by the Community Development Department.
      - 3. A narrative explaining all aspects of land division per CDC 85.200.
    - **B.** The applicant shall pay the requisite fee.
- **<u>Response:</u>** This application and the accompanying exhibits include all documents and fees as requested. The criteria are met.
  - 85.160 Submittal Requirements For Tentative Plan
    - A. A City-wide map shall identify the site. A vicinity map covering one-quarter-mile radius from the development site shall be provided in the application showing existing subdivisions, streets, and unsubdivided land ownerships adjacent to the proposed subdivision and showing how proposed streets and utilities may be extended to connect to existing streets and utilities.
    - B. The tentative subdivision plan shall be prepared by a registered civil engineer and/or a licensed land surveyor. A stamp and signature of the engineer or surveyor shall be included on the tentative subdivision plan. A tentative minor partition plan (three lots or less) is only required to be drawn to scale and does not have to be prepared by an engineer or surveyor.
    - C. The tentative plan of a subdivision or partition shall be drawn at a scale not smaller than one inch equals 100 feet, or, for areas over 100 acres, one inch equals 200 feet.
    - D. The following general information shall be shown on the tentative plan of subdivision or partition:
      - 1. Proposed name of the subdivision and streets; these names shall not duplicate nor resemble the name of any other subdivision or street in the City and shall be determined by the City Manager or designee. Street names should be easily spelled, pronounced, and of limited length. All new street names must, to the greatest extent possible, respect and be representative of the surrounding geography and existing street names. Street names should consider any prominent historical City figures or neighborhood themes that exist. Subdivision street names may not reference names of the builder or developer.
      - 2. Date, north arrow, scale of drawing, and graphic bar scale.



- 3. Appropriate identification clearly stating the drawing as a tentative plan.
- 4. Location of the proposed division of land, with a tie to the City coordinate system, where established, and a description sufficient to define its location and boundaries, and a legal description of the tract boundaries.
- 5. Names and addresses of the owner, developer, and engineer or surveyor.
- E. The following existing conditions shall be shown on the tentative plan of a subdivision or partition:
  - 1. The location, widths, and names of all existing or platted streets and rightsof-way within or adjacent to the tract (within 50 feet), together with easements and other important features such as section lines, donation land claim corners, section corners, City boundary lines, and monuments.
  - 2. Contour lines related to the U.S. Geological Survey datum or some other established benchmark, or other datum approved by the Planning Director and having the following minimum intervals:
    - a. Two-foot contour intervals for ground slopes less than 20 percent.
    - b. Five-foot contour intervals for ground slopes exceeding 20 percent.
  - 3. The location of any control points that are the basis for the applicant's mapping.
  - 4. The location, by survey, and direction of all watercourses and areas subject to periodic inundation or storm drainageway overflow or flooding, including boundaries of flood hazard areas as established by the U.S. Army Corps of Engineers or the City zoning ordinance.
  - 5. Natural features such as rock outcroppings, wetlands tied by survey, wooded areas, heritage trees, and isolated trees (six-inch diameter at five feet above grade) identified by size, type, and location. All significant trees and tree clusters identified by the City Arborist using the criteria of CDC 55.100(B)(2), and all heritage trees, shall be delineated. Trees on non-Type I and II lands shall have their "dripline plus 10 feet" protected area calculated per CDC 55.100(B)(2) and expressed in square feet, and also as a percentage of total non-Type I and II area.
  - 6. Existing uses of the property, including location of all existing structures. Label all structures to remain on the property after platting.
  - 7. Identify the size and location of existing sewers, water mains, culverts, drain pipes, gas, electric, and other utility lines within the site, and in the adjoining streets and property.
  - 8. Zoning on and adjacent to the tract.
  - 9. Existing uses to remain on the adjoining property and their scaled location.
  - 10. The location of any existing bicycle or pedestrian ways.
  - 11. The location of adjacent transit stops.
- F. The following proposed improvements shall be shown on the tentative plan or supplemental drawings:
  - 1. The street street location, proposed name, right-of-way width, and approximate radius of curves of each proposed street and street grades. Proposed street names shall comply with the street naming method explained in CDC 85.200(A)(12).



- The type, method, and location of any erosion prevention and sediment control measures and/or facilities in accordance with the most current version of Clackamas County's Erosion/Sedimentation Control Plans Technical Guidance Handbook, which are necessary to prevent and control visible or measurable erosion as determined by the following criteria:

   a. Deposition of soil, sand, dirt, dust, mud, rock, gravel, refuse, or any other organic or inorganic material exceeding one cubic foot in
  - other organic or inorganic material exceeding one cubic foot in volume in a public right-of-way or public property, or into the City surface water management system either by direct deposit, dropping, discharge, or as a result of erosion; or
  - b. Flow of water over bare soils, turbid or sediment-laden flows, or evidence of on-site erosion such as rivulets or bare soil slopes, where the flow of water is not filtered or captured on the development site; or
  - c. Earth slides, mud flows, land slumping, slope failure, or other earth movement that is likely to leave the property of origin.

Additional on-site measures may later be required if original measures prove to be inadequate in meeting these attainment standards. For the purposes of this code, "one cubic foot in volume" is defined to include the volume of material, wet or dry, at the time of deposition and includes any water of a discolored or turbid nature.

- 3. Any proposed infrastructure improvements that address those identified in the City Transportation System Plan.
- 4. Any proposed bicycle or pedestrian paths. The location of proposed transit stops.
- 5. Any easement(s) location, width, and purpose of the easement(s).
- 6. The configuration including location and approximate dimensions and area of each lot or parcel, and in the case of a subdivision, the proposed lot and block number.
- 7. A street tree planting plan and schedule approved by the Parks Department.
- 8. Any land area to be dedicated to the City or put in common ownership.
- 9. Phase boundaries shall be shown.
- **<u>Response:</u>** This application includes the applicable submittal requirements listed above.
  - 85.170 Supplemental Submittal Requirements For Tentative Subdivision Or Partition Plan

The following information shall be submitted to supplement the tentative subdivision plan:

- A. General.
  - 1. Narrative stating how the plan meets each of the applicable approval criteria and each subsection below.
  - 2. Statement or affidavit of ownership of the tract (County Assessor's map and tax lot number).
  - 3. A legal description of the tract.
  - 4. If the project is intended to be phased, then such a proposal shall be submitted at this time with drawing and explanation as to when each phase will occur and which lots will be in each phase.



- 5. Where the land to be subdivided or partitioned contains only a part of the contiguous land owned by the developer, the Commission or Planning Director, as applicable, shall require a master plan of the remaining portion illustrating how the remainder of the property may suitably be subdivided.
- 6. Where the proposed subdivision site includes hillsides, as defined in CDC 02.030 Type I and II lands, or any lands identified as a hazard site in the West Linn Comprehensive Inventory Plan Report, the requirements for erosion control as described in CDC 85.160(F)(2) shall be addressed in a narrative.
- 7. Table and calculations showing the allowable number of lots under the zone and how many lots are proposed.
- 8. Map and table showing square footage of site comprising slopes by various classifications as identified in CDC 55.110(B)(3).
- **Response:** This application includes the applicable submittal requirements listed above.
  - B. Transportation.
    - 1. Centerline profiles with extensions shall be provided beyond the limits of the proposed subdivision to the point where grades meet, showing the finished grade of streets and the nature and extent of street construction. Where street connections are not proposed within or beyond the limits of the proposed subdivision on blocks exceeding 330 feet, or for cul-de-sacs, the tentative plat or partition shall indicate the location of easements that provide connectivity for bicycle and pedestrian use to accessible public rights-of-way.
- **<u>Response:</u>** The application does not include the creation of any new streets or extensions of streets to abutting properties. Exhibit A illustrates the location of all easements on the subject property that will provide access to abutting rights-of-way. The criterion is met.
  - 2. Traffic Impact Analysis (TIA).
    - a. Purpose. The purpose of this section of the code is to implement Section 660-012-0045(2)(e) of the State Transportation Planning Rule that requires the City to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the study.
    - b. Typical average daily trips. The latest edition of the Trip Generation manual, published by the Institute of Transportation Engineers (ITE) shall be used as the standards by which to gauge average daily vehicle trips.
    - c. When required. A Traffic Impact Analysis may be required to be submitted to the City with a land use application, when the following conditions apply:
      - 1) The development application involves one or more of the following actions:
        - (A) A change in zoning or a plan amendment designation; or



- (B) Any proposed development or land use action that ODOT states may have operational or safety concerns along a State highway; and
- (C) The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation manual; and information and studies provided by the local reviewing jurisdiction and/or ODOT:
  - (1) An increase in site traffic volume generation by 250 average daily trips (ADT) or more (or as required by the City Engineer); or
  - (2) An increase in use of adjacent streets by vehicles exceeding the 20,000-pound gross vehicle weights by 10 vehicles or more per day; or
  - (3) The location of the access driveway does not meet minimum intersection sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the State highway, creating a safety hazard; or
  - (4) The location of the access driveway does not meet the access spacing standard of the roadway on which the driveway is located; or
  - (5) A change in internal traffic patterns that may cause safety problems, such as backup onto the highway or traffic crashes in the approach area.
- **<u>Response:</u>** This application does not warrant a traffic impact analysis as required above. The criteria of this section do not apply.
  - C. Grading.
    - 1. If areas are to be graded, a plan showing the location of cuts, fill, and retaining walls, and information on the character of soils shall be provided. The grading plan shall show proposed and existing contours at intervals per CDC 85.160(E)(2).
    - 2. The grading plan shall demonstrate that the proposed grading to accommodate roadway standards and create appropriate building sites is the minimum amount necessary.
- **<u>Response:</u>** Exhibit A shows that the application does not include any site grading. The criteria do not apply.
  - D. Water.
    - 1. A plan for domestic potable water supply lines and related water service facilities, such as reservoirs, etc., shall be prepared by a licensed engineer



consistent with the adopted Comprehensive Water System Plan and most recently adopted updates and amendments.

- 2. Location and sizing of the water lines within the development and off-site extensions. Show on-site water line extensions in street stubouts to the edge of the site, or as needed to complete a loop in the system.
- 3. Adequate looping system of water lines to enhance water quality.
- 4. For all non-single-family developments, calculate fire flow demand of the site and demonstrate to the Fire Chief. Demonstrate to the City Engineer how the system can meet the demand.
- **Response:** Exhibit A shows that new water service laterals are planned to be extended to Parcel 2 from an existing water main in Evah Lane. The applicable criteria are met.
  - E. Sewer.
    - 1. A plan prepared by a licensed engineer shall show how the proposal is consistent with the Sanitary Sewer Master Plan and subsequent updates and amendments. Agreement with that plan must demonstrate how the sanitary sewer proposal will be accomplished and how it is efficient. The sewer system must be in the correct zone.
    - 2. Sanitary sewer information will include plan view of the sanitary sewer lines, including manhole locations and depths. Show how each lot or parcel would be sewered.
    - 3. Sanitary sewer lines shall be located in the public right-of-way, particularly the street, unless the applicant can demonstrate why the alternative location is necessary and meets accepted engineering standards.
    - 4. Sanitary sewer line should be at a depth that can facilitate connection with down-system properties in an efficient manner.
    - 5. The sanitary sewer line should be designed to minimize the amount of lineal feet in the system.
    - 6. The sanitary sewer line shall minimize disturbance of natural areas and, in those cases where that is unavoidable, disturbance shall be mitigated pursuant to the appropriate chapters (e.g., Chapter 32 CDC, Water Resource Area Protection).
    - 7. Sanitary sewer shall be extended or stubbed out to the next developable subdivision or a point in the street that allows for reasonable connection with adjacent or nearby properties.
    - 8. The sanitary sewer system shall be built pursuant to Department of Environmental Quality (DEQ), City, and Tri-City Service District sewer standards. This report should be prepared by a licensed engineer, and the applicant must be able to demonstrate the ability to satisfy these submittal requirements or standards at the pre-construction phase.
- **<u>Response:</u>** This application does not include any new public sanitary sewer lines or facilities. A new sanitary sewer lateral is planned to connect Parcel 2 with an existing sanitary sewer main located near its west side. Installation of this sanitary lateral results in minor temporary disturbance to natural areas, however, these disturbances are planned to be restored following construction. The applicable criteria are met.



- F. Storm. A proposal shall be submitted for storm drainage and flood control including profiles of proposed drainageways with reference to the most recently adopted Storm Drainage Master Plan.
- **Response:** The application does not include new public or private stormwater facilities. Conceptual private stormwater facilities are included in Exhibit A and illustrate the type and location of stormwater management that may be used during new home construction. The City will ensure that stormwater has been managed pursuant to applicable criteria when the building permit application is submitted. The criterion can be met.
  - 85.180 Redivision Plan Requirement

A redivision plan shall be required for a partition or subdivision, where the property could be developed at a higher density, under existing/proposed zoning, if all services were available and adequate to serve the use.

- **Response:**The application will not result in any parcels that can be further divided under the existing<br/>R-10 zoning designation or applicable overlay districts. The criteria do not apply.
  - 85.200 Approval Criteria

No tentative subdivision or partition plan shall be approved unless adequate public facilities will be available to provide service to the partition or subdivision area prior to final plat approval and the Planning Commission or Planning Director, as applicable, finds that the following standards have been satisfied, or can be satisfied by condition of approval.

A. Streets.

1.

General. The location, width and grade of streets shall be considered in their relation to existing and planned streets, to the generalized or reasonable layout of streets on adjacent undeveloped lots or parcels, to topographical conditions, to public convenience and safety, to accommodate various types of transportation (automobile, bus, pedestrian, bicycle), and to the proposed use of land to be served by the streets. The functional class of a street aids in defining the primary function and associated design standards for the facility. The hierarchy of the facilities within the network in regard to the type of traffic served (through or local trips), balance of function (providing access and/or capacity), and the level of use (generally measured in vehicles per day) are generally dictated by the functional class. The street system shall assure an adequate traffic or circulation system with intersection angles, grades, tangents, and curves appropriate for the traffic to be carried. Streets should provide for the continuation, or the appropriate projection, of existing principal streets in surrounding areas and should not impede or adversely affect development of adjoining lands or access thereto.

To accomplish this, the emphasis should be upon a connected continuous pattern of local, collector, and arterial streets rather than discontinuous curvilinear streets and cul-de-sacs. Deviation from this pattern of connected streets should only be permitted in cases of extreme topographical challenges including excessive slopes (35 percent-plus), hazard areas, steep drainageways, wetlands, etc. In such cases, deviations may be allowed but the connected continuous pattern must be reestablished once the topographic challenge is passed. Streets should be oriented with consideration of the sun, as site conditions allow, so that over 50 percent of the front building lines of homes are oriented within 30 degrees of an east-west axis.

Internal streets are the responsibility of the developer. All streets bordering the development site are to be developed by the developer with, typically, halfstreet improvements or to City standards prescribed by the City Engineer.



Additional travel lanes may be required to be consistent with adjacent road widths or to be consistent with the adopted Transportation System Plan (TSP) and any adopted updated plans.

An applicant may submit a written request for a waiver of abutting street improvements if the TSP prohibits the street improvement for which the waiver is requested. Those areas with numerous (particularly contiguous) under-developed or undeveloped tracts will be required to install street improvements. When an applicant requests a waiver of street improvements and the waiver is granted, the applicant shall pay an in-lieu fee equal to the estimated cost, accepted by the City Engineer, of the otherwise required street improvements. As a basis for this determination, the City Engineer shall consider the cost of similar improvements in recent development projects and may require up to three estimates from the applicant. The amount of the fee shall be established prior to the Planning Commission's decision on the associated application. The in-lieu fee shall be used for in kind or related improvements.

Streets shall also be laid out to avoid and protect tree clusters and significant trees, but not to the extent that it would compromise connectivity requirements per this subsection (A)(1), or bring the density below 70 percent of the maximum density for the developable net area. The developable net area is calculated by taking the total site acreage and deducting Type I and II lands; then up to 20 percent of the remaining land may be excluded as necessary for the purpose of protecting significant tree clusters or stands as defined in CDC 55.100(B)(2).

- **Response:** Given the pattern of existing development and topographical constraints near the subject site, the application does not include any additional public street improvements in the Evah Lane right-of-way (Evah Lane improvements were recently agreed to by the City and the Applicant during a 3-parcel partition of Tax Lot 3800 immediately west of the subject site). The applicable criteria are met.
  - 2. Right-of-way widths shall depend upon which classification of street is proposed. The right-of-way widths are established in the adopted TSP.
  - 3. Street widths. Street widths shall depend upon which classification of street is proposed. The classifications and required cross sections are established in the adopted TSP.
- **<u>Response:</u>** Evah Lane is classified as a local street in the City of West Linn's TSP. Given the pattern of existing development near the subject property and topographic constraints, the City has requested a limited improvement to Evah Lane as described above.
  - 4. The decision-making body shall consider the City Engineer's recommendations on the desired right-of-way width, pavement width and street geometry of the various street types within the subdivision after consideration by the City Engineer of the following criteria:
    - a. The type of road as set forth in the Transportation Master Plan.
    - b. The anticipated traffic generation.
    - c. On-street parking requirements.
    - d. Sidewalk and bikeway requirements.
    - e. Requirements for placement of utilities.
    - f. Street lighting.



- g. Drainage and slope impacts.
- h. Street trees.
- i. Planting and landscape areas.
- j. Existing and future driveway grades.
- k. Street geometry.
- 1. Street furniture needs, hydrants.
- **Response:** The Applicant's Engineer (AKS Engineering & Forestry) worked with the City Engineer to determine appropriate improvements to Evah Lane that work for this project, recognizing the existing pattern of development and challenging topography in the area. Public street improvements are illustrated in Exhibit A and are tied to the City's approval of a 3-parcel partition of Tax Lot 3800. The criteria are met.
  - 5. Additionally, when determining appropriate street width, the decisionmaking body shall consider the following criteria:
    - a. When a local street is the only street serving a residential area and is expected to carry more than the normal local street traffic load, the designs with two travel and one parking lane are appropriate.
    - b. Streets intended to serve as signed but unstriped bike routes should have the travel lane widened by two feet.
    - c. Collectors should have two travel lanes and may accommodate some parking. Bike routes are appropriate.
    - d. Arterials should have two travel lanes. On-street parking is not allowed unless part of a Street Master Plan. Bike lanes are required as directed by the Parks Master Plan and Transportation Master Plan.
- **Response:** The Applicant's Engineer (AKS Engineering & Forestry) worked with the City Engineer to determine improvements to Evah Lane that are appropriate for the subject project, recognizing the existing pattern of development and challenging topography in the area. Public street improvements are illustrated in Exhibit A and are tied to the City's approval of a 3-parcel partition of Tax Lot 3800. The criteria are met.
  - 6. Reserve strips. Reserve strips or street plugs controlling the access to streets are not permitted unless owned by the City.
  - 7. Alignment. All streets other than local streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuations of the centerlines thereof. The staggering of street alignments resulting in "T" intersections shall, wherever practical, leave a minimum distance of 200 feet between the centerlines of streets having approximately the same direction and otherwise shall not be less than 100 feet.
  - 8. Future extension of streets. Where necessary to give access to or permit a satisfactory future subdivision of adjoining land, streets shall be extended to the boundary of the subdivision and the resulting dead-end streets may be approved without turnarounds. (Temporary turnarounds built to Fire Department standards are required when the dead-end street is over 100 feet long.)



- 9. Intersection angles. Streets shall be laid out to intersect angles as near to right angles as practical, except where topography requires lesser angles, but in no case less than 60 degrees unless a special intersection design is approved. Intersections which are not at right angles shall have minimum corner radii of 15 feet along right-of-way lines which form acute angles. Right-of-way lines at intersections with arterial streets shall have minimum curb radii of not less than 35 feet. Other street intersections shall have curb radii of not less than 25 feet. All radii shall maintain a uniform width between the roadway and the right-of-way lines. The intersection of more than two streets at any one point will not be allowed unless no alternative design exists.
- **<u>Response:</u>** Exhibit A shows that a recent 3-parcel partition of Tax Lot 3800 included street improvements that are limited to structural upgrades to a portion of Evah Lane necessary to accommodate service vehicles such as garbage and fire trucks. Additional street improvements are not included in the application. The criteria do not apply.
  - 10. Additional right-of-way for existing streets. Wherever existing street rights-ofway adjacent to or within a tract are of inadequate widths based upon the standards of this chapter, additional right-of-way shall be provided at the time of subdivision or partition.
- **<u>Response:</u>** The Evah Lane right-of-way adjacent the subject property is of adequate width for the planned improvements. Additional right-of-way is not necessary. The criterion does not apply.
  - 11. Cul-de-sacs.
    - a. New cul-de-sacs and other closed-end streets (not including stub streets intended to be connected) on sites containing less than five acres, or sites accommodating uses other than residential or mixed use development, are not allowed unless the applicant demonstrates that there is no feasible alternative due to:
      - 1) Physical constraints (e.g., existing development, the size or shape of the site, steep topography, or a fish bearing stream or wetland protected by Chapter 32 CDC), or
      - 2) Existing easements or leases.
    - b. New cul-de-sacs and other closed-end streets, consistent with subsection (A)(11)(a) of this section, shall not exceed 200 feet in length or serve more than 25 dwelling units unless the design complies with all adopted Tualatin Valley Fire and Rescue (TVFR) access standards and adequately provides for anticipated traffic, consistent with the Transportation System Plan (TSP).
    - c. New cul-de-sacs and other closed-end streets (not including stub streets intended to be connected) on sites containing five acres or more that are proposed to accommodate residential or mixed use development are prohibited unless barriers (e.g., existing development, steep topography, or a fish bearing stream or wetland protected by Chapter 32 CDC, or easements, leases or covenants established prior to May 1, 1995) prevent street extensions. In that case, the street shall not exceed 200 feet in length or serve more than 25 dwelling units, and its design shall comply with all adopted TVFR access standards and adequately provide for anticipated traffic, consistent with the TSP.



- **<u>Response</u>**: This application does not include the creation of a new cul-de-sac. The criteria do not apply.
  - d. Applicants for a proposed subdivision, partition or a multifamily, commercial or industrial development accessed by an existing culde-sac/closed-end street shall demonstrate that the proposal is consistent with all applicable traffic standards and TVFR access standards.
- **<u>Response:</u>** Tualatin Valley Fire & Rescue has indicated (see Exhibit E) that the partition can be adequately served by the existing street and turnaround located northeast of Tax Lot 2817, north of the subject site, and via the private access to Parcel 1 from 14th Street. The criterion is met.

e. All cul-de-sacs and other closed-end streets shall include direct pedestrian and bicycle accessways from the terminus of the street to an adjacent street or pedestrian and bicycle accessways unless the applicant demonstrates that such connections are precluded by physical constraints or that necessary easements cannot be obtained at a reasonable cost.

- **<u>Response:</u>** This application demonstrates that physical constraints preclude bicycle or pedestrian connections to an adjacent street or pedestrian or bicycle accessway. The criterion is met.
  - f. All cul-de-sacs/closed-end streets shall terminate with a turnaround built to one of the following specifications (measurements are for the traveled way and do not include planter strips or sidewalks).
- **Response:** This application does not include any new cul-de-sacs. The criterion does not apply.
  - 12. Street names. No street names shall be used which will duplicate or be confused with the names of existing streets within the City. Street names that involve difficult or unusual spellings are discouraged. Street names shall be subject to the approval of the Planning Commission or Planning Director, as applicable. Continuations of existing streets shall have the name of the existing street. Streets, drives, avenues, ways, boulevards, and lanes shall describe through streets. Place and court shall describe cul-de-sacs. Crescent, terrace, and circle shall describe loop or arcing roads.
- **Response:** This application does not include any new streets. The criterion does not apply.
  - 13. Grades and curves. Grades and horizontal/vertical curves shall meet the West Linn Public Works Design Standards.
- **Response:** Exhibit A shows improvements tied to the City's approval of a recent 3-parcel partition of Tax Lot 3800 (owned by the Applicant and immediately west of the subject site) that includes the reconstruction of a portion of the existing travel lane in Evah Lane. These improvements have been designed consistent with the City of West Linn's Public Works Design Standards for street grade and horizontal/vertical curves. The criterion is met.
  - 14. Access to local streets. Intersection of a local residential street with an arterial street may be prohibited by the decision-making authority if suitable alternatives exist for providing interconnection of proposed local residential streets with other local streets. Where a subdivision or partition abuts or contains an existing or proposed major arterial street, the decision-making authority may require marginal access streets, reverse-frontage lots with



		suitab along adequ and to	le depth, visual barriers, noise barriers, berms, no-access reservations side and rear property lines, and/or other measures necessary for ate protection of residential properties from incompatible land uses, ensure separation of through traffic and local traffic.
Response:	Exhibit A show site does not	vs that t take acco	he application does not include any new public streets. The subject ess from an arterial street. The criterion does not apply.
	15.	Alleys other faciliti interso of nec may b decision to adj alleys should	Alleys shall be provided in commercial and industrial districts unless permanent provisions for access to off-street parking and loading es are made as approved by the decision-making authority. While alley ections and sharp changes in alignment should be avoided, the corners essary alley intersections shall have radii of not less than 10 feet. Alleys be provided in residential subdivisions or multi-family projects. The on to locate alleys shall consider the relationship and impact of the alley accent land uses. In determining whether it is appropriate to require in a subdivision or partition, the following factors and design criteria l be considered:
		a.	The alley shall be self-contained within the subdivision. The alley shall not abut undeveloped lots or parcels which are not part of the project proposal. The alley will not stub out to abutting undeveloped parcels which are not part of the project proposal.
		b.	The alley will be designed to allow unobstructed and easy surveillance by residents and police.
		c.	The alley should be illuminated. Lighting shall meet the West Linn Public Works Design Standards.
		d.	The alley should be a semi-private space where strangers are tacitly discouraged.
		e.	Speed bumps may be installed in sufficient number to provide a safer environment for children at play and to discourage through or speeding traffic.
		f.	Alleys should be a minimum of 14 feet wide, paved with no curbs.
Response:	Exhibit A show	vs that t	he application does not include alleys. The criteria do not apply.
	16.	Sidew reside Sidew this so reduce wide) rock o limita	alks. Sidewalks shall be installed per CDC 92.010(H), Sidewalks. The ntial sidewalk width is six feet plus planter strip as specified below. alks in commercial zones shall be constructed per subsection (A)(3) of ection. See also subsection C of this section. Sidewalk width may be ed with City Engineer approval to the minimum amount (e.g., four feet necessary to respond to site constraints such as grades, mature trees, putcroppings, etc., or to match existing sidewalks or right-of-way tions.
<u>Response:</u>	After consulti of residences site frontage	ng with t in this a are not r	the City Engineer, it was determined that, due to the small number and significant topographical constraints, sidewalks along the necessary. The criterion is met.
	17.	Plante space be at le	r strip. The planter strip is between the curb and sidewalk providing for a grassed or landscaped area and street trees. The planter strip shall east 6 feet wide to accommodate a fully matured tree without the boughs

interfering with pedestrians on the sidewalk or vehicles along the curbline. Planter strip width may be reduced or eliminated, with City Engineer



approval, when it cannot be corrected by site plan, to the minimum amount necessary to respond to site constraints such as grades, mature trees, rock outcroppings, etc., or in response to right-of-way limitations.

- **<u>Response:</u>** A new planter strip on Evah Lane is not included in this application due to the existing surrounding development pattern and challenging topography. This street configuration has been reviewed and deemed acceptable by the City Engineer. The criterion is met.
  - 18. Streets and roads shall be dedicated without any reservations or restrictions.
- **Response:** This application does not include any new public streets. The criterion does not apply.
  - 19. All lots in a subdivision shall have access to a public street. Lots created by partition may have access to a public street via an access easement pursuant to the standards and limitations set forth for such accessways in Chapter 48 CDC.
- **Response:** Exhibit A shows that both Parcels will have access to a public street. The applicable criteria in Chapter 48 have been met. The criterion is met.
  - 20. Gated streets. Gated streets are prohibited in all residential areas on both public and private streets. A driveway to an individual home may be gated.
- **Response:** This application does not include any new gated streets. The criterion does not apply.
  - 21. Entryway treatments and street isle design. When the applicant desires to construct certain walls, planters, and other architectural entryway treatments within a subdivision, the following standards shall apply:
    - a. All entryway treatments except islands shall be located on private property and not in the public right-of-way.
    - Planter islands may be allowed provided there is no structure (i.e., brick, signs, etc.) above the curbline, except for landscaping. Landscaped islands shall be set back a minimum of 24 feet from the curbline of the street to which they are perpendicular.
    - c. All islands shall be in public ownership. The minimum aisle width between the curb and center island curbs shall be 14 feet. Additional width may be required as determined by the City Engineer.
    - d. Brick or special material treatments are acceptable at intersections with the understanding that the City will not maintain these sections except with asphalt overlay, and that they must meet the Americans with Disabilities Act (ADA) standards. They shall be laid out to tie into existing sidewalks at intersections.
    - e. Maintenance for any common areas and entryway treatments (including islands) shall be guaranteed through homeowners association agreements, CC&Rs, etc.
    - f. Under Chapter 52 CDC, subdivision monument signs shall not exceed 32 square feet in area.
- **<u>Response:</u>** This application does not include any of the above listed entry treatments. The criteria do not apply.
  - 22. Based upon the determination of the City Manager or the Manager's designee, the applicant shall construct or cause to be constructed, or contribute a proportionate share of the costs, for all necessary off-site



improvements identified by the transportation analysis commissioned to address CDC 85.170(B)(2) that are required to mitigate impacts from the proposed subdivision. The proportionate share of the costs shall be determined by the City Manager or Manager's designee, who shall assume that the proposed subdivision provides improvements in rough proportion to identified impacts of the subdivision. Off-site transportation improvements will include bicycle and pedestrian improvements as identified in the adopted City of West Linn TSP.

- **Response:** The City has not expressed a need to contribute toward any off-site improvements. At time of building permit submittal, the property owner/builder of each new home will be required to pay system development charges (SDCs) to the City. A typical single-family home will pay approximately \$40,765 in SDCs (City of West Linn, Master Fees and Charges Document, July 1, 2017), which are used to add capacity to the City's street, water, sanitary sewer, storm sewer, and parks systems.
  - B. Blocks and lots.
    - 1. General. The length, width, and shape of blocks shall be designed with due regard for the provision of adequate building sites for the use contemplated; consideration of the need for traffic safety, convenience, access, circulation, and control; and recognition of limitations and opportunities of topography and solar access.
    - 2. Sizes. The recommended block size is 400 feet in length to encourage greater connectivity within the subdivision. Blocks shall not exceed 800 feet in length between street lines, except for blocks adjacent to arterial streets or unless topographical conditions or the layout of adjacent streets justifies a variation. Designs of proposed intersections shall demonstrate adequate sight distances to the City Engineer's specifications. Block sizes and proposed accesses must be consistent with the adopted TSP. Subdivisions of five or more acres that involve construction of a new street shall have block lengths of no more than 530 feet. If block lengths are greater than 530 feet, accessways on public easements or right-of-way for pedestrians and cyclists shall be provided not more than 330 feet apart. Exceptions can be granted when prevented by barriers such as topography, rail lines, freeways, pre-existing development, leases, easements or covenants that existed prior to May 1, 1995, or by requirements of Titles 3 and 13 of the UGMFP. If streets must cross water features protected pursuant to Title 3 UGMFP, provide a crossing every 800 to 1,200 feet unless habitat quality or the length of the crossing prevents a full street connection.
- **<u>Response:</u>** Exhibit A shows that the application does not include any new streets, nor does it result in the creation of new blocks. The criteria do not apply.
  - 3. Lot size and shape. Lot or parcel size, width, shape, and orientation shall be appropriate for the location of the subdivision or partition, for the type of use contemplated, for potential utilization of solar access, and for the protection of drainageways, trees, and other natural features. No lot or parcel shall be dimensioned to contain part of an existing or proposed street. All lots or parcels shall be buildable. "Buildable" describes lots that are free of constraints such as wetlands, drainageways, etc., that would make home construction impossible. Lot or parcel sizes shall not be less than the size required by the zoning code unless as allowed by planned unit development (PUD).



Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the off-street parking and service facilities required by the type of use proposed.

- **<u>Response:</u>** Exhibit A shows that the partition has been designed to create a sufficient area for a future home on Parcel 2 outside of protected water resource and habitat protection areas. Exhibit A also demonstrates that all parcels satisfy the minimum dimensional requirements for new parcels in the R-10 Zoning District. The criteria are met.
  - 4. Access. Access to subdivisions, partitions, and lots shall conform to the provisions of Chapter 48 CDC, Access, Egress and Circulation.
- **<u>Response:</u>** As described under the responses to the applicable criteria in Chapter 48 above, said criteria are, or can be, met.
  - 5. Double frontage lots and parcels. Double frontage lots and parcels have frontage on a street at the front and rear property lines. Double frontage lots and parcels shall be avoided except where they are essential to provide separation of residential development from arterial streets or adjacent nonresidential activities, or to overcome specific disadvantages of topography and orientation. A planting screen or impact mitigation easement at least 10 feet wide, and across which there shall be no right of access, may be required along the line of building sites abutting such a traffic artery or other incompatible use.
- **<u>Response:</u>** Exhibit A shows that the application does not result in new double frontage lots. The criteria do not apply.
  - 6. Lot and parcel side lines. The lines of lots and parcels, as far as is practicable, should run at right angles to the street upon which they face, except that on curved streets they should be radial to the curve.
- **<u>Response:</u>** Exhibit A shows that the parcel lines run at right angles to the extent practical given the shape of the parent parcel. The criterion is met.
  - 7. Flag lots. Flag lots can be created where it can be shown that no other reasonable street access is possible to achieve the requested land division. A single flag lot shall have a minimum street frontage of 15 feet for its accessway. Where two to four flag lots share a common accessway, the minimum street frontage and accessway shall be eight feet in width per lot. Common accessways shall have mutual maintenance agreements and reciprocal access and utility easements. The following dimensional requirements shall apply to flag lots:
    - a. Setbacks applicable to the underlying zone shall apply to the flag lot.
    - b. Front yard setbacks may be based on the rear property line of the lot or parcel which substantially separates the flag lot from the street from which the flag lot gains access. Alternately, the house and its front yard may be oriented in other directions so long as some measure of privacy is ensured, or it is part of a pattern of development, or it better fits the topography of the site.
    - c. The lot size shall be calculated exclusive of the accessway; the access strip may not be counted towards the area requirements.



- d. The lot depth requirement contained elsewhere in this code shall be measured from the rear property line of the lot or parcel which substantially separates the flag lot from the street from which the flag lot gains access. As per CDC 48.030, the accessway shall have a minimum paved width e. of 12 feet. f. If the use of a flag lot stem to access a lot is infeasible because of a lack of adequate existing road frontage, or location of existing structures, the proposed lot(s) may be accessed from the public street by an access easement of a minimum 15-foot width across intervening property. **Response:** The application does not include new flag lots. The criteria do not apply. 8. Large lots or parcels. In dividing tracts into large lots or parcels which, at some future time, are likely to be redivided, the approval authority may:
  - a. Require that the blocks be of such size and shape, and be so divided into building sites, and contain such easements and site restrictions as will provide for extension and opening of streets at intervals which will permit a subsequent division of any tract into lots or parcels of smaller size; or
  - b. Alternately, in order to prevent further subdivision or partition of oversized and constrained lots or parcels, restrictions may be imposed on the subdivision or partition plat.
- **<u>Response:</u>** This application does not result in parcels that can be further divided under the R-10 zoning designation and other overlay districts. The criteria do not apply.
  - C. Pedestrian and bicycle trails.
    - 1. Trails or multi-use pathways shall be installed, consistent and compatible with federal ADA requirements and with the Oregon Transportation Planning Rule, between subdivisions, cul-de-sacs, and streets that would otherwise not be connected by streets due to excessive grades, significant tree(s), and other constraints natural or manmade. Trails shall also accommodate bicycle or pedestrian traffic between neighborhoods and activity areas such as schools, libraries, parks, or commercial districts. Trails shall also be required where designated by the Parks Master Plan.
    - 2. The all-weather surface (asphalt, etc.) trail should be eight feet wide at minimum for bicycle use and six feet wide at minimum for pedestrian use. Trails within 10 feet of a wetland or natural drainageway shall not have an all-weather surface, but shall have a soft surface as approved by the Parks Director. These trails shall be contained within a corridor dedicated to the City that is wide enough to provide trail users with a sense of defensible space. Corridors that are too narrow, confined, or with vegetative cover may be threatening and discourage use. Consequently, the minimum corridor width shall be 20 feet. Sharp curves, twists, and blind corners on the trail are to be avoided as much as possible to enhance defensible space. Deviations from the corridor and trail width are permitted only where topographic and ownership constraints require it.
    - 3. Defensible space shall also be enhanced by the provision of a three- to fourfoot-high matte black chain link fence or acceptable alternative along the edge of the corridor. The fence shall help delineate the public and private spaces.



- 4. The bicycle or pedestrian trails that traverse multi-family and commercial sites should follow the same defensible space standards but do not need to be defined by a fence unless required by the decision-making authority.
- 5. Except for trails within 10 feet of a wetland or natural drainageway, soft surface or gravel trails may only be used in place of a paved, all-weather surface where it can be shown to the Planning Director that the principal users of the path will be recreational, non-destination-oriented foot traffic, and that alternate paved routes are nearby and accessible.
- 6. The trail grade shall not exceed 12 percent except in areas of unavoidable topography, where the trail may be up to a 15 percent grade for short sections no longer than 50 feet. In any location where topography requires steeper trail grades than permitted by this section, the trail shall incorporate a short stair section to traverse the area of steep grades.
- **<u>Response:</u>** This application does not include any new pedestrian or bicycle trails, as discussed earlier. The criteria do not apply.
  - D. Transit facilities.
    - 1. The applicant shall consult with Tri-Met and the City Engineer to determine the appropriate location of transit stops, bus pullouts, future bus routes, etc., contiguous to or within the development site. If transit service is planned to be provided within the next two years, then facilities such as pullouts shall be constructed per Tri-Met standards at the time of development. More elaborate facilities, like shelters, need only be built when service is existing or imminent. Additional rights-of-way may be required of developers to accommodate buses.
    - 2. The applicant shall make all transit-related improvements in the right-of-way or in easements abutting the development site as deemed appropriate by the City Engineer.
    - 3. Transit stops shall be served by striped and signed pedestrian crossings of the street within 150 feet of the transit stop where feasible. Illumination of the transit stop and crossing is required to enhance defensible space and safety. ODOT approval may be required.
    - 4. Transit stops should include a shelter structure bench plus eight feet of sidewalk to accommodate transit users, non-transit-related pedestrian use, and wheelchair users. Tri-Met must approve the final configuration.
- **<u>Response:</u>** The subject site is not located on an existing or planned transit route and subsequently transit improvements are not included in this application. The criteria do not apply.
  - E. Grading. Grading of building sites shall conform to the following standards unless physical conditions demonstrate the propriety of other standards:
    - 1. All cuts and fills shall comply with the excavation and grading provisions of the Uniform Building Code and the following:
      - a. Cut slopes shall not exceed one and one-half feet horizontally to one foot vertically (i.e., 67 percent grade).
      - b. Fill slopes shall not exceed two feet horizontally to one foot vertically (i.e., 50 percent grade). Please see the following illustration.
    - 2. The character of soil for fill and the characteristics of lot and parcels made usable by fill shall be suitable for the purpose intended.



- 3. If areas are to be graded (more than any four-foot cut or fill), compliance with CDC 85.170(C) is required.
- 4. The proposed grading shall be the minimum grading necessary to meet roadway standards, and to create appropriate building sites, considering maximum allowed driveway grades.
- 5. Type I lands shall require a report submitted by an engineering geologist, and Type I and Type II lands shall require a geologic hazard report.
- 6. Repealed by Ord. 1635.
- 7. On land with slopes in excess of 12 percent, cuts and fills shall be regulated as follows:
  - a. Toes of cuts and fills shall be set back from the boundaries of separate private ownerships at least three feet, plus one-fifth of the vertical height of the cut or fill. Where an exception is required from that requirement, slope easements shall be provided.
  - b. Cuts shall not remove the toe of any slope where a severe landslide or erosion hazard exists (as described in subsection (G)(5) of this section).
  - c. Any structural fill shall be designed by a registered engineer in a manner consistent with the intent of this code and standard engineering practices, and certified by that engineer that the fill was constructed as designed.
  - d. Retaining walls shall be constructed pursuant to Section 2308(b) of the Oregon State Structural Specialty Code.
  - e. Roads shall be the minimum width necessary to provide safe vehicle access, minimize cut and fill, and provide positive drainage control.
- 8. Land over 50 percent slope shall be developed only where density transfer is not feasible. The development will provide that:
  - a. At least 70 percent of the site will remain free of structures or impervious surfaces.
  - b. Emergency access can be provided.
  - c. Design and construction of the project will not cause erosion or land slippage.
  - d. Grading, stripping of vegetation, and changes in terrain are the minimum necessary to construct the development in accordance with subsection J of this section.
- **<u>Response:</u>** This application does not include any grading. The City will ensure compliance with the above standards is met if grading is proposed on the subject parcels. The criteria can be met.
  - F. Water.
    - 1. A plan for domestic water supply lines or related water service facilities shall be prepared consistent with the adopted Comprehensive Water System Plan, plan update, March 1987, and subsequent superseding revisions or updates.
    - 2. Adequate location and sizing of the water lines.
    - 3. Adequate looping system of water lines to enhance water quality.



- 4. For all non-single-family developments, there shall be a demonstration of adequate fire flow to serve the site.
- 5. A written statement, signed by the City Engineer, that water service can be made available to the site by the construction of on-site and off-site improvements and that such water service has sufficient volume and pressure to serve the proposed development's domestic, commercial, industrial, and fire flows.
- **<u>Response:</u>** At the October 20, 2016 pre-application conference, the City indicated that sufficient water service was available to serve the subject parcels. Exhibit A shows that the service to the individual parcels is planned to be provided via laterals connecting to an existing water main in Evah Lane. Prior to final plat approval, the City will ensure that new water lines are adequately sized for domestic and emergency service. The criteria can be met.
  - G. Sewer.
    - 1. A plan prepared by a licensed engineer shall show how the proposal is consistent with the Sanitary Sewer Master Plan (July 1989). Agreement with that plan must demonstrate how the sanitary sewer proposal will be accomplished and how it is gravity-efficient. The sewer system must be in the correct basin and should allow for full gravity service.
    - 2. Sanitary sewer information will include plan view of the sanitary sewer lines, including manhole locations and depth or invert elevations.
    - 3. Sanitary sewer lines shall be located in the public right-of-way, particularly the street, unless the applicant can demonstrate why the alternative location is necessary and meets accepted engineering standards.
    - 4. Sanitary sewer line should be at a depth that can facilitate connection with down-system properties in an efficient manner.
    - 5. The sanitary sewer line should be designed to minimize the amount of lineal feet in the system.
    - 6. The sanitary sewer line shall avoid disturbance of wetland and drainageways. In those cases where that is unavoidable, disturbance shall be mitigated pursuant to Chapter 32 CDC, Water Resource Area Protection, all trees replaced, and proper permits obtained. Dual sewer lines may be required so the drainageway is not disturbed.
    - 7. Sanitary sewer shall be extended or stubbed out to the next developable subdivision or a point in the street that allows for reasonable connection with adjacent or nearby properties.
    - 8. The sanitary sewer system shall be built pursuant to DEQ, City, and Tri-City Service District sewer standards. The design of the sewer system should be prepared by a licensed engineer, and the applicant must be able to demonstrate the ability to satisfy these submittal requirements or standards at the pre-construction phase.
    - 9. A written statement, signed by the City Engineer, that sanitary sewers with sufficient capacity to serve the proposed development and that adequate sewage treatment plant capacity is available to the City to serve the proposed development.
- **Response:** At the October 20, 2016 pre-application conference, the City indicated that sufficient sanitary sewer service was available to serve the subject parcels. Exhibit A shows that the service to Parcel 2 is planned to be provided via a lateral that connects to an existing



sanitary sewer main line located near the west side of Parcel 2. Temporary disturbance to the WRA will be necessary to make these connections. Temporary disturbances will be revegetated following construction. The applicable criteria are met.

- H. Deleted during July 2014 supplement.
- I. Utility easements. Subdivisions and partitions shall establish utility easements to accommodate the required service providers as determined by the City Engineer. The developer of the subdivision shall make accommodation for cable television wire in all utility trenches and easements so that cable can fully serve the subdivision.
- **<u>Response:</u>** Exhibit A shows that an 8-foot wide utility easement is located near the north end of Parcels 1 and 2. The criteria are met.
  - J. Supplemental provisions.
    - 1. Wetland and natural drainageways. Wetlands and natural drainageways shall be protected as required by Chapter 32 CDC, Water Resource Area Protection. Utilities may be routed through the protected corridor as a last resort, but impact mitigation is required.
- **Response:** This application includes limited temporary disturbances to the WRA (not a wetland or water resource itself) necessary to connect a sanitary sewer lateral to Parcel 2 with an existing sanitary sewer main located near the west side of Parcel 2. The criterion is met.
  - 2. Willamette and Tualatin Greenways. The Willamette and Tualatin River Greenways shall be protected as required by Chapter 28 CDC, Willamette and Tualatin River Protection.
- **<u>Response:</u>** Responses to the applicable criteria of Chapter 28 are included above. The applicable criteria are met.
  - 3. Street trees. Street trees are required as identified in the appropriate section of the municipal code and Chapter 54 CDC.
- **Response:** This application does not include street trees. The criteria do not apply.
  - 4. Lighting. All subdivision street or alley lights shall meet West Linn Public Works Design Standards.
- **<u>Response:</u>** This application does not include new streets or alleys nor lighting improvements to any existing streets. The criteria do not apply.
  - 5. Dedications and exactions. The City may require an applicant to dedicate land and/or construct a public improvement that provides a benefit to property or persons outside the property that is the subject of the application when the exaction is roughly proportional. No exaction shall be imposed unless supported by a determination that the exaction is roughly proportional to the impact of development.
- **<u>Response:</u>** The City has not requested any dedication or exactions necessary to construct a planned public improvement.
  - 6. Underground utilities. All utilities, such as electrical, telephone, and television cable, that may at times be above ground or overhead shall be buried underground in the case of new development. The exception would be in those cases where the area is substantially built out and adjacent properties



have above-ground utilities and where the development site's frontage is under 200 feet and the site is less than one acre. High voltage transmission lines, as classified by Portland General Electric or electric service provider, would also be exempted. Where adjacent future development is expected or imminent, conduits may be required at the direction of the City Engineer. All services shall be underground with the exception of standard above-grade equipment such as some meters, etc.

- **<u>Response:</u>** When the franchise utilities are brought to the subject parcels, the property owner or builder will ensure that they are located underground. Exhibit A shows that an 8-foot utility easement has been included along the front of all three parcels to accommodate future franchise utility installation. The criteria can be met.
  - 7. Density requirement. Density shall occur at 70 percent or more of the maximum density allowed by the underlying zoning. These provisions would not apply when density is transferred from Type I and II lands as defined in CDC 02.030. Development of Type I or II lands are exempt from these provisions. Land divisions of three lots or less would also be exempt.
- **<u>Response:</u>** The application includes a 2-parcel partition and is therefore exempt from this provision. The criterion does not apply.
  - 8. Mix requirement. The "mix" rule means that developers shall have no more than 15 percent of the R-2.1 and R-3 development as single-family residential. The intent is that the majority of the site shall be developed as medium high density multi-family housing.
- **<u>Response:</u>** The subject site is not located in the above-listed zoning districts. The criterion does not apply.
  - 9. Heritage trees/significant tree and tree cluster protection. All heritage trees, as defined in the municipal code, shall be saved. Diseased heritage trees, as determined by the City Arborist, may be removed at his/her direction. All non-heritage trees and clusters of trees (three or more trees with overlapping dripline; however, native oaks need not have an overlapping dripline) that are considered significant by virtue of their size, type, location, health, or numbers shall be saved pursuant to CDC 55.100(B)(2). Trees are defined per the municipal code as having a trunk six inches in diameter or 19 inches in circumference at a point five feet above the mean ground level at the base of the trunk.
- **<u>Response:</u>** This application includes the removal of 2 of the 58 total trees on site, to accommodate utility service and a future residence on Parcel 2. Of these trees that are planned to be removed, 1 is exempt from the City's tree preservation standards. The criteria are met.

# Chapter 92 - REQUIRED IMPROVEMENTS

The following improvements shall be installed at the expense of the developer and meet all City codes and standards:

- A. Streets within subdivisions.
  - 1. All streets within a subdivision, including alleys, shall be graded for the full right-of-way width and improved to the City's permanent improvement standards and specifications which include sidewalks and bicycle lanes, unless the decision-making authority makes the following findings:



- a. The right-of-way cannot be reasonably improved in a manner consistent with City road standards or City standards for the protection of wetlands and natural drainageways.
- b. The right-of-way does not provide a link in a continuous pattern of connected local streets, or, if it does provide such a link, that an alternative street link already exists or the applicant has proposed an alternative street which provides the necessary connectivity, or the applicant has proven that there is no feasible location on the property for an alternative street providing the link.
- **Response:** The City Engineer has determined that, given the pattern of existing development in the area and the existing topography, public street improvements consistent with the City's standard for local streets are not reasonable. Minor improvements to Evah Lane, that will accommodate additional use by service vehicles, are included in a prior 3-parcel partition submitted by the Applicant. The criteria are met.
  - 2. When the decision-making authority makes these findings, the decisionmaking authority may impose any of the following conditions of approval:
    - a. A condition that the applicant initiate vacation proceedings for all or part of the right-of-way.
    - b. A condition that the applicant build a trail, bicycle path, or other appropriate way.

If the applicant initiates vacation proceedings pursuant to subsection (A)(2)(a) of this section, and the right-of-way cannot be vacated because of opposition from adjacent property owners, the City Council shall consider and decide whether to process a City-initiated street vacation pursuant to Chapter 271 ORS.

Construction staging area shall be established and approved by the City Engineer. Clearing, grubbing, and grading for a development shall be confined to areas that have been granted approval in the land use approval process only. Clearing, grubbing, and grading outside of land use approved areas can only be approved through a land use approval modification and/or an approved Building Department grading permit for survey purposes. Catch basins shall be installed and connected to pipe lines leading to storm sewers or drainageways.

- **<u>Response:</u>** The City has not indicated a desire for additional right-of-way or bicycle or pedestrian trails.
  - B. Extension of streets to subdivisions. The extension of subdivision streets to the intercepting paving line of existing streets with which subdivision streets intersect shall be graded for the full right-of-way width and improved to a minimum street structural section and width of 24 feet.
- **<u>Response:</u>** New streets or extensions to abutting properties are not included in this application. The criterion does not apply.
  - C. Local and minor collector streets within the rights-of-way abutting a subdivision shall be graded for the full right-of-way width and approved to the City's permanent improvement standards and specifications. The City Engineer shall review the need for street improvements and shall specify whether full street or partial street improvements shall be required. The City Engineer shall also specify the extent of storm drainage improvements required. The City Engineer shall be guided by the



purpose of the City's systems development charge program in determining the extent of improvements which are the responsibility of the subdivider.

- **<u>Response:</u>** New streets or extensions to abutting properties are not included in this application. The criterion does not apply.
  - D. Monuments. Upon completion of the first pavement lift of all street improvements, monuments shall be installed and/or reestablished at every street intersection and all points of curvature and points of tangency of street centerlines with an iron survey control rod. Elevation benchmarks shall be established at each street intersection monument with a cap (in a monument box) with elevations to a U.S. Geological Survey datum that exceeds a distance of 800 feet from an existing benchmark.
- **<u>Response:</u>** Any monuments that are disturbed due to the street improvements included in Exhibit A will be reestablished in accordance with the provisions above. The criterion can be met.
  - E. Surface drainage and storm sewer system. A registered civil engineer shall prepare a plan and statement which shall be supported by factual data and comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards. Developers are encouraged to adapt storm water management approaches that make use of natural systems and infiltration to manage storm runoff, including the use of vegetated swales, rain gardens, and other like systems where appropriate.
- **<u>Response:</u>** This application does not include development that results in a need for stormwater management. The owner/builder for each lot will submit their approach for managing stormwater on each parcel when a building permit is submitted. The criterion can be met.
  - F. Sanitary sewers. Sanitary sewers shall be installed to City standards to serve the subdivision and to connect the subdivision to existing mains.
- **<u>Response:</u>** The application includes a new sanitary sewer lateral to serve Parcel 2. Sanitary sewer service to the existing home on Parcel 1 will not be modified by this application. The criterion is met.
  - 1. If the area outside the subdivision to be directly served by the sewer line has reached a state of development to justify sewer installation at the time, the Planning Commission may recommend to the City Council construction as an assessment project with such arrangement with the subdivider as is desirable to assure financing his or her share of the construction.
  - 2. If the installation is not made as an assessment project, the City may reimburse the subdivider an amount estimated to be a proportionate share of the cost for each connection made to the sewer by property owners outside of the subdivision for a period of 10 years from the time of installation of the sewers. The actual amount shall be determined by the City Administrator considering current construction costs.
- **<u>Response:</u>** The City Engineer has not indicated a need for additional sanitary sewer improvements due to this application.
  - G. Water system. Water lines with valves and fire hydrants providing service to each building site in the subdivision and connecting the subdivision to City mains shall be installed. Prior to starting building construction, the design shall take into account provisions for extension beyond the subdivision and to adequately grid the City system. Hydrant spacing is to be based on accessible area served according to the City Engineer's recommendations and City standards. If required water mains will directly



serve property outside the subdivision, the City may reimburse the developer an amount estimated to be the proportionate share of the cost for each connection made to the water mains by property owners outside the subdivision for a period of 10 years from the time of installation of the mains. If oversizing of water mains is required to areas outside the subdivision as a general improvement, but to which no new connections can be identified, the City may reimburse the developer that proportionate share of the cost for oversizing. The actual amount and reimbursement method shall be as determined by the City Administrator considering current or actual construction costs.

- **<u>Response:</u>** This application does not include water system improvements beyond a new lateral to serve Parcel 2. An existing water main and fire hydrant, able to accommodate new future homes on the subject parcels, are located in Evah Lane immediately north of the subject site.
  - H. Sidewalks.
    - 1. Sidewalks shall be installed on both sides of a public street and in any special pedestrian way within the subdivision, except that in the case of primary or secondary arterials, or special type industrial districts, or special site conditions, the Planning Commission may approve a subdivision without sidewalks if alternate pedestrian routes are available.

In the case of the double-frontage lots, provision of sidewalks along the frontage not used for access shall be the responsibility of the developer. Providing front and side yard sidewalks shall be the responsibility of the land owner at the time a request for a building permit is received. Additionally, deed restrictions and CC&Rs shall reflect that sidewalks are to be installed prior to occupancy and it is the responsibility of the lot or homeowner to provide the sidewalk, except as required above for double-frontage lots.

- 2. On local streets serving only single-family dwellings, sidewalks may be constructed during home construction, but a letter of credit shall be required from the developer to ensure construction of all missing sidewalk segments within four years of final plat approval pursuant to CDC 91.010(A)(2).
- 3. The sidewalks shall measure at least six feet in width and be separated from the curb by a six-foot minimum width planter strip. Reductions in widths to preserve trees or other topographic features, inadequate right-of-way, or constraints, may be permitted if approved by the City Engineer in consultation with the Planning Director.
- 4. Sidewalks should be buffered from the roadway on high volume arterials or collectors by landscape strip or berm of three and one-half-foot minimum width.
- 5. The City Engineer may allow the installation of sidewalks on one side of any street only if the City Engineer finds that the presence of any of the factors listed below justifies such waiver:
  - a. The street has, or is projected to have, very low volume traffic density;
  - b. The street is a dead-end street;
  - c. The housing along the street is very low density; or
  - d. The street contains exceptional topographic conditions such as steep slopes, unstable soils, or other similar conditions making the location of a sidewalk undesirable.



<u>Response:</u>	The C are n	ity Engineer has determined that sidewalks on Evah Lane, abutting the subject site, ot appropriate. The criteria do not apply.			
	I.	Bicycle routes. If appropriate to the extension of a system of bicycle routes, existing or planned, the Planning Commission may require the installation of separate bicycle lanes within streets and separate bicycle paths.			
Response:	The s not a	ubject site does not lie along an existing or planned bike route. The criterion does pply.			
	J.	Street name signs. All street name signs and traffic control devices for the initial signing of the new development shall be installed by the City with sign and installation costs paid by the developer.			
<u>Response:</u>	The application does not include any new streets or intersections. The criterion does not apply.				
	K.	Dead-end street signs. Signs indicating "future roadway" shall be installed at the end of all discontinued streets. Signs shall be installed by the City per City standards, with sign and installation costs paid by the developer.			
Response:	The application does not include any new dead-end streets. The criterion does not apply.				
	L.	Signs indicating future use shall be installed on land dedicated for public facilities (e.g., parks, water reservoir, fire halls, etc.). Sign and installation costs shall be paid by the developer.			
<u>Response:</u>	The application does not include any land dedicated for future public parks or other civic uses. The criterion does not apply.				
	М.	Street lights. Street lights shall be installed and shall be served from an underground source of supply. The street lighting shall meet IES lighting standards. The street lights shall be the shoe-box style light (flat lens) with a 30-foot bronze pole in residential (non-intersection) areas. The street light shall be the cobra head style (drop lens) with an approximate 50-foot (sized for intersection width) bronze pole. The developer shall submit to the City Engineer for approval of any alternate residential, commercial, and industrial lighting, and alternate lighting fixture design. The developer and/or homeowners association is required to pay for all expenses related to street light energy and maintenance costs until annexed into the City.			
Response:	The a	pplication does not include any new street lighting. The criterion does not apply.			
	N.	Utilities. The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting, and cable television, shall be placed underground.			
<u>Response:</u>	Utility providers will be contacted when new utility construction begins. All new electrical, and other franchise utilities for Parcel 2 will be located underground. Utility service to Parcel 1 is not anticipated to be modified by this application. The criteria can be met.				
	0.	Curb cuts and driveways. Curb cuts and driveway installations are not required of the subdivider at the time of street construction, but, if installed, shall be according to City standards. Proper curb cuts and hard-surfaced driveways shall be required at the time buildings are constructed.			
Response:	The a	pplication does not include new curb cuts. The criterion does not apply.			

- P. Street trees. Street trees shall be provided by the City Parks and Recreation Department in accordance with standards as adopted by the City in the Municipal Code. The fee charged the subdivider for providing and maintaining these trees shall be set by resolution of the City Council.
- **Response:** The application does not include street trees. The criterion does not apply.
  - Q. Joint mailbox facilities shall be provided in all residential subdivisions, with each joint mailbox serving at least two, but no more than eight, dwelling units. Joint mailbox structures shall be placed in the street right-of-way adjacent to roadway curbs. Proposed locations of joint mailboxes shall be designated on a copy of the tentative plan of the subdivision, and shall be approved as part of the tentative plan approval. In addition, sketch plans for the joint mailbox structures to be used shall be submitted and approved by the City Engineer prior to final plat approval.
- **<u>Response:</u>** The application does not include a subdivision. The criterion does not apply.
  - 92.020 Improvements In Partitions

The same improvements shall be installed to serve each parcel of a partition as are required of a subdivision. However, if the approval authority finds that the nature of development in the vicinity of the partition makes installation of some improvements unreasonable, at the written request of the applicant those improvements may be waived. If the street improvement requirements are waived, the applicant shall pay an in-lieu fee for off-site street improvements, pursuant to the provisions of CDC 85.200(A)(1).

In lieu of accepting an improvement, the Planning Director may recommend to the City Council that the improvement be installed in the area under special assessment financing or other facility extension policies of the City.

**<u>Response:</u>** The City Engineer has determined that certain public improvements are unreasonable in the context of this partition application.

# **IV.** Conclusion

The required findings have been made and this written narrative and accompanying documentation demonstrate the application is consistent with the applicable provisions of the City of West Linn Community Development Code. The evidence in the record is substantial and supports approval of the application. City staff can rely upon this information in their approval of the application.





# **Exhibit A: Preliminary Partition Plans**

# **EVAH LANE PARTITION**



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# PRELIMINARY PLANS





**APPLICANT:** 

O'BRIEN AND COMPANY, LLC P0 B0X 4008 WILSONVILLE, OR 97070

PLANNING/CIVIL ENGINEERING/SURVEYING/
(APPLICANT'S CONSULTANT): AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN ROAD, SUITE 100 TUALATIN, OR 97062
PHONE: (503) 563–6151 FAX: (503) 563–6152 CONTACT: JONATHON MORSE/ZACH PELZ
SITE LOCATION AND ZONING: 1236 14TH STREET WEST LINN, OR 97068 ZONING: R-10
SITE DESCRIPTION: TAX LOT 4001, CLACKAMAS COUNTY ASSESSOR'S MAP 3 1E 02BC. LOCATED IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 2, TOWNSHIP 3 SOUTH, RANGE 1 EAST, WILLAMETTE

MERIDIAN, CITY OF WEST LINN, CLACKAMAS COUNTY, OREGON

# **PROJECT PURPOSE:** TWO PARCEL PARTITION OF EXISTING TAX LOT 4001 LOCATED IN THE R-10 ZONE.

**BENCHMARK:** 

(NAVD 88).

# **TOTAL SITE AREA:**

65,431 SF± (1.50 ACRES±)

SHE	ET	IN	DEX
P01	COV	FR .	SHEET

P01	COVER
P02	EXISTIN
P03	PRELIM
P04	NATUR
P05	PRELIM
P06	PRELIM
P07	PRELIM
P08	PRELIM
P09	PRELIM
P10	PRELIM

VERTICAL DATUM: ELEVATIONS ARE BASED ON NGS BENCHMARK Y723 WITH AN ELEVATION OF 81.25 FEET

SHEET WITH VICINITY AND SITE MAP NG CONDITIONS PLAN MINARY SLOPE ANALYSIS RAL RESOURCES BUFFER DETERMINATION MINARY DEMOLITION, TREE REMOVAL, AND TREE PRESERVATION PLAN MINARY TREE PRESERVATION AND REMOVAL TABLE EAST **MINARY PARTITION PLAT WITH BUILDING SETBACKS** MINARY GRADING, EROSION AND SEDIMENT CONTROL PLAN INARY COMPOSITE UTILITY PLAN INARY STREET PLAN P11 PRELIMINARY AERIAL PHOTOGRAPHY PLAN





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nee #	DBH	Tree Species	Comments	Health Bet 's = *	Structure	Exempt	Remove
20020	(in.)	Common Name (Scientific name)	OFFETTE: Codominant: Loon (N): Crooked: Conony one sided (N)	Rating*	Rating**	Iree***	Preserve
20029	11, 24	Bigleaf Maple (Acer macrophyllum)	OFFSITE: Codominant: Lean (N): Crooked; Canopy one sided (N)	2	2	No	Preserve
30210	10	Deciduous	Not evaluated by an Arborist			-	Preserve
30281	11	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30282	16	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30283	16	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30284	16	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30285	16	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30286	16	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30287	19	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30288	9	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30289	6	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30290	13	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30292	6	Coniferous	Not evaluated by an Arborist			-	Preserve
30293	11	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30294	10	Coniferous	Not evaluated by an Arborist		-	-	Preserve
30295	8	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30296	20	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30297	20	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30298	18	Coniferous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30299	21	Coniferous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30300	19	Coniferous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30301	7	Coniferous	Not evaluated by an Arborist	-	-		Preserve
30302	6, 7	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30303	11, 13, 13	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30339	7,8	Deciduous	Not evaluated by an Arborist	-	-	-	Preserve
30344	6,11	Deciduous	Not evaluated by an Arborist	-	-	-	Preserv
20524	5, 5, 6	Deciduous	Not evaluated by an Arborist		-	-	Preserve
30524	11	Deciduous	Not evaluated by an Arborist	-			Preserve
30526	15	Deciduous	Not evaluated by an Arborist			-	Preserv
30527	13	Deciduous	Not evaluated by an Arborist			-	Preserv
30530	8,13	Coniferous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserv
30531	12	Coniferous	Not evaluated by an Arborist	-	-	-	Preserve
30700	10, 13	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30753	6, 7, 8, 9	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30774	8, 11, 13	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30808	15	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30809	12	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30810	10, 13	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30813	22	Deciduous	OFFSITE; Not evaluated by an Arborist	-	-	-	Preserve
30846	21	Bigleat Maple (Acer macrophyllum)	Large bulges on bole	1	2	No	Preserve
30847	0.12	European White Birch (Betula penaula)	Many bore noies	2	2	Yes	Remove
20902	9,12	Deciduous	Not evaluated by an Arborist	-	-	-	Preserve
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# Total # of Existing Trees Inventoried = 78

## Total # of Existing Onsite Trees = 58

Total # of Existing Offsite Trees = 20 Total # of Existing Offsite Trees to be Preserved = 20 Total # of Existing Onsite Trees to be Preserved = 56 Total # of Existing Onsite Trees to be Removed = 2

# \*Health Rating:

Total # of Existing Offsite Trees to be Removed = 0

1 = Good Health - A tree that exhibits typical foliage, bark, an root characteristics, for its respective species, shows no signs of infection or infestation, an has a high level of vigor an vitality. 2 = Fair Health - A tree that exhibits some abnormal health characteristics an/or shows some signs of infection or infestation, but may be reversed or abated with supplemental treatment. 3 = Poor Health - A tree that is in significant decline, to the extent that supplemental treatment would not likely result in reversing or abating its decline.

## \*\*Structure Rating:

1 = Good Structure - A tree that exhibits typical physical form characteristics, for its respective species, shows no signs of structural defects of the canopy, trunk, an/or root system. 2 = Fair Structure - A tree that exhibits some abnormal physical form characteristics an/or some signs of structural defects, which reduce the structural integrity of the tree, but are not indicative o ninent physical failure, an may be corrected using arboricultural abatement methods.

= Poor Structure - A tree that exhibits extensively abnormal physical form characteristics an/or significant structural defects that substantially reduces the structural viability of the tree, cannot feasibly be abated, an are indicative of imminent physical failure.

## \*\*\*Exempt Tree:

Per the City of West Linn's Community Tree Ordinance, Chapter 8.510, trees listed above as exempt do not meet the City's definition of a tree. A tree is defined as: "Any woody, perennial plant, deciduous, evergreen, or coniferous, having a main stem or trunk of a minimum of 6 inch DBH for Oregon white oak, Pacific madrone, and Pacific dogwood, and 12 inch DBH for all other tree sneries "

### Arborist Disclosure Statement:

Arborists are tree specialists who use their education, knowledge, training, an experience to examine trees, recommend measures to enhance the health of trees, an attempt to reduce the risk of living near trees. The Client an Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understan. Conditions are often hidden within trees an below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees. Neither this author nor AKS Engineering & Forestry, LLC have assumed any responsibility for liability associated with the trees on or adjacent to this site.

At the completion of construction, all trees should once again be reviewed. Lan clearing an removal of adjacent trees can expose previously unseen defects an otherwise healthy trees can be damaged during construction.



TREE PROTECTION NOTE: TREE PROTECTION FENCE DE INSTALLED AS SHOWN ON THE PLANS. TREE PROTECTION FENCE IS SHOWN TO BE INSTALLED WITHIN THE DRIP LINE OF SOME TREES TO BE PRESERVED, HOWEVER, TREE PROTECTION FENCING LOCATIONS HAVE BEEN REVIEWED BY A CERTIFIED ARBORIST AND THE TREE PROTECTION FENCING AS SHOWN SHOULD NOT HAVE ANY SIGNIFICANT NEGATIVE IMPACTS TO THE TREES TO BE PRESERVED.



BRUCE R. BALDWIN CERTIFICATE NUMBER: PN-6666A EXPIRATION DATE: 12/31/20












# **Exhibit B: Partition Application Form**



Planning & Development • 22500 Salamo Rd #1000 • West Linn, Oregon 97068 Telephone 503.656.4211 • Fax 503.656.4106 • westlinnoregon.gov

#### **DEVELOPMENT REVIEW APPLICATION**

For Office Use Only						
STAFF CONTACT	PROJECT NO(S).					
NON-REFUNDABLE FEE(S)	REFUNDABLE DEPOSIT(S)	TOTAL				
Type of Review (Please check all that apply):						
Annexation (ANX) Histor Appeal and Review (AP) * Legisla Conditional Use (CUP) Lot Lir Design Review (DR) Minor Easement Vacation Non-C Extraterritorial Ext. of Utilities Planne Final Plat or Plan (FP) Pre-Ap Flood Management Area Street Hillside Protection & Erosion Control Home Occupation, Pre-Application, Sidewal different or additional application forms, av	ic Review ative Plan or Change ne Adjustment (LLA) */** Partition (MIP) (Preliminary Plat or Plan) onforming Lots, Uses & Structures ad Unit Development (PUD) oplication Conference (PA) */** Vacation k Use, Sign Review Permit, and Tempo ailable on the City website or at City Ha	Subdivision (SUB)  Temporary Uses *  Time Extension * Variance (VAR) Water Resource Area Protection/Single Lot (WAP) Water Resource Area Protection/Wetland (WAP) Willamette & Tualatin River Greenway (WRG) Zone Change orary Sign Permit applications require all.				
Site Location/Address:	4	Assessor's Map No.: 31E02BC				
East of southern terminus of Evah La	ne	Tax Lot(s): 4001				
		Total Land Area: 1.5 acres				
Brief Description of Proposal: 2-Parcel partition of Tax Lot 4001						
Applicant Name: PAT O'BRIEN		Phone:				
Address: PO BOX 4008		Email: Please contact applicant's				
City State Zip: WILSONVILLE, OR 97	070	consultant				
Owner Name (required): PAT O'BRIEN		Phone:				
Address: PO BOX 4008		Email: Please contact applicant's				

Address:PO BOX 4008Email: Please contact applicant's<br/>consultantCity State Zip:WILSONVILLE, OR 97070consultantConsultant Name: JON MORSE, P.E.<br/>(please print)Phone: (503) 563-6151Address:12965 SW HERMAN RD., SUITE 100Email: jonm@aks-eng.com

City State Zip: TUALATIN, OR 97068

1. All application fees are non-refundable (excluding deposit). Any overruns to deposit will result in additional billing.

2. The owner/applicant or their representative should be present at all public hearings.

3. A denial or approval may be reversed on appeal. No permit will be in effect until the appeal period has expired.

4. Three (3) complete hard-copy sets (single sided) of application materials must be submitted with this application. One (1) complete set of digital application materials must also be submitted on CD in PDF format. If large sets of plans are required in application please submit only two sets.

\* No CD required / \*\* Only one hard-copy set needed

The undersigned property owner(s) hereby authorizes the filing of this application, and authorizes on site review by authorized staff. I hereby agree to comply with all code requirements applicable to my application. Acceptance of this application does not infer a complete submittal. All amendments to the Community Development Code and to other regulations adopted after the application is approved shall be enforced where applicable.

Approved applications and subsequent development is not vested under the provisions in place at the time of the initial application. -25-18 Applicant's signature s signature (required Date



# **Exhibit C: Verification of Property Ownership**



## First American Title

Customer Service Department 121 SW Morrison St., Suite 300 Portland, OR 97204 Phone: 503.219.TRIO (8746) Fax: 503.790.7872 Email: cs.portland@firstam.com Date: 1/26/2017

#### **OWNERSHIP INFORMATION**

Owner: Patrick Obrien Coowner: Site: 1236 14th St West

Site: 1236 14th St West Linn 97068-4529 Mail: 8037 SW 17th Ave Portland OR 97219

#### **PROPERTY DESCRIPTION**

Map Grid: 716-G3 Census Tract: 020700 Block: 3013 Neighborhood: WILLAMETTE School Dist: 3J WEST LINN-WILSONVILLE Subdiv/Plat: Willamette & Tualatin Tracts Land Use: RSFR SINGLE FAMILY RESIDENCE Zoning: West Linn-R10 Low Density Residential Waterfront: Tualatin River Watershed: Fanno Creek-Tualatin River Legal: 198 WILLAMETTE&TUALATIN TR PT LTS 41 44&45 & PT VAC ST|Y|177916

#### Parcel #: 00750789 Ref Parcel #: 31E02BC04001 TRS: T: 03S R: 01E S: 02 Q: NW County: Clackamas

#### ASSESSMENT AND TAXATION

Market Land: \$365,655 Market Impr: \$514,370 Market Total: \$880,025 (2016) % Improved: 58 Assessed Total: \$648,513 (2016) Levy Code: 003-002 Tax: \$11,750.96 (2016) Millage Rate: 18.6254

#### **PROPERTY CHARACTERISTICS**

Bedrooms: 5 Baths, Total: 3.50 Baths, Full: 3 Baths, Half: 1 Total Units: 1 # Stories: 2.00 # Fireplaces: 1 Cooling: No Heating: Heat Pump Ext Walls: 2 Building Style: 15 Single family res, class 5

#### Building Area: 4,221 SqFt First Floor: 1,428 SqFt Second Floor: 1,464 SqFt Basement Fin: 694 SqFt Basement Unfin: Basement Total: 694 SqFt Attic Fin: Attic Unfin:

Attic Unfin: Attic Total: Garage:

### Year Built: 1980 Eff Year Built: Lot Size: 1.93 Acres Lot Size: 84,223 SqFt Lot Width: Lot Depth: Roof Material: Roof Shape:

Const Type: 7.0

SALES AND LOAN INFORMATION								
Owner Date Doc # Sale Price Deed Type Loan Amt Loan Type								
OBRIEN, PATRICK R & DEBORAH	07/28/06	0000069328	Trust	\$500,000 Conv/Unk				
OBRIEN, PATRICK R & DEBORAH	04/22/05	0000036079	Trust	\$319,000 Conv/Unk				
OBRIEN, PATRICK R & DEBORAH	01/20/05	0000005662	Trust	\$311,000 Conv/Unk				
	01/01/99	1999-004290						

This title information has been furnished without charge, in conformance with the guidelines approved by the State of Oregon Insurance Commissioner. The Insurance Division cautions intermediaries that this service is designed to benefit the ultimate insureds. Indiscriminate use only benefiting intermediaries will not be permitted. Said services may be discontinued. No liability is assumed for any errors in this report.





) 0,0 0,0		THIS SPACE RESERVED FOR RECORDER'S USE				
	After recording return to: Patrick R. O'Brien 1236 14th Street West Linn, OR 97068					
	Patrick & Deborah O'Brien 1236 14th Street West Ling OR 97/68					
	west Linn, OK 97008 Escrow No. <u>98071756</u> Title No. <u>864457</u>					
	STATUTORY BARGAI	N AND SALE DEED				
	PATRICK ROBERT O'BRIEN AND DEBORAH O'BRIEN AND DEBORAH O'BRIEN, Grantee, the	<u>O'BRIEN</u> , Grantor, conveys to <u>PATRICK R</u> . following described real property:	:			
64457	See Attached Legal Description attached hereto as Exhibit "A" THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30,930.					
NO. B						
	The true consideration for this conveyance is $0.00$ (H	tere comply with the requirements of ORS 93.030)				
$\langle$	Dated this 11, day of January, 1999.					
	Deboral O'Brien					
	STATE OF <u>Oregon</u> County of <u>Clackamas</u> } ss.	99-004	290			
	by Patrick Robert O'Brien and Deborah O'Brien	Inniary , 1999.				
		Notary Public for Oregon				

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#### Order No. 864457

#### EXHIBIT "A"

#### PARCEL I:

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A portion of Lots 41 and 44, WILLAMETTE AND TUALATIN TRACTS, in the City of West Linn, County of Clackamas and State of Oregon, described as follows:

Beginning at the Northeast corner of said Lot 41; thence South 22°21' East 150.00 feet to a % inch iron rod set by Don McIntosh in a recorded survey; thence South 67°39' West parallel with the North line of Lot 41, a distance of 150.0 feet, more or less, to a point in the line common to Lots 41 and 44, a distance of 150.0 feet South of the Northerly corner of these lots, said point being the true point of beginning; thence South 43°00'42° East 132.44 feet; thence South 77°25' East 125.69 feet to a point on the Easterly line of Lot 41; thence South 22°21' East along said Easterly line 234.29 feet to the Southerly line of Lot 41; thence North 77°25' West on said Southerly line and the Southerly line of Lot 44, a distance of 365.93 feet to the West line 0Lot 44; thence North 22°21' West on said West line, 220.80 feet to a point which is South 22°21' East 150.00 feet from the Northwest corner of said Lot 44; thence North 67°39' East parallel with the North line 150.00 feet, more or less, to the true point of beginning.

EXCEPTING THEREFROM that portion thereof conveyed to Harley Briston et ux Deed recorded June 28, 1984 as Fee No. 84 22061, Clackamas County Records.

ALSO EXCEPTING THEREFROM that portion thereof conveyed to Edward F. Wilson, et ux, by Deed recorded May 19, 1989 as Fee No. 89 21291.

TOGETHER WITH that portion of 15th Avenue which inured thereto upon vacation.

#### PARCEL II:

Part of Block 45, WILLAMETTE AND TUALATIN TRACTS, in the City of West Linn, County of Clackamas and State of Oregon, described as follows:

Beginning at the Southeasteriy corner of Block 45; thence along 15th Avenue North 22°20' West 167 feet to the South line of the Ed Grindeland tract; thence South 89°39' West along the South line of said Grindeland tract to the South line of Block 45; thence Easterly along the South line of Block 45 to the place of beginning.

TOGETHER WITH that portion of 15th Avenue which inured thereto upon vacation.

#### PARCEL III:

A portion of Lot 41, WILLAMETTE AND TUALATIN TRACTS, in the City of West Linn, County of Clackamas and State of Oregon, more particularly described as follows:

Beginning at the Northeast corner of said Lot 41; thence South 22°21' East 150.00 feet to the true point of beginning, a % inch rod set by Don McIntosh in a recorded survey; thence South 22°21' East 196.05 feet; thence North 77°25' West parallel with the Southerly line of Lot 41, a distance of 125.96 feet; thence North 43°00'42" West 132.44 feet to a point 150.00 feet from the Northerly line of Lot 41; thence North 67°39' East parallel with the North lot line 150.00 feet more or less, to the point of beginning.

EXCEPTING THEREFROM that portion conveyed to Patrick O'Brien et ux, by Deed recorded April 18, 1989 as Fee No. 89-16176, Clackamas County Records.

ALSO EXCEPTING THEREFROM that portion conveyed to Sharon L. Mitchell by Deed recorded August 5, 1993 as Fee No. 93-55726.

STATE OF OREGON 99-004290 CLACKAMAS COUNTY Received and placed in the public records of Clackamas County RECEIPT# AND FEE: 85878 \$40.00 DATE AND TIME: 01/15/99 11:11 AM JCHN KAUFFMAN, COUNTY CLERK

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## **Exhibit D: HCA Map Redesignation Request**



## Evah Lane 2-Parcel Partition HCA Map Redesignation

DATE:	November 1, 2017
TO:	Peter Spir—City of West Linn Planning Department
FROM:	Haley Smith, MNR, Natural Resource Specialist, AKS Engineering & Forestry, LLC
SUBJECT:	HCA Map Verification and Redesignation
PROJECT:	Evah Lane 2-Parcel Partition

#### **Introduction and Background**

This memorandum is for Tax Lots 3800 and 4001 of Tax Map 3 1E 02BC located in West Linn, Clackamas County, Oregon. The study area contains one residential home and mapped Metro Habitat Conservation Area (HCA) on the study area. The Tualatin River flows easterly within 200 feet of the study area. The City of West Linn uses the Metro HCA map to identify habitat conservation areas of value within the City. The study area contains Moderate value HCA along the southern property boundary. This memorandum addresses the Metro HCA mapped on-site boundary as it is believed that the boundary is in need for redesignation on the study area.

#### **Revision of the HCA Map Boundary**

Per West Linn Community Development Code (CDC) Chapter 28 Willamette and Tualatin River Protection, Section 28.070, Planning Director Verification of Metro Habitat Protection Map Boundaries:

A) The HCA map is the basis for identifying and designating the habitat conservation areas in the City. It is inevitable, given the large area that Metro's HCA Map covers, that there may be some errors. In cases where, for example, three properties share the same contours and the same natural features but the map shows the middle lot with an HCA designation on it, it is reasonable to question the accuracy of that HCA designation. Using tree overstory as the sole basis for HCA designation will also allow a change in designation since trees are already protected in the municipal code and Chapters 55 and 85 CDC.

Per the Metro Urban Growth Management Functional Plan (UGMFP) Title 13 Section 3.07.13d. Administrating the Habitat Conservation Areas map and Site Level Verification of Habitat Location: d.4.Aii 2- "In terms of mapping the location of habitat, the only allowed corrections to the vegetative cover status of a property are those based on an area being developed prior to the local program effective date and those based on errors made at the time the vegetative cover status was determined based on analysis of the aerial photographs used to create the Metro Vegetative Cover Map (for the original map, aerial photos used were Metro's summer 2002 photos) and application of the vegetative cover definitions provided in the footnotes to Table 3.07-13d."



WW.AKS-ENG.COM

P: (503) 563-6151 F: (503) 563-6152

The residential property on the study area was developed prior to 2002. Aerial photos show the home was built before 1991. A review of the summer 2002 aerial photo indicates that, the HCA does not clearly follow vegetation cover of tree overstory (see attached). Additionally, vegetation cover in the study area has not significantly changed since the summer of 2002.

#### CDC Chapter 28.070 (B)

B) The planning director shall verify the appropriate HCA or non-HCA designation by site visits or consultations with Metro or by other means. Determination is based on whether the Metro criteria are met or whether the Metro designation was based solely on tree overstory in which case a redesignation is appropriate. In cases where the determination is that the map is incorrect, the Planning Director will make a written finding of this as well as the site conditions that led to that conclusion.

As previously demonstrated, the Metro designation was based solely on tree overstory and a redesignation is therefore appropriate. A site visit and wetland delineation of the study area was conducted by AKS Engineering & Forestry, LLC (AKS) in January 2017. A portion of a pond with connecting drainages and a fringe wetland was delineated within the study area boundary. The wetland features extend off-site to the south towards the Tualatin River. The vegetation observed on site was non-native and/or invasive. The study area north of the wetland contains two small clusters of Douglas fir (*Pseudotsuga menziesii*) and red alder (*Alnus rubra*). The understory is predominately Himalayan blackberry (*Rubus armeniacus*), tall fescue (*Schedonorus arundinaceus*), and colonial bentgrass (*Agrostis capillaris*). Himalayan blackberry is considered an invasive species. The middle portion of the study area north of the wetland is also predominately Himalayan blackberry, along with reed canarygrass (*Phalaris arundinacea*). No vegetative overstory is present in this portion of the study area.

Per Metro Title 13:3.07.1340 d. Administering the Habitat Conservation Areas Map and Site Level Verification of Habitat Location d. (4) Habitat Boundaries (A) Location riparian habitat and determine its habitat class is a five step process.

Step 1. Locate the water feature that is the basis for identifying riparian habitat: 1) Locate the top of the bank of all streams, rivers, and open water within 200 feet of the property; 2) Locate all flood areas within 100 feet of the property; 3) Locate all wetlands within 150 feet of the property based on the local wetland inventory map (if completed) and on the Metro 2004 Wetland Inventory Map. Identified wetlands shall be further delineation consistent with methods currently accepted by the Oregon Division of State Lands and the US Army Corps of Engineers.

All wetland and water features were identified on the study area as described above. The Tualatin River was identified on the LWI within 200 feet of the study area, as well as a wetland. A floodplain boundary was identified on the study area and mapped. The wetland was delineated by AKS Natural Resource Specialists and professionally surveyed by AKS. The wetland boundary is consistent with the City of West Linn's Water Resource Area (WRA) map.





(ii) Step 2. Identify the vegetative cover status of all areas on the property that are within 200 feet of the top of bank of streams, river and open water, are wetlands or are within 150 feet of wetlands, and are flood areas and within 100 feet of flood areas.

The HCA is low quality due to the dominance of non-native and invasive plant species. The hillslope on the study area is vegetated with Himalayan blackberry with no overstory coverage. The remaining area bordering the drainage and wetland consists of mowed field grasses. The HCA map does not follow the vegetative overstory based on the 2002 summer aerial and overstory currently present. The HCA boundary lines are not consistent with the natural features of the property and should be redesignated based on the present canopy cover, as shown on attached Figure 1 and Representative Site Photographs.

#### Summary

This memo proposes a redesignation of the HCA map to align with the native tree canopy cover and habitat conditions on-site. The purpose of the HCA is to provide overlapping continuous canopy for wildlife. The study area is characterized by disconnected vegetation and canopy cover. The northern portion of the HCA does not contain a tree overstory matching the HCA mapped boundary and the majority of groundcover is dominated by invasive Himalayan blackberry. This area is of low habitat value and should not be mapped as HCA.

Please do not hesitate to contact me with any questions regarding this memo.

mith

Haley Smith, MNR Natural Resources Specialist Fieldwork and Report Preparation

List of Attachments West Linn HCA Map HCA Redesignation Plan Representative Site Photographs







HCA Redesignation, West Linn OR Representative Photos | AKS Job #5579





Photo A. View facing northeast of slope and mapped HCA.



Photo C. View west of mapped HCA.



Photo B. View facing northwest of slope and mapped HCA.



**Photo D.** View facing north of vegetation in mapped HCA.



DWG: 5579 STREET WAIVER | 7



DWG: 5579 HCA REDUCTION | E01

## Evah Lane 2-Parcel Partition West Linn, Oregon Natural Resource Assessment

Date:

November 1, 2017

**Prepared for:** 

Assessor's

Information:

O'Brien Constructors, LLC 8037 SW 17<sup>th</sup> Avenue Portland, OR 97219

Prepared By: Haley Smith, MNR, Natural Resource Specialist AKS Engineering & Forestry, LLC

> Clackamas County Tax Map 3 1E 02BC; Tax Lots 3800 and 4001



### **Table of Contents**

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### **Tables**

Table 1. Summar	v of Protected WRA Resource and Associated Width of WRA

### **Figures**

Figure 1.	USGS Vicinity Map
Figure 2.	Tax Map (Map 3 1E 02BC)
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Figure 4.	Local Wetland Inventory map
Figure 5.	City of West Linn WRA Map
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#### Appendices Appendix A: Wetland Determination Data Sheets

- **Appendix B:** VECO Data Sheets (VECO Plots A B)
- Appendix C: Representative Photographs

#### **Introduction and Background**

AKS Engineering & Forestry, LLC (AKS), was contracted by O'Brien Constructors, LLC to conduct a Natural Resource Assessment for Tax Lots 3800 and 4001 of Tax Map 3 1E 02BC located in West Linn, Clackamas County, Oregon (Figures 1 and 2).

This report describes the results of the on-site portions of one palustrine scrub-shrub/emergent (PSS/PEM) wetland and associated Water Resource Area (WRA) buffer within the Tualatin River watershed. In addition, Moderate Value Title 13 Habitat Conservation Areas (HCA) is mapped extending throughout the majority of the site. A Habitat Conservation Area (HCA) Map Redesignation memo is being submitted concurrently with this report to the City of West Linn Planning Department. The project (referred to as Evah Lane 2-Parcel Partition) consists of a two-parcel partition of tax lot 4001. No development is proposed at this time, and no impacts to the WRA or HCA will occur.

This report has been prepared to meet City of West Linn Community Development Code (CDC) Chapter 28, Willamette and Tualatin River Protection, and Chapter 32, Water Resource Area Protection.

#### **Existing Site Conditions**

The study area consists of one single-family home on a slope overlooking the Tualatin River. The slope is dominated by invasive Himalayan blackberry (*Rubus armeniacus*). A portion of a constructed pond is at the bottom of the slope along the southern property boundary. The pond, along with associated drainages, are within a portion of wetland present within the project site, and extens off-site to the south towards the Tualatin River. Topography on-site consists of a steep hillslope (greater than 25% slope) to the northeast that becomes more gradual (less than 25% slope) moving west. The hillslope slopes south towards the wetland and pond.

According to the Clackamas County hydric soils list and the Natural Resources Conservation Service's (NRCS) Soil Survey Map for Clackamas County, the following soil units are mapped within the study area (Figure 3):

- Unit 19 Cloquato silt loam, non-hydric, with 2% hydric Wapato and 1% hydric Aquolls in floodplains.
- Unit 91C Woodburn silt loam, 8% to 15% slopes, non-hydric, with 2% hydric Dayton in nonfloodplain terraces and 15% hydric Aquolls in floodplains

According to the City of West Linn's Local Wetland Inventory (LWI) map, one field verified wetland is mapped on the project site (Figure 4). Our study agrees with the location and mapping of the on-site wetland. The City also maintains a Water Resource Area (WRA) map that illustrates the approximate boundary of a wetland in the vicinity of LWI-and field-verified wetland (Figure 5). Lastly, the City maintained HCA map shows Moderate Value HCA mapped on the majority of the project site (Figure 6). As discussed in more detail in the November 1, 2017memo that suggests a redesignation of the HCA on the site, the City's HCA mapping incorrectly includes area of the site that do not include habitat areas.

#### **Existing Protected Water Features**

The methodology used for determining the presence of wetlands followed the U.S. Army Corps of Engineers' (Corps) *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (Corps 2010), used by both the Corps and the Oregon Department of State Lands (DSL).



A site visit was conducted on January 24, 2017 by AKS Natural Resource Specialist Haley Smith, MNR, to determine whether potentially jurisdictional wetland and waters were present on site. The boundary of one wetland, which includes a portion of a constructed pond and two drainages, was delineated on the project site. The wetland boundary was flagged by AKS and professionally land surveyed by AKS. The location of the wetland boundary is shown on Figure 7. The wetland determination data sheets are included in Appendix A.

The PSS/PEM wetland is located in the southern portion of the project site and extends off site to the south towards the Tualatin River. The on-site portion of the wetland belongs to the Slope Hydrogeomorphic (HGM) sub-classification. The wetland is dominated by reed canarygrass (*Phalaris arundinacea*, FACW), Himalayan blackberry (*Rubus armeniacus*, FAC), American speedwell (*Veronica americana*, OBL), tall fescue (*Schedonorus arundinaceus*, FAC), and red alder (*Alnus rubra*, FAC). The soils in the wetland are low chroma (chroma of 2 or less) and display prominent redoximorphic features, meeting hydric soil indicator F6 Redox Dark Surface. A water table was present within 12 inches from the surface, meeting primary wetland hydrology indicators. The wetland boundary is based on a change in topography from hillslope to toe of the slope and a correlated change in hydrophytic vegetation. A small pond has been excavated in the northern boundary of the wetland and two drainage ditches within the wetland boundary drain into the pond.

#### **Extent of WRA**

According to Table 32-2, Required Width of WRA, in Chapter 32, Water Resource Area Protection of the City of West Linn's CDC, the width of the WRA setback varies on the type of feature (wetland, water, type of water, and riparian corridor) and slope adjacent to each Protected WRA Resource. Based on the City's criteria, the table below summarizes the WRA setback widths associated with wetland delineated on the project site.

	Slope Adjacent to Protected WRA	Width of WRA Setback	
Protected WRA Resource	Resource	(feet)	
Water Resource (Wetland)	< 25%	65	
Water Resource (Wetland)	>25% with distinct top of slope	50 from top of slope	
Water Resource (Wetland)	>25% with no distinct top of slope	200	

Table 1. Summary of Protected WRA Resource and Associated Width of WRA

The WRA setback and size surrounding the Protected WRA Resource is shown on the attached Site Plan (Figure 7). The setback extends from the edge of the delineated wetland boundary.

### **Existing Condition of the WRA**

The existing condition of the on-site WRA was determined based on the presence of native vegetation, water features, and slope, consistent with CDC Section 32.050.F. The existing condition of the on-site WRA is described by two vegetative communities, documented at VECO Plots A and B. In general, the WRA within the project boundaries consists of invasive Himalayan blackberry, non-native grasses, and some native tree canopy.

The vegetation community documented at VECO Plot A represents the vegetation along the hillslope with less than 25% slope. The dominant vegetation includes Himalayan blackberry (*Rubus armeniacus*) and reed canarygrass (*Phalaris arundinacea*). A cluster of native trees (Douglas fir, big-leaf maple, and



red alder) are rooted on the western boundary of the plot. The vegetation community associated with VECO Plot A is determined to be in *degraded* condition.

The vegetation community documented at VECO Plot B represents the vegetation along the steep (greater than 25%) slopes portion of the hillslope. The dominant vegetation includes Himalayan blackberry (*Rubus armeniacus*), Douglas fir (*Pseudotsuga menziesii*), big-leaf maple (*Acer macrophyllum*), Oregon white oak (*Quercus garryana*), and pacific dogwood (*Cornus nuttallii*). The vegetation community associated with VECO Plot B is determined to be in *marginal* condition.

The data sheets for VECO Plots A and B are included in Appendix B, and the plot locations are shown on Figure 7. Representative photos documenting the existing conditions of the site are included in Appendix C.

### Project

The project involves a two-parcel partition of tax lot 4001. The partition will divide the lot on the west side, separating the existing residence from the open space to the west. The project follows CDC Section 28.110.H and will maintain buildable land on the divided parcels. No development is proposed and no impacts will occur. The Site Plan is included as Figure 7.

#### Habitat Conservation Area - Basic Map Verification

Based on our site visits, the City/Metro HCA map for the site appears to be incorrectly mapped. The HCA Map Redesignation Memo is being submitted by the applicant concurrently with this report.

#### **Summary**

A total of approximately 1.09 acres (+/- 47,896 square feet) of WRA buffer is present tax lot 4001, and it is in degraded condition. The project consists of a two-parcel partition of tax lot 4001 and it will not impact the on-site wetland or WRA; therefore, no mitigation is necessary for this project.

Please do not hesitate to contact me if you have questions regarding this project.

### **List of Preparers**

Haley Smith, MNR Natural Resource Specialist Fieldwork and Report Preparation





DWG 5579 20171018 NRA FIGURES | FIGURE 1



DWG 5579 20171018 NRA FIGURES | FIGURE 2



MAP UNIT SYMBOL	MAP UNIT NAME			
19	CLOQUATO SILT LOAM; NON-HYDRIC			
91C	WOODBURN SILT LOAM, 8% TO 15% SLOPES; NON-HYDRIC			



DWG 5579 20171018 NRA FIGURES | FIGURE 3



# DATE: 10/18/2017

4

DRWN: KMK

CHKD: SAR

5579

AKS JOB:

LOCAL WETLAND INVENTORY MAP EVAH LANE 2-PARCEL PARTITION NATURAL RESOURCE ASSESSMENT

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AKS ENGINEERING & FORESTRY, LLC

12965 SW HERMAN RD

TUALATIN, OR 97062

PHONE: 503.563.6151

DWG 5579 20171018 NRA FIGURES | FIGURE 4

250

SCALE: 1"= 250 FEET

0

100 150 200 250



DWG 5579 20171018 NRA FIGURES | FIGURE 5



DWG 5579 20171018 NRA FIGURES | FIGURE 6



PROJECT AREA SUMMARY BY PARCEL						
PARCEL	WETLAND ON-SITE	WATER RESOURCE AREA ON SITE	UTILITY EASEMENT	BUILDABLE LAND AVAILABLE	PARCEL AREA	
PARCEL 1	8,723 ± SF	40,518 ± SF	4,352 ± SF	9,786 ± SF	50,255 ± SF	
PARCEL 2	2,017 ± SF	7,378 ± SF	4,496 ± SF	6,539 ± SF	15,176 ± SF	

NATURA

ΞG

OREGON

WEST LINN

GSH JMM

AS NOTED



## Appendix A: Wetland Determination Data Sheets

#### WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Evah Lane 2-Parcel Partition		City/County:	: West Linn/Cla	ackamas	Sampling Date:	01/24/20127		
Applicant/Owner: O'Brien & Company, LLC				State: OR	Sampling Poin	it: <b>1</b>		
Investigator(s): Haley Smith		Section,	Township, Rang	je: Sec. 02BC, T. 3S, R	1E			
Landform (hillslope, terrace, etc.): Hillslope			Local relief (	(concave, convex, none):	Convex Slop	e (%): <5%		
Subregion (LRR): A, Northwest Forests and Co	ast	Lat:	Lon	ıg:	Datum:			
Soil Map Unit Name: (Unit 19) Cloquato	Silt Loam	· · · · · · · · · · · · · · · · · · ·	_	NWI	classification:			
Are climatic / hydrologic conditions on the site typ	pical for this time	of year?	Ye	s X No	(If no, explain	in Remarks)		
Are Vegetation,Soil	, or Hydrology	significantly	disturbed? A	Are "Normal Circumstar	ices" present? Ye	s <u>X</u> No		
Are Vegetation,Soil,Soil,SUMMARY OF FINDINGS – Attach s	, or Hydrology	naturally pro	blematic? (	If needed, explain any a	answers in Remarks	.) es. etc.		
Hydrophytic Vegetation Present?	Yes X	No			<u>ipertuit reature</u>			
Hydric Soil Present?	Yes	No X	Is the Samp	led Area				
Wetland Hydrology Present?	Yes	No X	within a We	tland? Yes	No X			
Precipitation: According to the NWS Portland sta	tion, trace amou	ints of rainfall was r	received on the	day of the site visit and	3.22 inches of rainfa	all with 8.00		
inches of snowfall was recieved within the two we	eeks prior.							
Remarks: Plot located upslope from wetland, nea	ar unpaved-grass	s vegetated drivewa	ay down to field.					
VEGETATION								
	Absolute	Dominant	Indicator	Dominance Test w	orksheet:			
<u>Iree Stratum</u> (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominan	t Species			
1.			. <u> </u>	That Are OBL, FAC	N, or FAC:	<u>4</u> (A)		
2.								
3.			. <u> </u>	Total Number of Dor	minant			
4.			. <u> </u>	Species Across All S	Strata:	<u>4</u> (B)		
	0%	= Total Cover						
Sapling/Shrub Stratum (Plot size:10' r_	_)			Percent of Dominant	t Species			
1. Rubus armeniacus	10%	Yes	FAC	That Are OBL, FAC	<i>N</i> , or FAC: <u>10</u>	<u>0%</u> (A/B)		
2	<u> </u>	<u> </u>	. <u></u>	Prevalence Index w	vorksheet:			
3		<u>.</u>		Total % Cover	of: Multiply by:			
4.	<u> </u>	<u> </u>	. <u></u>	OBL species	0 x 1 =	0		
5	<u> </u>	<u>.</u>		FACW species	10 x 2 =	20		
	10%	= Total Cover		FAC species 8	35 x 3 =	255		
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				FACU species	5 x 4 =	20		
1. Schedonorus arundinaceus	25%	Yes	FAC	UPL species	<u>0</u> x 5 =	0		
2. Agrostis capillaris	25%	Yes	FAC	Column Totals: 1	00 (A)	295 (B)		
3. Holcus lanatus	25%	Yes	FAC	Prevalence Inde	x = B/A =	<u>2.95</u>		
4. Phalaris arundinacea	10%	No	FACW	Hydrophytic Veget	ation Indicators:			
5. Taraxacum officinale	5%	No	FACU	1 - Rapid Test fo	or Hydrophytic Veget	tation		
6.				X 2 - Dominance T	est is >50%			
7				X 3 - Prevalence li	ndex is ≤3.0 <sup>1</sup>			
8				4 - Morphologica	al Adaptations <sup>1</sup> (Pro	ovide support		
9.				data in Rema	arks or on a separate	e sheet)		
10.				5 - Wetland Non	I-Vascular Plants <sup>1</sup>			
11.				Problematic Hyd	frophytic Vegetation	<sup>1</sup> (Explain)		
	90%	= Total Cover		<sup>1</sup> Indicators of hy	dric soil and wet	land hydrolog		
Woody Vine Stratum (Plot size:10' r_	_)	'		be present.		-		
1								
2			. <u></u>	Hydrophytic	V. V. N.			
	0%	= I otal Cover		Vegetation	Yes <u>X</u> NO			
% Bare Ground in Herb Stratum 10%				Present?				
Remarks:								
		La Landlara		ent the indicator o	r confirm the	absonce of ind	icators )	
--	--	--	---	---	--	---	--	---
Profile Description:	(Describe to t	ne depth need	ded to docum				icators.)	
Depth	Matrix			Redox Fe	atures			
(inches) Co	olor (moist)	%	Color (moist	) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-14+	10YR 3/3	100					SiL	
ype: C=Concer	ntration, D=D	Depletion, R	M=Reduced	d Matrix CS=Cov	vered or Co	pated Sand Gr	ains. 2Locat	ion: PL=Pore
dric Soil Indicator	s: (Applicable	to all LRRs, u	nless otherw	ise noted.)		Indicators for	Problematic Hydr	ic Soils <sup>3</sup> :
Histosol (A1)			Sandy Redo	x (S5)		2 cm Mucl	k (A10)	
Histic Epipedon (	A2)		Stripped Mat	trix (S6)		Red Parer	nt Material (TF2)	
Black Histic (A3)			Loamy Muck	ky Mineral (F1) <b>(exc</b>	cept MLRA	<b>1</b> Very Shall	ow Dark Surface (T	F12)
Hydrogen Sulfide	(A4)		Loamy Gleye	ed Matrix (F2)		Other (Exp	olain in Remarks)	
Depleted Below	Dark Surface (A	11)	Depleted Ma	atrix (F3)				
Thick Dark Surface	ce (A12)		Redox Dark	Surface (F6)		<sup>3</sup> Indicators	of hydrophytic ve	egetation and
Sandy Mucky Mir	neral (S1)		Depleted Da	rk Surface (F7)		wetland hyd	rology must be pres	ent,
	atrix (S4)		Redox Depre	essions (F8)		unless distu	rbed or problematic.	
Sandy Gleyed Ma strictive Layer (if Type: Depth (inches): marks: Burnt bark/	present):	nall gravels mi	xed throughou	t soil profile.	ł	Hydric Soil Prese	ent? Yes	No <u>X</u>
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/	present):	nall gravels miz	xed throughou	t soil profile.	ł	Hydric Soil Prese	ent? Yes	No <u>X</u>
estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/o	present): charcoal and sn	nall gravels mix	xed throughou	t soil profile.	}	Hydric Soil Prese	ent? Yes	No <u>X</u>
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/ PDROLOGY etland Hydrology I rimary Indicators (mi	present): charcoal and sn ndicators: inimum of one r	nall gravels miz	xed throughou	t soil profile.	1	Hydric Soil Prese	ent? Yes	No X
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/ PDROLOGY fetland Hydrology I rimary Indicators (mi Surface Water (A	present): charcoal and sn ndicators: inimum of one r	nall gravels mix equired; check	xed throughou	t soil profile. ed Leaves (B9) <b>(ex</b>	cept MLR/	Hydric Soil Prese <u>Secondary Inc</u> Water-Sta	ent? Yes	No X equired) MLRA 1, 2,
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/o YDROLOGY etland Hydrology I imary Indicators (mi Surface Water (A High Water Table	present): charcoal and sn ndicators: inimum of one r .1) e (A2)	nall gravels miz	xed throughou all that apply) Water-Staino 1, 2, 4A, a	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B)	cept MLR/	Hydric Soil Prese <u>Secondary Inc</u> A <u>Water-Sta</u> 4A, anc	ent? Yes licators (2 or more re ined Leaves (B9) (N	No X equired) MLRA 1, 2,
Sandy Gleyed Ma estrictive Layer (if   Type: Depth (inches): emarks: Burnt bark/o YDROLOGY etland Hydrology I imary Indicators (mi Surface Water (A High Water Table Saturation (A3)	present): charcoal and sn ndicators: inimum of one r (1) e (A2)	nall gravels miz	xed throughou all that apply) Water-Staine 1, 2, 4A, a Salt Crust (E	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 811)	cept MLR/	Hydric Soil Prese <u>Secondary Inc</u> Water-Sta 4A, anc Drainage I	ent? Yes licators (2 or more ro ined Leaves (B9) (N I 4B) Patterns (B10)	No X equired) MLRA 1, 2,
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of YDROLOGY etland Hydrology I imary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1	present): charcoal and sn ndicators: inimum of one r (1) (A2) )	nall gravels mix	xed throughou all that apply) Water-Stain 1, 2, 4A, a Salt Crust (E Aquatic Inve	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 311) rtebrates (B13)	cept MLR/	Hydric Soil Prese <u>Secondary Inc</u> A Water-Sta 4A, and Drainage I Dry-Seaso	ent? Yes dicators (2 or more re ined Leaves (B9) (N d 4B) Patterns (B10) on Water Table (C2)	No X equired) MLRA 1, 2,
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of YDROLOGY etland Hydrology I imary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposi	present): charcoal and sn ndicators: inimum of one r (1) (A2) ) ts (B2)	nall gravels mix equired; check	xed throughou all that apply) Water-Staine 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen St	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) B11) irtebrates (B13) ulfide Odor (C1)	cept MLR/	Hydric Soil Prese <u>Secondary Inc</u> A Water-Sta 4A, and Drainage I Dry-Seaso Saturation	ent? Yes licators (2 or more re ined Leaves (B9) <b>(N</b> I 4B) Patterns (B10) on Water Table (C2) Visible on Aerial Im	No X equired) MLRA 1, 2,
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Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of YDROLOGY etland Hydrology I imary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3) Algal Mat or Crus	present): charcoal and sn ndicators: inimum of one r (1) (A2) (S) ts (B2) (B2) (B4)	nall gravels mix	xed throughou all that apply) Water-Stain <b>1, 2, 4A, a</b> Salt Crust (E Aquatic Inve Hydrogen Su Oxidized Rh Presence of	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4)	cept MLRA	Hydric Soil Prese Secondary Inc A Water-Sta 4A, and Drainage I Dry-Seaso Saturation 3) Geomorph Shallow A	ent? Yes dicators (2 or more re- ined Leaves (B9) (N 4 4B) Patterns (B10) on Water Table (C2) visible on Aerial Im- nic Position (D2) quitard (D3)	No X equired) MLRA 1, 2, hagery (C9)
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Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of YDROLOGY etland Hydrology I imary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Surface Soil Crac Inundation Visible Sparsely Vegetat	present): present): charcoal and sn ndicators: inimum of one r 1) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A2) (A3) (A3) (A4)	equired; check	xed throughou all that apply) Water-Staine 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduced Iron (C4) Reduction in Tilled S tressed Plants (D1) ain in Remarks)	ving Roots (C Soils (C6) (LRR A)	A Secondary Inc. A Water-Sta 4A, and Drainage I Dry-Seaso Saturation 3) Geomorph Shallow A FAC-Neut Raised An Frost-Hea	ent? Yes dicators (2 or more re- ined Leaves (B9) (N 4 4B) Patterns (B10) on Water Table (C2) Visible on Aerial Im- hic Position (D2) quitard (D3) ral Test (D5) ht Mounds (D6) (LR ve Hummocks (D7)	No X equired) MLRA 1, 2, hagery (C9) R A)
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of YDROLOGY /etland Hydrology I fimary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Surface Soil Crac Inundation Visible Sparsely Vegetat eld Observations:	present): charcoal and sn ndicators: inimum of one r (1) (A2) (5) (5) (B2) (5) (B4) (5) (Concave Su (Concave Su	equired; check	xed throughou all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (E Aquatic Inve Hydrogen Su Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduced Iron (C4) Reduction in Tilled S itressed Plants (D1) ain in Remarks)	ving Roots (C Soils (C6) (LRR A)	A Secondary Inc A Water-Sta 4A, and Drainage I Dry-Seasc Saturation 3) Geomorph Shallow A FAC-Neut Raised An Frost-Hea	ent? Yes dicators (2 or more re- ined Leaves (B9) (N 4 4B) Patterns (B10) on Water Table (C2) visible on Aerial Im- nic Position (D2) quitard (D3) ral Test (D5) it Mounds (D6) (LR ve Hummocks (D7)	No X equired) MLRA 1, 2, hagery (C9) R A)
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of PDROLOGY etland Hydrology I rimary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3) Algal Mat or Crus Iron Deposits (B3) Surface Soil Cruc Iron Deposits (B5) Surface Soil Cruc Inundation Visible Sparsely Vegetat eld Observations: Surface Water Prese	present): present): charcoal and sn ndicators: inimum of one r (1) (A2) (A2) (A2) (A2) (B2) (B2) (B2) (B3) (B4) (B4) (C) (C) (C) (C) (C) (C) (C) (C	equired; check	xed throughou all that apply) Water-Staine <b>1, 2, 4A, a</b> Salt Crust (E Aquatic Inve Hydrogen Su Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain Other (Explain OX	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S itressed Plants (D1) ain in Remarks) Depth (inches):	ving Roots (C Soils (C6) (LRR A)	Hydric Soil Prese Secondary Inc A Water-Sta 4A, and Drainage I Dry-Seaso Saturation 3) Geomorph Shallow A FAC-Neut Raised An Frost-Hea	ent? Yes dicators (2 or more re- ined Leaves (B9) (N 4 4B) Patterns (B10) on Water Table (C2) Visible on Aerial Im- hic Position (D2) quitard (D3) ral Test (D5) It Mounds (D6) (LR ve Hummocks (D7)	No X equired) MLRA 1, 2, hagery (C9) R A)
Sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of PUDROLOGY /etland Hydrology I fimary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B3 Surface Soil Crac Inundation Visible Sparsely Vegetat Feld Observations: Surface Water Present	present): present): charcoal and sn ndicators: inimum of one r (1) (A2)	equired; check	xed throughou xed throughou Water-Staine 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduced Iron (C4) Reduction in Tilled S tressed Plants (D1) ain in Remarks) Depth (inches): Depth (inches):	ving Roots (C Soils (C6) (LRR A)	Hydric Soil Press Secondary Inc A Water-Sta 4A, and Drainage I Dry-Seaso Saturation 3) Geomorph Shallow A FAC-Neut Raised An Frost-Hea Wetland H	ent? Yes dicators (2 or more re- ined Leaves (B9) (N 4 4B) Patterns (B10) on Water Table (C2) Visible on Aerial Im- nic Position (D2) quitard (D3) ral Test (D5) it Mounds (D6) (LR ve Hummocks (D7) Hydrology Present'	No X equired) MLRA 1, 2, hagery (C9) R A)
sandy Gleyed Ma estrictive Layer (if Type: Depth (inches): emarks: Burnt bark/of IYDROLOGY /etland Hydrology I rimary Indicators (mi Surface Water (A High Water Table Saturation (A3) Water Marks (B1 Sediment Deposit Drift Deposits (B3 Algal Mat or Crus Iron Deposits (B5 Surface Soil Crac Inundation Visible Sparsely Vegetat eld Observations: Surface Water Prese Vater Table Present Saturation Present?	present): charcoal and sn ndicators: inimum of one r (1) (A2)	nall gravels mix equired; check 	xed throughou all that apply) Water-Staine 1, 2, 4A, a Salt Crust (E Aquatic Inve Hydrogen Sta Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain o X o X o X	t soil profile. ed Leaves (B9) <b>(ex</b> and 4B) B11) rtebrates (B13) ulfide Odor (C1) izospheres along Liv Reduced Iron (C4) Reduction in Tilled S itressed Plants (D1) ain in Remarks) Depth (inches): Depth (inches): Depth (inches):	cept MLR/           ving Roots (C:           Soils (C6) (LRR A)           >14"           >14"	Aydric Soil Prese Secondary Inc A Water-Sta 4A, and Drainage I Dry-Seasc Saturation 3) Geomorph Shallow Ai FAC-Neut Raised An Frost-Hea Wetland H	ent? Yes licators (2 or more re- ined Leaves (B9) (N I 4B) Patterns (B10) on Water Table (C2) visible on Aerial Im- nic Position (D2) quitard (D3) ral Test (D5) it Mounds (D6) (LR ve Hummocks (D7) Hydrology Present? Yes	No X equired) MLRA 1, 2, hagery (C9) R A)

### WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Evah Lane 2-Parcel Partition		City/County:	West Linn/Cla	ackamas	Sampling Date: 01	/24/20127
Applicant/Owner: O'Brien & Company, LLC				State: OR	Sampling Point:	2
Investigator(s): Haley Smith		Section, T	ownship, Rang	e: Sec. 02BC, T. 3S, R.	1E -	
Landform (hillslope, terrace, etc.): Hillslope			Local relief (	concave, convex, none):	Concave Slope (	%): <3%
Subregion (LRR): A, Northwest Forests and Co	past	Lat:	Lon	g:	Datum:	
Soil Map Unit Name: (Unit 19) Cloquate	o Silt Loam		_	NWI cl	assification:	
Are climatic / hydrologic conditions on the site ty	pical for this time	of year?	Ye	s X No	(If no, explain in I	Remarks)
Are Vegetation,Soil	, or Hydrology	significantly of	disturbed? A	re "Normal Circumstand	es" present? Yes	X_No
Are Vegetation,Soil,S	_, or Hydrology site map shov	naturally prol ving sampling	blematic? (I point locati	If needed, explain any ar ons, transects, im	nswers in Remarks.) portant features	, etc.
Hydrophytic Vegetation Present?	Yes X	No				
Hydric Soil Present?	Yes X	No	Is the Samp	led Area		
Wetland Hydrology Present?	Yes X	No	within a We	tland? Yes X	(No	
Precipitation: According to the NWS Portland sta inches of snowfall was recieved within the two w	ation, trace amou /eeks prior.	nts of rainfall was re	eceived on the o	day of the site visit and 3	8.22 inches of rainfall v	with 8.00
Remarks: Plot located approximately 8 feet from	upland Plot 1.					
VEGETATION						
	Absolute	Dominant	Indicator	Dominance Test wo	rksheet:	
Tree Stratum (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant	Species	
1.				That Are OBL, FACW	/, or FAC: 2	(A)
2.						
3.				Total Number of Dom	ninant	
4.				Species Across All St	rata: 2	(B)
	0%	= Total Cover				
Sapling/Shrub Stratum (Plot size:10' r_	_)			Percent of Dominant	Species	
1	_			That Are OBL, FACW	/, or FAC: <u>100%</u>	<u>a</u> (A/B)
2				Prevalence Index we	orksheet:	
3.				Total % Cover o	f: Multiply by:	
4				OBL species 0	x 1 =	0
5				FACW species 7	$5 \times 2 = $	150
	0%	= Total Cover		FAC species 2	0 x 3 =	60
<u>Herb Stratum</u> (Plot size: <u>5 r</u> )				FACU species 0	x 4 =	0
1. Phalaris arundinacea	75%	Yes	FACW	UPL species 0	x 5 =	0
2. <u>Schedonorus arundinaceus</u>	20%	Yes	FAC	Column Totals: 9	5 (A) 2	2 <u>10</u> (B)
3.				Prevalence Index	= B/A = 2.2	21
4.				Hydrophytic Vegeta	tion Indicators:	
5. 				1 - Rapid Test for	Hydropnytic Vegetati	on
o				X 2 - Dominance Te	est is >50%	
/				X 3 - Prevalence In	dex is ≤3.0	
o				4 - Morphological	Adaptations (Provi	de support
3. 10						lieet)
11.				Droblomatic Live	vascular Plants	Evolain)
····	05%	- Total Covor		<sup>1</sup> Indicators of hydr	opnytic vegetation (	Explain)
Woody Vine Stratum (Plot size: 10' r	_)			be present.		
1	·					
2.				Hydrophytic		
	0%	= Total Cover		Vegetation	Yes X No	
% Bare Ground in Herb Stratum 5%				Present?		
Remarks:						

SOIL							. <b>L</b>
Profile Description: (Desc	ribe to the depth r	needed to document	the indicator o	r confirm the	e absence of inc	licators.)	
Depth	Matrix		Redox Fe	atures			
(inches) Color (me	oist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7 10YR 4	l/1 95	10YR 4/4	5	С	M & PL	SiCL	
7-16+ 10YR 5	5/1 80	10YR 4/6	20	С	М	SiCL	
			·				
Type: C=Concentration	on, D=Depletion,	, RM=Reduced Ma	atrix CS=Cov	vered or Co	pated Sand G	rains. 2Locatio	n: PL=Pore
ydric Soil Indicators: (Ap	plicable to all LRR	s, unless otherwise n	oted.)		Indicators fo	or Problematic Hydric	Soils <sup>3</sup> :
Histosol (A1)		Sandy Redox (St	5)		2 cm Muc	ck (A10)	
Histic Epipedon (A2)		Stripped Matrix (	S6)		Red Pare	ent Material (TF2)	
Black Histic (A3)		Loamy Mucky Mi	neral (F1) <b>(exc</b>	ept MLRA	<b>1)</b> Very Sha	llow Dark Surface (TF1	12)
Hydrogen Sulfide (A4)		Loamy Gleyed M	atrix (F2)		Other (Ex	plain in Remarks)	
Depleted Below Dark Su	urface (A11)	X Depleted Matrix (	(F3)				
Thick Dark Surface (A12	2)	Redox Dark Surf	ace (F6)		<sup>3</sup> Indicators	of hydrophytic veg	getation and
Sandy Mucky Mineral (S	51)	Depleted Dark S	urface (F7)		wetland hyd	drology must be presen	nt,
Sandy Gleyed Matrix (Se	4)	Redox Depressio	ons (F8)		unless distu	urbed or problematic.	
				I			
estrictive Laver (if presen	III):						
estrictive Layer (if presen Type:	it):						
estrictive Layer (if presen Type: Depth (inches):				I	Hydric Soil Pres	ent? Yes X	No
Setrictive Layer (if presen Type: Depth (inches): Semarks: Semarks: Setup Contemporation Setup Contemporation Setu	ors:				Hydric Soil Pres	ent? Yes <u>X</u>	No
	ors: of one required; ch	eck all that apply)			Hydric Soil Pres	ent? Yes X	No
	ors:	eck all that apply) Water-Stained Le	eaves (B9) <b>(ex</b>	cept MLR/	Hydric Soil Pres	ent? Yes X dicators (2 or more rec ained Leaves (B9) (MI	No <u>quired)</u> LRA 1, 2,
	ors:	eck all that apply) Water-Stained Le 1, 2, 4A, and 4	eaves (B9) <b>(ex</b> <b>4B)</b>	cept MLR	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI</b> d <b>4B)</b>	No quired) LRA 1, 2,
	ors: of one required; ch	eck all that apply) Water-Stained Le 1, 2, 4A, and 4 Salt Crust (B11)	eaves (B9) <b>(ex</b> <b>4B)</b>	cept MLR	Hydric Soil Pres	ent? Yes X dicators (2 or more rec ained Leaves (B9) (MI d 4B) Patterns (B10)	No quired) LRA 1, 2,
Image: Comparison of the system         Type:         Depth (inches):         Image: Comparison of the system         Image: Comp	ors: a of one required; ch	eck all that apply) Water-Stained Le 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebr	eaves (B9) <b>(ex</b> <b>4B)</b> rates (B13)	cept MLR/	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI d 4B)</b> Patterns (B10) on Water Table (C2)	No quired) LRA 1, 2,
Image: Constructive Layer (if present Type: Construction of the present Type: Construction of the present Const	ors:	eck all that apply) Water-Stained Le <b>1, 2, 4A, and</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	eaves (B9) <b>(ex</b> <b>↓B)</b> rates (B13) ∋ Odor (C1)	cept MLR	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(Mi</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Imag	No <u>quired)</u> LRA 1, 2, gery (C9)
Image: Sector Control Contrecontrol Control Control Control Control Con	ors: of one required; ch	eck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	eaves (B9) <b>(ex</b> <b>\$B)</b> rates (B13) e Odor (C1) oheres along Liv	cept MLR	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Imag hic Position (D2)	No guired) LRA 1, 2, gery (C9)
Image: Sector Control Contrecontrol Control Control Control Control Con	ors: of one required; ch	eck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	eaves (B9) <b>(ex</b> <b>4B)</b> rates (B13) e Odor (C1) oheres along Liv uced Iron (C4)	cept MLR	Hydric Soil Pres	eent? Yes X dicators (2 or more rec ained Leaves (B9) (MI d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imag whic Position (D2) Aquitard (D3)	No quired) LRA 1, 2, gery (C9)
Image: Control of the second structure of the s	ors:	eck all that apply) Water-Stained Le <b>1, 2, 4A, and</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu	eaves (B9) <b>(ex</b> <b>1B)</b> rates (B13) e Odor (C1) oheres along Liv uced Iron (C4) uction in Tilled S	ring Roots (C Soils (C6)	Hydric Soil Pres	eent? Yes X dicators (2 or more rec ained Leaves (B9) (MI d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imag hic Position (D2) Aquitard (D3) tral Test (D5)	No guired) LRA 1, 2, gery (C9)
Image: Constructive Layer (if present Type: Construction of the present Type: Construction of the present Construle of the present Construction of the present Construc	ors: of one required; ch	eck all that apply) Water-Stained Le <b>1, 2, 4A, and</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	eaves (B9) <b>(ex</b> <b>IB)</b> rates (B13) e Odor (C1) oheres along Liv uced Iron (C4) uction in Tilled S sed Plants (D1)	ring Roots (C Soils (C6) (LRR A)	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(Mi</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Imag whic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRR</b>	No <u>auired)</u> LRA 1, 2, gery (C9)
Image: Sector Control Contrecontrol Control Control Control Control Con	ors: of one required; ch	eck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	eaves (B9) <b>(ex</b> <b>1B)</b> Pates (B13) Podor (C1) pheres along Liv uced Iron (C4) uction in Tilled S sed Plants (D1) Remarks)	ring Roots (C Soils (C6) (LRR A)	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Imag hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) ( <b>LRR</b> ave Hummocks (D7)	No guired) LRA 1, 2, gery (C9)
Image: Constructive Layer (if present Type: Constructive Layer (if present Type: Construction (inclusion): Construction: Co	ors: a of one required; ch ) prial Imagery (B7) acave Surface (B8)	eck all that apply) Water-Stained Le <b>1, 2, 4A, and</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	eaves (B9) <b>(ex</b> <b>4B)</b> rates (B13) e Odor (C1) oheres along Liv uced Iron (C4) uction in Tilled S sed Plants (D1) Remarks)	ring Roots (C Soils (C6) (LRR A)	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI</b> d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imag hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) ( <b>LRR</b> ave Hummocks (D7)	No guired) LRA 1, 2, gery (C9)
Image: Sector Control Contrecontrol Control Control Control Control Con	ors: of one required; ch of one required; ch p) erial Imagery (B7) hcave Surface (B8)	eck all that apply) Water-Stained Le <b>1, 2, 4A, and</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	eaves (B9) <b>(ex</b> <b>1B)</b> rates (B13) e Odor (C1) bheres along Liv uced Iron (C4) uction in Tilled S sed Plants (D1) Remarks)	ring Roots (C Soils (C6) (LRR A)	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(Mi</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Imag whic Position (D2) Aquitard (D3) ttral Test (D5) nt Mounds (D6) ( <b>LRR</b> ave Hummocks (D7)	No <u>auired)</u> LRA 1, 2, gery (C9)
Estrictive Layer (if presenting type:         Depth (inches):         Depth (inches):         Eemarks:         HYDROLOGY         Vetland Hydrology Indicate         trimary Indicators (minimum         Surface Water (A1)         X         High Water Table (A2)         X         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6         Inundation Visible on Ae         Sparsely Vegetated Cor         Surface Water Present?	ors: of one required; ch of one required; ch prial Imagery (B7) ncave Surface (B8) Yes	eck all that apply) Water-Stained Le 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	eaves (B9) <b>(ex</b> <b>1B)</b> Fates (B13) Poheres along Liv uced Iron (C4) uction in Tilled S sed Plants (D1) Remarks) Pepth (inches):	ring Roots (C Soils (C6) (LRR A)	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI</b> <b>d 4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Imag whic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) ( <b>LRR</b> ave Hummocks (D7)	No guired) LRA 1, 2, gery (C9)
Estrictive Layer (if presenting type:         Type:         Depth (inches):         Eemarks:         HYDROLOGY         Vetland Hydrology Indicate         trimary Indicators (minimum         Surface Water (A1)         X         High Water Table (A2)         X         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6         Inundation Visible on Ae         Sparsely Vegetated Corr         ield Observations:         Surface Water Present?         Nater Table Present?	ors: of one required; ch orial Imagery (B7) incave Surface (B8) Yes Yes X	eck all that apply) Water-Stained Le <b>1, 2, 4A, and</b> Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in No X D	eaves (B9) <b>(ex</b> <b>4B)</b> rates (B13) e Odor (C1) oheres along Liv uced Iron (C4) uction in Tilled S sed Plants (D1) Remarks) Pepth (inches):	ring Roots (C Soils (C6) (LRR A)	Hydric Soil Pres	dicators (2 or more rec ained Leaves (B9) <b>(MI</b> d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imag hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) ( <b>LRR</b> ave Hummocks (D7)	No quired) LRA 1, 2, gery (C9)
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### WETLAND DE24:183TERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Evah Lane 2-Parcel Partition		City/County:	West Linn/Cla	ackamas Sampling Date: 01/24/20127
Applicant/Owner: O'Brien & Company, LLC				State: OR Sampling Point: 3
Investigator(s): Haley Smith		Section, 7	Fownship, Rang	e: Sec. 02BC, T. 3S, R. 1E
Landform (hillslope, terrace, etc.): Hillslope			Local relief (	concave, convex, none): Convex Slope (%): <3%
Subregion (LRR): <u>A, Northwest Forests and C</u>	Coast	Lat:	Lon	
Soil Map Unit Name: (Unit 19) Cloquat	to Silt Loam			NWI classification:
Are climatic / hydrologic conditions on the site t	ypical for this time	of year?	Ye	s X No (If no, explain in Remarks)
Are Vegetation,Soil	, or Hydrology	significantly	disturbed? A	Are "Normal Circumstances" present? Yes X No
Are Vegetation ,Soil SUMMARY OF FINDINGS – Attach	_, or Hydrology site map shov	naturally prol wing sampling	<sup>i</sup> blematic? (i point locati	If needed, explain any answers in Remarks.) ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes X	No		
Hydric Soil Present?	Yes	No <b>X</b>	Is the Samp	led Area
Wetland Hydrology Present?	Yes	No <u>X</u>	within a We	tland? Yes No <u>X</u>
Precipitation: According to the NWS Portland st inches of snowfall was recieved within the two	tation, trace amou weeks prior.	nts of rainfall was re	eceived on the	day of the site visit and 3.22 inches of rainfall with 8.00
VEGETATION				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2.				
3.				Total Number of Dominant
4.				Species Across All Strata: (B)
	0%	= Total Cover		
Sapling/Shrub Stratum (Plot size:10' r	)			Percent of Dominant Species
1. Rubus armeniacus	20%	Yes	FAC	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2.		·		Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species 0 x 1 = 0
5.		· • • • • • • • • • • • • • • • • • • •		FACW species 75 x 2 = 150
	20%	= Total Cover		FAC species 22 x 3 = 66
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				FACU species 0 x 4 = 0
1. Phalaris arundinacea	75%	Yes	FACW	UPL species 0 x 5 = 0
2. Cirsium arvense	2%	No	FAC	Column Totals: 97 (A) 216 (B)
3.				Prevalence Index = $B/A = 2.23$
4.			·	Hydrophytic Vegetation Indicators:
5.				1 - Rapid Test for Hydrophytic Vegetation
6.		·		X 2 - Dominance Test is >50%
7.				X 3 - Prevalence Index is $\leq 3.0^{1}$
8.				4 - Morphological Adaptations <sup>1</sup> (Provide support
9.		·		data in Remarks or on a separate sheet)
10.				5 - Wetland Non-Vascular Plants <sup>1</sup>
11				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	77%	= Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrolog
Woody Vine Stratum (Plot size:10' r	)			be present.
1				
2				Hydrophytic
0/ De la Oracia dia Usab Stratum 200/	0%	= lotal Cover		
	<u> </u>			Present :
Remarks:				

SOIL							
Profile Description: (Desc	ribe to the depth i	needed to document t	he indicator or	confirm the	absence of ind	icators.)	
Depth	Matrix		Redox Feat	ures			
(inches) Color (me	oist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-16+ 10YR 3	3/2 100					SL	
Type: C=Concentration	on, D=Depletion	, RM=Reduced Ma	atrix CS=Cove	ered or Co	ated Sand G	rains. 2Locatio	on: PL=Pore
ydric Soil Indicators: (Ap	plicable to all LRR	s, unless otherwise n	oted.)		Indicators for	r Problematic Hydrid	: Soils <sup>3</sup> :
Histosol (A1)		Sandy Redox (S5	5)		2 cm Muc	k (A10)	
Histic Epipedon (A2)		Stripped Matrix (S	6)		Red Parer	nt Material (TF2)	
Black Histic (A3)		Loamy Mucky Mir	neral (F1) <b>(exce</b>	ept MLRA	1) Very Shall	low Dark Surface (TF	12)
Hydrogen Sulfide (A4)		Loamy Gleyed Ma	atrix (F2)		Other (Exp	plain in Remarks)	
Depleted Below Dark Su	urface (A11)	Depleted Matrix (	F3)				
Thick Dark Surface (A12	2)	Redox Dark Surfa	ace (F6)		<sup>3</sup> Indicators	of hydrophytic ve	getation and
Sandy Mucky Mineral (S	51)	Depleted Dark Su	ırface (F7)		wetland hyd	rology must be prese	nt,
Sandy Gleyed Matrix (Se	4)	Redox Depressio	ns (F8)		unless distu	rbed or problematic.	
estrictive Layer (if presen	IU).						
estrictive Layer (if presen Type:	it).						
estrictive Layer (if presen Type: Depth (inches): emarks:				н	lydric Soil Prese	ent? Yes	No <u>X</u>
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat	ors:			H	lydric Soil Prese	ent? Yes	No <u>X</u>
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum	ors:	neck all that apply)		н	lydric Soil Prese	ent? Yes	No X
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1)	ors: of one required; ch	neck all that apply) Water-Stained Le	aves (B9) <b>(exc</b>	ept MLRA	lydric Soil Prese - <u>Secondary Inc</u> Water-Sta	ent? Yes dicators (2 or more re nined Leaves (B9) <b>(M</b>	No X quired) LRA 1, 2,
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2)	ors:	neck all that apply) Water-Stained Le 1, 2, 4A, and 4	eaves (B9) <b>(exc</b> <b>B)</b>	ept MLRA	lydric Soil Prese	ent? Yes dicators (2 or more re iined Leaves (B9) <b>(M</b> d 4B)	No X quired) LRA 1, 2,
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	ors:	neck all that apply) Water-Stained Le 1, 2, 4A, and 4 Salt Crust (B11)	aves (B9) <b>(exc</b> B)	ept MLRA		ent? Yes dicators (2 or more re ined Leaves (B9) <b>(M</b> <b>1 4B)</b> Patterns (B10)	No X quired) LRA 1, 2,
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	ors: of one required; ch	neck all that apply) Water-Stained Le 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebra	eaves (B9) <b>(exc B)</b> ates (B13)	ept MLRA		ent? Yes dicators (2 or more re nined Leaves (B9) <b>(M</b> d 4B) Patterns (B10) on Water Table (C2)	No X quired) LRA 1, 2,
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ors: a of one required; ch	heck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide	eaves (B9) <b>(exc B)</b> ates (B13) Odor (C1)	ept MLRA		ent? Yes dicators (2 or more re ined Leaves (B9) <b>(M</b> d 4B) Patterns (B10) on Water Table (C2) i Visible on Aerial Ima	No X quired) LRA 1, 2,
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	ors:	heck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp	eaves (B9) <b>(exc B)</b> ates (B13) Odor (C1) heres along Livin	ept MLRA		ent? Yes dicators (2 or more re ined Leaves (B9) <b>(M</b> d 4B) Patterns (B10) on Water Table (C2) i Visible on Aerial Ima nic Position (D2)	No X quired) IRA 1, 2, agery (C9)
estrictive Layer (if presen Type: Depth (inches): emarks: HYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ors: of one required; ch	neck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp Presence of Redu	eaves (B9) <b>(exc B)</b> ates (B13) Odor (C1) heres along Livir uced Iron (C4)	ept MLRA		ent? Yes dicators (2 or more re nined Leaves (B9) (M 4 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Ima nic Position (D2) quitard (D3)	No X quired) LRA 1, 2,
estrictive Layer (if presen Type: Depth (inches): emarks: PYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ors: of one required; cf	heck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu	aves (B9) <b>(exc</b> <b>B)</b> ates (B13) Odor (C1) heres along Livin uced Iron (C4) action in Tilled Sc	ept MLRA		ent? Yes dicators (2 or more re ined Leaves (B9) <b>(M</b> d 4B) Patterns (B10) on Water Table (C2) i Visible on Aerial Ima nic Position (D2) quitard (D3) ral Test (D5)	No X quired) LRA 1, 2,
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estrictive Layer (if presen Type: Depth (inches): emarks: HYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6 Inundation Visible on Ae	ors: of one required; ch of one required; ch orial Imagery (B7)	eck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in	eaves (B9) <b>(exc B)</b> ates (B13) Odor (C1) heres along Livin uced Iron (C4) action in Tilled So ed Plants (D1) (I Remarks)	ept MLRA		ent? Yes dicators (2 or more re nined Leaves (B9) (M 4 4B) Patterns (B10) on Water Table (C2) o Visible on Aerial Ima nic Position (D2) quitard (D3) ral Test (D5) nt Mounds (D6) (LRF ve Hummocks (D7)	No X quired) LRA 1, 2, agery (C9)
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estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6 Inundation Visible on Ae Sparsely Vegetated Cor ield Observations:	ors: of one required; ch of one required; ch prial Imagery (B7) ncave Surface (B8)	Meck all that apply) Water-Stained Lee 1, 2, 4A, and 4 Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in	eaves (B9) <b>(exc</b> <b>B)</b> ates (B13) Odor (C1) heres along Livit uced Iron (C4) action in Tilled So ed Plants (D1) (I Remarks)	ept MLRA		ent? Yes dicators (2 or more re ined Leaves (B9) (M 4 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Ima nic Position (D2) quitard (D3) ral Test (D5) nt Mounds (D6) (LRF ve Hummocks (D7)	No X quired) ILRA 1, 2, agery (C9)
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estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6 Inundation Visible on Ae Sparsely Vegetated Cor ield Observations: Surface Water Present?	ors: of one required; cf of one required; cf prial Imagery (B7) ncave Surface (B8) Yes Yes	Meck all that apply) Water-Stained Le <b>1, 2, 4A, and 4</b> Salt Crust (B11) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp Presence of Redu Recent Iron Redu Stunted or Stress Other (Explain in No X Do	eaves (B9) <b>(exc</b> <b>B)</b> ates (B13) Odor (C1) heres along Livin uced Iron (C4) uction in Tilled So ed Plants (D1) (I Remarks) epth (inches):epth (inches):	ept MLRA		ent? Yes dicators (2 or more re ined Leaves (B9) (M 4 4B) Patterns (B10) on Water Table (C2) 1 Visible on Aerial Ima hic Position (D2) quitard (D3) ral Test (D5) ht Mounds (D6) (LRF ve Hummocks (D7) Hydrology Present?	No X quired) LRA 1, 2, agery (C9)
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estrictive Layer (if presen Type: Depth (inches): emarks:	ors: of one required; ch orial Imagery (B7) ncave Surface (B8) Yes Yes Yes	No       X       Deck         Mater-Stained Lee       1, 2, 4A, and 4         Salt Crust (B11)       Aquatic Invertebra         Hydrogen Sulfide       Oxidized Rhizosp         Presence of Redu       Recent Iron Redu         Stunted or Stress       Other (Explain in         No       X       Deck         No       X       Deck         No       X       Deck	eaves (B9) <b>(exc</b> <b>B)</b> ates (B13) Odor (C1) heres along Livin uced Iron (C4) action in Tilled So ed Plants (D1) (I Remarks) epth (inches): epth (inches):	ept MLRA ng Roots (C3 bils (C6) LRR A)		ent? Yes dicators (2 or more re ined Leaves (B9) (M 4 4B) Patterns (B10) on Water Table (C2) o Visible on Aerial Ima hic Position (D2) quitard (D3) ral Test (D5) ht Mounds (D6) (LRF ve Hummocks (D7) Hydrology Present? Yes	No X quired) LRA 1, 2, agery (C9) R A)
estrictive Layer (if presen Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology Indicat rimary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6 Inundation Visible on Ae Sparsely Vegetated Cor ield Observations: Surface Water Present? Vater Table Present? Saturation Present? includes capillary fringe)	ors: of one required; cf of one required; cf prial Imagery (B7) ncave Surface (B8) Yes Yes Yes Yes Yes Tream gauge, monitor	neck all that apply)	eaves (B9) <b>(exc</b> <b>B)</b> ates (B13) Odor (C1) heres along Livin uced Iron (C4) iction in Tilled Sc ed Plants (D1) (I Remarks) epth (inches): epth (inches):	ept MLRA ng Roots (C3 bils (C6) LRR A)		ent? Yes dicators (2 or more re ined Leaves (B9) (M 4 4B) Patterns (B10) on Water Table (C2) i Visible on Aerial Ima- nic Position (D2) quitard (D3) ral Test (D5) it Mounds (D6) (LRF ve Hummocks (D7) Hydrology Present? Yes	No X quired) LRA 1, 2, agery (C9) R A) No X

### WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Evah Lane 2-Parcel Partition		City/County:	West Linn/Cla	ackamas Sampling Date: 01/24/20127
Applicant/Owner: O'Brien & Company, LLC				State: OR Sampling Point: 4
Investigator(s): Haley Smith		Section, T	ownship, Rang	e: Sec. 02BC, T. 3S, R. 1E
Landform (hillslope, terrace, etc.): Toe of Hillslo	ре		Local relief (	concave, convex, none): Concave Slope (%): <5%
Subregion (LRR): A, Northwest Forests and Coa	ast	Lat:	Lon	g: Datum:
Soil Map Unit Name: (Unit 19) Cloquato	Silt Loam			NWI classification:
Are climatic / hydrologic conditions on the site typ	ical for this time	of year?	Ye	s X No (If no, explain in Remarks)
Are Vegetation,Soil	, or Hydrology	significantly of	disturbed? A	Are "Normal Circumstances" present? Yes X No
Are Vegetation ,Soil ,Soil ,SUMMARY OF FINDINGS – Attach si	, or Hydrology <b>te map shov</b>	naturally prol	blematic? ( point locati	If needed, explain any answers in Remarks.) ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes X	No		
Hydric Soil Present?	res X	No	Is the Samp	led Area
Wetland Hydrology Present?	res X	No	within a We	tland? Yes X No
Precipitation: According to the NWS Portland stat inches of snowfall was recieved within the two we	ion, trace amou eks prior.	nts of rainfall was re	eceived on the	day of the site visit and 3.22 inches of rainfall with 8.00
Remarks: Plot located at the toe of slope and app	roximately 2 fee	t from 1-foot-wide r	manmade ditch	
VEGETATION				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL FACW or FAC 2 (A)
2.				
3.				Total Number of Dominant
4.				Species Across All Strata: 2 (B)
	0%	= Total Cover		
Sapling/Shrub Stratum (Plot size:10' r	.)			Percent of Dominant Species
1. Rubus armeniacus	15%	Yes	FAC	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2.				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species x 1 =0
5				FACW species <u>85</u> x 2 = <u>170</u>
	15%	= Total Cover		FAC species <u>15</u> x 3 = <u>45</u>
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				FACU species 0 x 4 = 0
1. Phalaris arundinacea	85%	Yes	FACW	UPL species $0 \times 5 = 0$
2				Column Totals: <u>100</u> (A) <u>215</u> (B)
3				Prevalence Index = $B/A = 2.15$
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				X 2 - Dominance Test is >50%
7				X_3 - Prevalence Index is ≤3.0
8				4 - Morphological Adaptations (Provide support
9				data in Remarks or on a separate sheet)
10				5 - Wetland Non-Vascular Plants
11				Problematic Hydrophytic Vegetation' (Explain)
Woody Vine Stratum (Plot size:10' r	) )	= Total Cover		be present.
1				Ibideenbidie
<sup>2.</sup>	00/			Hydrophytic Vegetation Ves V No
% Bare Ground in Herb Stratum 15%	0%	= TOTAL COVEL		Present?
Remarks:				

SOIL				and a facility of a second		ale a sur a sa film d		
Profile Description:	(Describe to th	ne depth nee	eded to documen	it the indicator of	or confirm the	absence of inc	licators.)	
Depth	Matrix			Redox Fe	atures			
(inches) Col	or (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6 10	DYR 3/1	95	10YR 4/4	5	С	М	SiCL	
6-14+ 10	)YR 4/1	95	10YR 4/4	5	С	PL	CL	
Type: C=Concen	tration, D=D	epletion, F	RM=Reduced N	Matrix CS=Co	vered or Coa	ated Sand G	rains. 2Location	: PL=Pore
ydric Soil Indicators	: (Applicable t	o all LRRs,	unless otherwise	e noted.)		Indicators fo	r Problematic Hydric S	Soils <sup>3</sup> :
Histosol (A1)		_	Sandy Redox (	S5)		2 cm Muc	k (A10)	
Histic Epipedon (A	2)	_	Stripped Matrix	: (S6)		Red Pare	nt Material (TF2)	
Black Histic (A3)		_	Loamy Mucky	Mineral (F1) <b>(ex</b>	cept MLRA	1) Very Shal	low Dark Surface (TF12	2)
Hydrogen Sulfide (	A4)	_	Loamy Gleyed	Matrix (F2)		Other (Ex	plain in Remarks)	
X Depleted Below Da	ark Surface (A1	1)	X Depleted Matri	x (F3)				
Thick Dark Surface	e (A12)		X_Redox Dark Su	ırface (F6)		<sup>3</sup> Indicators	of hydrophytic vege	etation and
Sandy Mucky Mine	eral (S1)		Depleted Dark	Surface (F7)		wetland hyc	rology must be present,	,
Sandy Gleyed Matrix (S4)			Reday Depres	sions (F8)		unless distu	unless disturbed or problematic.	
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks:	resent):				н	ydric Soil Pres	ent? Yes <u>X</u>	No
Sandy Gleyed Mat Restrictive Layer (if p Type: Depth (inches): Remarks:	resent):				н	ydric Soil Pres	ent? Yes <u>X</u>	No
Sandy Gleyed Mat Restrictive Layer (if p Type: Depth (inches): Remarks:	resent):				н	ydric Soil Pres	ent? Yes <u>X</u>	No
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): temarks: TYDROLOGY Vetland Hydrology In trimary Indicators (min	dicators:		k all that apply)		H	ydric Soil Pres	ent? Yes X	No
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: HYDROLOGY Vetland Hydrology In rimary Indicators (min Surface Water (A1	dicators:	equired; chec	k all that apply) Water-Stained	Leaves (B9) <b>(ex</b>	ccept MLRA	ydric Soil Pres	ent? Yes X dicators (2 or more requ	No <u>uired)</u> RA 1, 2,
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table	dicators: imum of one re (A2)	equired; chec	<u>k all that apply)</u> Water-Stained 1, 2, 4A, and	Leaves (B9) <b>(ex</b>	cept MLRA	ydric Soil Pres	ent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b>	No <u>uired)</u> RA 1, 2,
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3)	dicators: imum of one re ) (A2)	equired; chec	<u>k all that apply)</u> Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11	Leaves (B9) <b>(ex</b> 1 <b>4B)</b>	cept MLRA	ydric Soil Pres . <u>Secondary In</u> Water-Sta 4A, and Drainage	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10)	No iired) RA 1, 2,
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: HYDROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1)	dicators: imum of one re ) (A2)	equired; chec	<u>k all that apply)</u> Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte	Leaves (B9) <b>(ex</b> <b>1 4B)</b>	cept MLRA	ydric Soil Pres	ent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b> d <b>4B)</b> Patterns (B10) on Water Table (C2)	No iired) RA 1, 2,
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits	dicators: imum of one re ) (A2)	equired; chec	<u>k all that apply)</u> Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi	Leaves (B9) <b>(ex</b> <b>1 4B)</b> (brates (B13) de Odor (C1)	cept MLRA	ydric Soil Pres	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Image	No <u>tired)</u> RA 1, 2, ery (C9)
Sandy Gleyed Mat Itestrictive Layer (if p Type: Depth (inches): Itemarks: IYDROLOGY Vetland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3)	dicators: imum of one re ) (A2) \$ (B2)	equired; chec	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo	Leaves (B9) <b>(ex</b> <b>1 4B)</b> brates (B13) de Odor (C1) spheres along Liv	cept MLRA	ydric Soil Pres <u>Secondary Im</u> Water-Sta 4A, and Drainage Dry-Seas Saturation ) Geomorp	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2)	No <u>iired)</u> RA 1, 2, ery (C9)
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: TYDROLOGY Vetland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust	int (34)         resent):         dicators:         imum of one re         )         (A2)         \$ (B2)         (B4)	equired; chec	k all that apply) Water-Stained 1, 2, 4A, and Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re	Leaves (B9) <b>(ex</b> <b>1 4B)</b> brates (B13) de Odor (C1) spheres along Liv educed Iron (C4)	ccept MLRA	ydric Soil Pres Secondary Ind Water-Sta 4A, and Drainage Dry-Seas Saturation )Geomorp Shallow A	ent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b> d <b>4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2) aquitard (D3)	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9)
Sandy Gleyed Mat Sestrictive Layer (if p Type: Depth (inches): Semarks: TYDROLOGY Vetland Hydrology In Trimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	dicators: imum of one re ) (A2) (B2) (B4)	equired; chec	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re	Leaves (B9) <b>(ex</b> <b>1 4B)</b> )) brates (B13) de Odor (C1) ispheres along Liv educed Iron (C4) eduction in Tilled S	rcept MLRA	ydric Soil Pres <u>Secondary In</u> Water-Sta <b>4A, an</b> Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu	ent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b> d <b>4B)</b> Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2) equitard (D3) tral Test (D5)	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9)
Sandy Gleyed Mat Type: Depth (inches): Type: Depth (inches): Type: Type: Depth (inches): Type: Type: Type: Depth (inches): Type: Type: Depth (inches): Type: Type: Depth (inches): Type: T	dicators: imum of one re ) (A2) (B4) s (B6)	equired; chec	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stree	Leaves (B9) <b>(ex</b> <b>J 4B)</b> brates (B13) de Odor (C1) spheres along Live educed Iron (C4) eduction in Tilled Sessed Plants (D1)	ving Roots (C3 Soils (C6) (LRR A)	ydric Soil Pres Secondary Ind Water-Sta 4A, and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2) equitard (D3) tral Test (D5) nt Mounds (D6) (LRR A	No <u>iired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )
Sandy Gleyed Mat Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Type: Depth (inches): Semarks: Type: Depth (inches): Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Surface Soil Crack Inundation Visible	dicators: imum of one re ) (A2) (B2) (B4) s (B6) on Aerial Image	equired; chec	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain	Leaves (B9) <b>(ex</b> <b>d 4B)</b> brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) eduction in Tilled S essed Plants (D1) in Remarks)	ccept MLRA	ydric Soil Pres Secondary Ind Water-Sta 4A, and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised Au Frost-Hea	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2) aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR A ave Hummocks (D7)	No <u>tired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )
Sandy Gleyed Mat estrictive Layer (if p Type: Depth (inches): emarks: IYDROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Surface Soil Crack Inundation Visible Sparsely Vegetate	dicators: imum of one re ) (A2) (B4) s (B6) on Aerial Image d Concave Sur	equired; chec 	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain	Leaves (B9) <b>(ex</b> <b>J 4B)</b> )) brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) eduction in Tilled sessed Plants (D1) in Remarks)	ving Roots (C3 Soils (C6) (LRR A)	ydric Soil Pres <u>Secondary In</u> Water-Sta <b>4A, an</b> Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An Frost-Hea	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) in Visible on Aerial Image hic Position (D2) equitard (D3) tral Test (D5) int Mounds (D6) (LRR A ave Hummocks (D7)	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )
Sandy Gleyed Mat Restrictive Layer (if p Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrology In Primary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Surface Soil Crack Inundation Visible Sparsely Vegetate Field Observations:	dicators: imum of one re ) (A2) (B4) s (B6) on Aerial Image d Concave Sur	equired; chec	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain	Leaves (B9) <b>(ex</b> <b>J 4B)</b> brates (B13) de Odor (C1) spheres along Liveduced Iron (C4) educed Iron (C4) eduction in Tilled S essed Plants (D1) in Remarks)	ving Roots (C3 Soils (C6) (LRR A)	ydric Soil Pres Secondary Ind Water-Sta 4A, and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An Frost-Hea	ent? Yes X dicators (2 or more requiration of the second s	No <u>iired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )
Sandy Gleyed Mat Sestrictive Layer (if p Type: Depth (inches): Semarks: TYDROLOGY Vetland Hydrology In Trimary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Surface Soil Crack Inundation Visible Sparsely Vegetate Sield Observations: Surface Water Presen	resent): dicators: imum of one re ) (A2) (B2) (B4) (B4) s (B6) on Aerial Image d Concave Sur t? Yes	equired; chec 	k all that apply) Water-Stained 1, 2, 4A, and Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain	Leaves (B9) <b>(ex</b> <b>1 4B)</b> brates (B13) de Odor (C1) spheres along Liv educed Iron (C4) eduction in Tilled S essed Plants (D1) in Remarks) Depth (inches):	ving Roots (C3 Soils (C6) (LRR A)	ydric Soil Pres Secondary In Water-Sta 4A, an Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised Au Frost-Hea	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2) aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR A ave Hummocks (D7)	No <u>tired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )
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Sandy Gleyed Mat Restrictive Layer (if p Type: Depth (inches): Remarks: TYDROLOGY Vetland Hydrology In Primary Indicators (min Surface Water (A1 X High Water Table X Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust Iron Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Surface Soil Crack Inundation Visible Sparsely Vegetate ield Observations: Surface Water Present Nater Table Present? Saturation Present?	dicators: imum of one re ) (A2) (B2) (B4) s (B6) on Aerial Image d Concave Sur Yes Yes Yes Yes	ery (B7) face (B8)	k all that apply) Water-Stained <b>1, 2, 4A, and</b> Salt Crust (B11 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain	Leaves (B9) <b>(ex</b> <b>j 4B)</b> brates (B13) de Odor (C1) spheres along Live educed Iron (C4) eduction in Tilled S essed Plants (D1) in Remarks) Depth (inches): Depth (inches):	ving Roots (C3 Soils (C6) (LRR A)	ydric Soil Pres Secondary Ind Water-Sta 4A, and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised Au Frost-Hea	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Image hic Position (D2) aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR A ave Hummocks (D7) Hydrology Present? Yes X	No

### WETLAND DE24:183TERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Evah Lane 2-Parcel Partition		City/County:	West Linn/Cl	ackamas Sampling Date: 01/24/20127
Applicant/Owner: O'Brien & Company, LLC				State: OR Sampling Point: 5
Investigator(s): Haley Smith		Section, T	Township, Rang	je: <u>Sec. 02BC, T. 3S, R. 1E</u>
Landform (hillslope, terrace, etc.): Hillslope			Local relief	(concave, convex, none): Concave Slope (%): <3%
Subregion (LRR): <u>A, Northwest Forests and Coast</u>		Lat:	Lon	ng: Datum:
Soil Map Unit Name: (Unit 19) Cloquato Sil	t Loam			NWI classification:
Are climatic / hydrologic conditions on the site typica	I for this time	of year?	Ye	X     No     (If no, explain in Remarks)
Are Vegetation, Soil, o	r Hydrology	significantiy (	disturbed? A	Are "Normal Circumstances" present? Yes X No
SUMMARY OF FINDINGS – Attach site	map show	wing sampling	point locati	in needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes	s <b>X</b>	 No		
Hydric Soil Present? Yes	3 X	No	Is the Samp	vled Area
Wetland Hydrology Present? Yes	ءَ <u>X</u>	No	within a We	tland? Yes X No
Precipitation: According to the NWS Portland station inches of snowfall was recieved within the two week	, trace amou s prior.	nts of rainfall was re	eceived on the	day of the site visit and 3.22 inches of rainfall with 8.00
Remarks: Plot is located east side of pond, and app	oximately 1-t	oot lower in landfor	m than upland	Plot 6. The manmade ditch is approximately 4 feet away.
VEGETATION				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Alnus rubra	10%	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2.				
3.				Total Number of Dominant
4.				Species Across All Strata:5(B)
	0%	= Total Cover		
Sapling/Shrub Stratum (Plot size:10' r)	_			Percent of Dominant Species
1. <u>Rubus armeniacus</u>	10%	Yes	FAC	That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2.				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4				OBL species 20 x 1 = 20
5				FACW species <u>45</u> x 2 = <u>90</u>
$(\mathbf{D}) \rightarrow \mathbf{D}$	10%	= Total Cover		FAC species $45 \times 3 = 135$
Herb Stratum (Plot Size: <u>5 i</u> )				FACU species $0 \times 4 = 0$
1. Phalaris arundinacea	45%	Yes	FACW	UPL species $0 \times 5 = 0$
2. Veronica americana	20%	Yes	OBL	Column I otals: <u>110</u> (A) <u>245</u> (B)
3. Alopecurus pratensis	20%	Yes	FAC	Prevalence index = $B/A = 2.23$
4. Juncus species	5%	No	FAC	Hydrophytic vegetation indicators:
5.				1 - Kapid Test for Hydrophytic Vegetation
р				X 2 - Dominance Test is >50%
/				$\frac{1}{2}$ 3 - Prevalence Index is $\leq 3.0$
ö.				4 - Morphological Adaptations (FIUVIUE Support data in Remarks or on a separate sheet)
a.				
				5 - Wetland Non-vascular Plants
10				
11.	90%	- Total Cover		L'Indicators of hydric soil and wetland hydrolog
10 11 Woody Vine Stratum (Plot size:10' r)	90%	= Total Cover		'Indicators of hydric soil and wetland hydrolog
10.	90%	= Total Cover		be present.
10.         11. <u>Woody Vine Stratum</u> (Plot size:10' r)         1.         2.	90%	= Total Cover		Hydrophytic
10.         11. <u>Woody Vine Stratum</u> (Plot size:10' r)         1.         2.	90%	= Total Cover		'Indicators of hydric soil and wetland hydrologies         be present.         Hydrophytic         Vegetation       Yes

SOIL							Sampling Point:	5	
Profile Description	on: (Describe	to the depth	needed to docur	ment the indicator	or confirm the	e absence of in	dicators.)		
Depth	M	atrix		Redox F	eatures				
(inches)	Color (moist)	%	Color (mois	st) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-10	10YR 3/1	98	10YR 4/4	4 2	С	М	SiCL		
10-18+	10YR 4/1	90	10YR 4/-	4 10	С	М	SiCL		
Type: C=Con	centration, D	D=Depletion	n, RM=Reduce	ed Matrix CS=C	overed or Co	pated Sand G	ains. 2Locatior	n: PL=Pore Li	
Hydric Soil Indica	ators: (Applica	ble to all LRI	Rs, unless otherv	wise noted.)		Indicators for	or Problematic Hydric	Soils <sup>3</sup> :	
Histosol (A1)			Sandy Red	ox (S5)		2 cm Mu	ck (A10)		
Histic Epipedo	on (A2)		Stripped Ma	atrix (S6)		Red Pare	ent Material (TF2)		
Black Histic (A	A3)		Loamy Muc	cky Mineral (F1) <b>(e</b> x	xcept MLRA	<b>1)</b> Very Sha	llow Dark Surface (TF1	2)	
Hydrogen Sul	fide (A4)		Loamy Gle	yed Matrix (F2)		Other (Ex	kplain in Remarks)		
X Depleted Belo	ow Dark Surfac	e (A11)	X Depleted N	latrix (F3)					
Thick Dark Su	urface (A12)		X Redox Darl	k Surface (F6)		<sup>3</sup> Indicators	of hydrophytic veg	etation and	
Sandy Mucky	Mineral (S1)		Depleted D	ark Surface (F7)		wetland hyd	drology must be present	.,	
Sandy Gleyed	d Matrix (S4)		Redox Dep	ressions (F8)		unless dist	unless disturbed or problematic.		
	(if procent).								
Restrictive Layer	(ii present).								
Restrictive Layer Type:	(ii present).								
Restrictive Layer Type: Depth (inches): Remarks:	(ii present).				ł	Hydric Soil Pres	sent? Yes X	No	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog	gy Indicators:			-	1	Hydric Soil Pres	sent? Yes X	No	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators	gy Indicators:	ne required; c	theck all that apply		•	Hydric Soil Pres	sent? Yes X	No	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate	gy Indicators: (minimum of o er (A1)	ne required; c	theck all that apply	- /) ned Leaves (B9) <b>(e</b>	except MLR/	Hydric Soil Pres	ent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b>	No 	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta	gy Indicators: (A1) able (A2)	ne required; c	theck all that apply Water-Stain	- /) ned Leaves (B9) <b>(e</b> and 4B)	except MLR/	Hydric Soil Pres	sent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B)	No 	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (AC	gy Indicators: (minimum of o er (A1) able (A2) 3)	ne required; c	theck all that apply Water-Stair 1, 2, 4A, Salt Crust (	- /) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11)	except MLR/	Hydric Soil Pres	eent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML d 4B)</b> Patterns (B10)	No 	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks	gy Indicators: (minimum of o er (A1) able (A2) 3) (B1)	ne required; c	theck all that apply Water-Stair 1, 2, 4A, Salt Crust ( Aquatic Inv	- /) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) (ertebrates (B13)	except MLR/	Hydric Soil Pres	eent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML d 4B)</b> Patterns (B10) son Water Table (C2)	No uired) RA 1, 2,	
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Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C	gy Indicators: (minimum of o er (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4)	ne required; c	theck all that apply Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c	/) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I	except MLR/	Hydric Soil Pres	ent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML d 4B)</b> Patterns (B10) son Water Table (C2) n Visible on Aerial Imag ohic Position (D2) Aquitard (D3)	No <u>uired)</u> RA 1, 2, ery (C9)	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits	gy Indicators: (minimum of o (B1) posits (B2) (B3) Crust (B4) (B5)	ne required; c	Check all that apply Water-Stain 1, 2, 4A, Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror	/) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I hizospheres along I of Reduced Iron (C4 n Reduction in Tilled	Except MLR	A Secondary In A Water-St 4A, an Drainage Dry-Seas Saturatio 3) Geomorp Shallow / FAC-Neu	eent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag ohic Position (D2) Aquitard (D3) utral Test (D5)	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9)	
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Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	gy Indicators: (In present). gy Indicators: (In inimum of o or (A1) able (A2) 3) (B1) cossits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial I	ne required; c	theck all that apply Water-Stain <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Exp	/) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I of Reduced Iron (C4 n Reduction in Tilleo Stressed Plants (D lain in Remarks)	Except MLR/	A Secondary In A Water-St 4A, an Drainage Dry-Seas Saturatio 3) Geomorp Shallow / FAC-Neu Raised A Frost-He	eent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b> d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag ohic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR ave Hummocks (D7)	No Lired) RA 1, 2, ery (C9) A)	
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Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Veg	gy Indicators: (In present). gy Indicators: (Ininimum of o or (A1) able (A2) 3) (B1) coosits (B2) (B3) Crust (B4) (B5) Crust (B4) (B5) Cracks (B6) sible on Aerial I etated Concave ns:	ne required; c magery (B7)	Check all that apply Water-Stain <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Expl	y) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I hizospheres along I of Reduced Iron (C4 n Reduction in Tilleo Stressed Plants (D lain in Remarks)	Eiving Roots (Call) d Soils (C6) 1) ( <b>LRR A</b> )	Aydric Soil Pres	eent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag bhic Position (D2) Aquitard (D3) atral Test (D5) int Mounds (D6) (LRR ave Hummocks (D7)	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation	gy Indicators: (minimum of o (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial I etated Concave ns: esent? Ye	ne required; c magery (B7) Surface (B8)	<u>heck all that apply</u> Water-Stair <b>1, 2, 4A,</b> Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence co Recent Iror Stunted or Other (Expl No X	/) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I of Reduced Iron (C4 n Reduction in Tilleo Stressed Plants (D lain in Remarks)	Except MLR	A Secondary In A Water-St 4A, an Drainage Dry-Seas Saturatio 3) Geomorp Shallow / FAC-Neu Raised A Frost-He	eent? Yes X dicators (2 or more requ ained Leaves (B9) <b>(ML</b> d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag ohic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LRR ave Hummocks (D7)	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Pri-	gy Indicators: (minimum of o (minimum of o (mini	magery (B7) Surface (B8) es X	Check all that apply Water-Stain <b>1, 2, 4A</b> , Salt Crust ( Aquatic Inv Hydrogen S Oxidized R Presence c Recent Iror Stunted or Other (Expl No X	// ned Leaves (B9) (e and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I of Reduced Iron (C4 n Reduction in Tilled Stressed Plants (D lain in Remarks) Depth (inches) Depth (inches)	Eiving Roots (Ca a) d Soils (C6) 1) ( <b>LRR A</b> ) : :	A Secondary In A Water-St 4A, an Drainage Dry-Seas Saturatio 3) Geomorp Shallow / FAC-Neu Raised A Frost-He Wetland	ent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag bhic Position (D2) Aquitard (D3) ttral Test (D5) int Mounds (D6) (LRR ave Hummocks (D7) Hydrology Present?	No <u>uired)</u> <b>RA 1, 2,</b> ery (C9) <b>A</b> )	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vegr Field Observation Surface Water Pri Water Table Pres Saturation Preser (includes capillary	gy Indicators: gy Indicators: (minimum of o or (A1) able (A2) 3) (B1) bosits (B2) (B3) Crust (B4) (B5) Cracks (B6) sible on Aerial I etated Concave ns: esent? Yi sent? Yi of the sent? Yi finge)	magery (B7) Surface (B8) Surface (B8) Surface X es X	Sheck all that apply         Water-Stain         1, 2, 4A,         Salt Crust (         Aquatic Inv         Hydrogen S         Oxidized R         Presence c         Recent Iror         Stunted or         Other (Expl)         No         No         No         No	y) ned Leaves (B9) (e and 4B) (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I of Reduced Iron (C4 n Reduction in Tilled Stressed Plants (D lain in Remarks) Depth (inches) Depth (inches) Depth (inches)	Eiving Roots (C: ) d Soils (C6) 1) (LRR A) : : : : : : : : : : : : :	Aydric Soil Pres	eent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag bhic Position (D2) Aquitard (D3) ttral Test (D5) int Mounds (D6) (LRR ave Hummocks (D7) Hydrology Present? Yes X	No	
Restrictive Layer Type: Depth (inches): Remarks: Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Water X High Water Ta X Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Pres Saturation Preser (includes capillary Describe Recorde	gy Indicators: gy Indicators: (minimum of o or (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) Crust (B4) (B5) Cracks (B6) sible on Aerial I etated Concave ns: esent? Ye sent? Ye ant? Ye of the concave the c	magery (B7) Surface (B8) es X es X a gauge, moni	Sheck all that apply         Water-Stain         1, 2, 4A,         Salt Crust (         Aquatic Inv         Hydrogen S         Oxidized R         Presence c         Recent Iror         Stunted or         Other (Expl)         No         No         No         No         No         No         No         No         Stunted or         Other (Expl)	/) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I of Reduced Iron (C4 n Reduction in Tilleo Stressed Plants (D lain in Remarks) Depth (inches) Depth (inches) Depth (inches) photos, previous ins	Except MLR/	Aydric Soil Pres	eent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag obic Position (D2) Aquitard (D3) atral Test (D5) nt Mounds (D6) (LRR ave Hummocks (D7) Hydrology Present? Yes X	No	
Restrictive Layer Type: Depth (inches): Remarks: HYDROLOGY Wetland Hydrolog Primary Indicators Surface Wate X High Water Ta X Saturation (A3 Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Pres Saturation Preser (includes capillary Describe Recorded	gy Indicators: (In present). gy Indicators: (minimum of o or (A1) able (A2) 3) (B1) boosits (B2) (B3) Crust (B4) (B5) Crust (B4) (B5) (B6) (B7) (B	magery (B7) Surface (B8) ss ss agauge, moni	check all that apply         Water-Stain         1, 2, 4A,         Salt Crust (         Aquatic Inv         Hydrogen S         Oxidized R         Presence co         Recent Iror         Stunted or         Other (Expl)         No         No         No         No         No         No         No	/) ned Leaves (B9) <b>(e</b> <b>and 4B)</b> (B11) rertebrates (B13) Sulfide Odor (C1) hizospheres along I of Reduced Iron (C4 n Reduction in Tilleo Stressed Plants (D lain in Remarks) Depth (inches) Depth (inches) Depth (inches) photos, previous inservice and a service and a se	Except MLR/	A Secondary In A Water-St 4A, an Drainage Dry-Seas Saturatio 3) Geomorp Shallow / FAC-Neu Raised A Frost-He Wetland ailable:	eent? Yes X dicators (2 or more requ ained Leaves (B9) (ML d 4B) Patterns (B10) son Water Table (C2) n Visible on Aerial Imag obic Position (D2) Aquitard (D3) atral Test (D5) int Mounds (D6) (LRR ave Hummocks (D7) Hydrology Present? Yes X	No	

### WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region

Project/Site: Evah Lane 2-Parcel Partition		City/County:	West Linn/Cla	ackamas Sampling Date: 01/24/20127
Applicant/Owner: O'Brien & Company, LLC				State: OR Sampling Point: 6
Investigator(s): Haley Smith		Section, T	ownship, Rang	e: Sec. 02BC, T. 3S, R. 1E
Landform (hillslope, terrace, etc.): Hillslope			Local relief (	concave, convex, none): SI. Convex Slope (%): <3%
Subregion (LRR): A, Northwest Forests and Coa	ist	Lat:	Lon	g:Datum:
Soil Map Unit Name: (Unit 19) Cloquato	Silt Loam		_	NWI classification:
Are climatic / hydrologic conditions on the site type	ical for this time	of year?	Ye	s X No (If no, explain in Remarks)
Are Vegetation,Soil	, or Hydrology	significantly of	disturbed? A	Are "Normal Circumstances" present? Yes X No
Are Vegetation ,Soil _,Soil _,Soi	, or Hydrology <b>te map shov</b>	naturally prol wing sampling	blematic? ( point locati	If needed, explain any answers in Remarks.)
Hydrophytic Vegetation Present?	res X	No		
Hydric Soil Present?	/es	No X	Is the Samp	led Area
Wetland Hydrology Present?	/es	No X	within a We	tland? Yes NoX
Precipitation: According to the NWS Portland stati inches of snowfall was recieved within the two we	ion, trace amou eks prior. t from pond	nts of rainfall was re	eceived on the	day of the site visit and 3.22 inches of rainfall with 8.00
Remarks. Flot localed east, approximately to lee	nom pona.			
VEGETATION				
	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
<ol> <li><u>Alnus rubra</u></li> <li>2.</li> </ol>	10%	Yes	FAC	That Are OBL, FACW, or FAC: (A)
3.				Total Number of Dominant
4.				Species Across All Strata: 4 (B)
	10%	- Total Cover		
Sapling/Shrub Stratum (Plot size: 10' r	)			Percent of Dominant Species
1.	,			That Are OBL EACW or EAC: $100\%$ (A/B)
2.				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species 0 x 1 = 0
5.				EACW species $0 \times 2 = 0$
·	0%	= Total Cover		FAC species $95 \times 3 = 285$
Herb Stratum (Plot size: <u>5'</u> r)				FACU species $0 \times 4 = 0$
1. Schedonorus arundinaceus	25%	Yes	FAC	UPL species $0 \times 5 = 0$
2. Alopecurus pratensis	25%	Yes	FAC	Column Totals: 95 (A) 285 (B)
3. Agrostis capillaris	25%	Yes	FAC	Prevalence Index = $B/A = 3.00$
4. Cardamine oligosperma	10%	No	FAC	Hydrophytic Vegetation Indicators:
5.	1070		1710	1 - Rapid Test for Hydrophytic Vegetation
6.				X 2 - Dominance Test is >50%
7.				$X_{1}$ 3 - Prevalence Index is <3.0 <sup>1</sup>
8.		,		4 - Morphological Adaptations <sup>1</sup> (Provide support
9.		·		data in Remarks or on a separate sheet)
10.		,		5 - Wetland Non-Vascular Plants <sup>1</sup>
11.		·		Brohlomatic Hydrophytic Vegetation <sup>1</sup> (Explain)
···· <u> </u>	85%	- Total Cover		<sup>1</sup> Indicators of bydric soil and wetland bydrolog
Woody Vine Stratum (Plot size: 10' r	)			be present.
1.	,			
2.				Hydrophytic
	0%	= Total Cover		Vegetation Yes X No
% Bare Ground in Herb Stratum 15%				Present?
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)               Redox Features.               Red	SOIL							Sampling Point:	6
Depth         Matrix         Redox Features           (inches)         Color (moist)         %         Type <sup>1</sup> Loc <sup>2</sup> Texture         Ref           1-7         10VR 46         20	Profile Description	n: (Describe to	the depth nee	eded to docun	nent the indicator	or confirm th	e absence of indi	cators.)	
(inches)         Color (moist)         %         Type1         Loc <sup>2</sup> Texture         Ref           1-7         10/R 43         75         10/R 43         5         C         M         SL	Depth	Matr	x		Redox F	eatures			
1-7         10/TR 3/3         75         10/TR 4/3         5         C         M         SiL           1-7         10/TR 4/6         20	(inches) (	Color (moist)	%	Color (mois	t) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
1-7       10/YR 4/6       20       7.5/YR 3/3       1       C       M       SL         7.14+       10/YR 3/1       99       7.5/YR 3/3       1       C       M       SL         90       7.5/YR 3/3       1       C       M       SL       SL         90       7.5/YR 3/3       1       C       M       SL       SL         91       90       7.5/YR 3/3       1       C       M       SL         91       90       7.5/YR 3/3       1       C       M       SL         91       90       7.5/YR 3/3       1       C       M       SL         91       91       7.5/YR 3/3       1       C       M       SL         91       91       7.5/YR 3/3       1       C       M       SL	1-7	10YR 3/3	75	10YR 4/3	<u> </u>	С	М	SiL	
7:14+       10YR 3/1       99       7.5YR 3/3       1       C       M       SiL         "Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2Location: PL=F         Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis."         Histosol (A1)       Sandy Rodox (S5)       2 cm Muck (A10)         Histosol (A2)       Disriped Matrix (S6)       Red Parent Material (TF2)         Black Histic (A3)       Loamy Mody Matrix (F3)       Other (Explain in Remarks)         Depleted Betw Dark Surface (A11)       Depleted Matrix (F3)       "Indicators of hydrophytic vegetation wetland hydrology must be present, unless disturbed or problematic.         Sandy Micky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):       Type:       Depleted Dark Surface (A12)       Redox Dark Surface (F7)         Water Stained Layers (if present):       Type:       Mydric Soli Present? Yes       No 2         Sandy Gleyd Matrix (A3)       Saturation Visition one required):       Mydric Soli Present? Yes       No 2         Surface Water (A3)       Saturation Visition on one required):       Mydric Soli Present? Yes       No 2         Surface Water (A3)       Saturation Visible on Aerial Imagery (F7)	1-7	10YR 4/6	20					SL	
"Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       ZLocation: PL=F         Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis <sup>3</sup> :         HistoEppedon (A2)       Stripped Matrix (S5)       2 cm Muck (A10)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Dapieted Below Dark Surface (A11)       Depleted Matrix (F2)       Other (Explain in Remarks)         Sandy Micky Mineral (F3)       Redox Dark Surface (F7)       wetland hydrology must be present, sandy flexions (F8)         Sandy Gleyed Matrix (F3)       Depleted Dark Surface (F7)       wetland hydrology must be present, sandy flexions (F8)         Wetland Hydrology Indicators:       Presenter (F7)       wetland hydrology must be present, sandy flexions (F8)         Mydric Soli Present?       Yes       No?         Remarks:       Hydric Soli Present? Yes       No?         Hydric Soli Present?       Yes       No?         Surface Water (A1)	7-14+	10YR 3/1	99	7.5YR 3/3	3 1	С	М	SiL	
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2Location: PL=F         Hydric Soil Indicators: (Applicable to all LRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> .         Histic Epipedon (A2)       Stipped Matrix (S6)       2 cm Muk (A10)         Histic CA3       Loamy Muckly Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Depleted Matrix (F3)       Depleted Matrix (F3)       Other (Explain in Remarks)         Depleted Matrix (F3)       Red Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic Vegetation         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Glewed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (If present):       Type:       No         Type:       Depleted Matrix (S4)       Redox Depressions (F8)       Water Stained Leaves (B9) (MLRA 1, 2         Mydrology Indicators:       Hydric Soil Present? Yes									
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2.Location: PL=F         Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histoso((A)       Sandy Redox (SS)       2 cm Mack (AI)         Biack Histic (A3)       Loamy Gleved Matrix (S6)       Red Parent Material (TF2)         Depleted Balow Dark Surface (A1)       Depleted Matrix (F3)       Other (Explain in Remarks)         Depleted Balow Dark Surface (A1)       Depleted Matrix (F3)       Other (Explain in Remarks)         Depleted Balow Dark Surface (A1)       Depleted Matrix (F3)       Other (Explain in Remarks)         Sandy McKy Mineral (S1)       Depleted Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation         Sandy McKy Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present.         Sandy McKy Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present.         Sandy Roky Mineral (S1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2         Mydric S0 Mater Table (A2)       1, 2, 4, A, and 4B)       Saturation (A3)       Sat Crack (B1)       A, and 4B         Surface Water (A1)       Mater-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2       4, and 4B         Saturation (A3) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2Location: PL=F         Hydrb Soll Indicators: (Applicable to all LRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis <sup>3</sup> :         Histic Epideon (A2)       Stinped Matrix (S6)       _2 cm Muck (A10)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Bark Surface (A11)       Depleted Dark Surface (F6) <sup>3</sup> Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (If present):       Type:       Hydric Soil Present? Yes       No?         Remarks:       Hydric Soil Present? Yes       No?         Hylp Water Table (A2)       1.2, 4A, and 4B)       Darial set decord for (C4)         Saturation (A3)       Salt Cuts (B11)       Depleted Bark Solis (C6)       Saturation Value (C1)         Secondary Indicators:       Free Augustic Invertebrates (B13)       Droisegee Patterns (B10)       Duriangee Patterns (B10)         Sutrace Water (A1)       Aq and 4B)       Saturation (C4)									
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2Location:       PL=F         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2Location:       PL=F         Histosol (A1)       Sandy Redox (S5)       Ladicators for Problematic Hydric Solis <sup>3</sup> :       2 cm Muck (A10)       Red Parent Matrial (TF2)         Histosol (A2)       Stripped Matrix (S6)       Red Parent Matrial (TF2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Dark Surface (F7)       wetland hydrology must be present,         Type:									
"Type:       C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains.       2Location: PL=F         Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls <sup>3</sup> .         Histos (A)       Sardy Redox (S5)       2 cm Muck (A10)         Histos (A1)       Stripped Matrix (S6)       Red Parent Material (TF2)         Black Histic (A3)       Loamy Gleved Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation         Sandy Redox Dark Surface (A12)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation         Sandy Gleved Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (If present):       Type:									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators (or Problematic Hydric Soils <sup>3</sup> :         Histic Splepodn (A2)       Sandy Redox (S5)       2 cm Muck (A10)         Histic Splepodn (A2)       Stripped Matrix (S6)       Red Parent Material (TF2)         Black Histic (A3)       Loarny Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Restrictive Layer (if present):       Type:       No       No         Type:	Type: C=Conce	entration, D=	Depletion, R	RM=Reduce	d Matrix CS=Co	overed or C	oated Sand Gr	ains. 2Location	: PL=Pore L
Histosol (A1)       Sandy Redox (S5)       2 cm Muck (A10)         Histic Epipedon (A2)       Stripped Matrix (S6)       Red Parent Material (TF2)         Black Histic (A3)       Loarny Muck (Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Depleted Blow Dark Surface (A11)       Depleted Matrix (F2)       Other (Explain in Remarks)         Depleted Blow Dark Surface (A12)       Redox Dark Surface (F7)       welland hydrology must be present,         Sandy Muck (Mineral (S1)       Depleted Dark Surface (F7)       welland hydrology must be present,         Sandy Muck (Mineral (S1)       Depleted Dark Surface (F7)       welland hydrology must be present,         Sandy Muck (Mineral (S1)       Depleted Dark Surface (F7)       welland hydrology must be present,         Sandy Muck (Mineral (S1)       Depleted Dark Surface (F7)       welland hydrology must be present,         Water Stained Leaves (B8) (except MLRA       Water-Stained Leaves (B8) (MLRA 1, 2         Wetland Hydrology Indicators:       1, 2, 4A, and 48)       Secondary Indicators (2 or more required)         Surface Water (A1)       2, 4A, and 48)       Dariage Patterns (B10)       Dariange Patterns (B10)         Water Marks (B1)       2, 4A, and 48)       Drainage Patterns (B10)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       4Mprodegn Sulfide Odor (C1)       Stain	Hydric Soil Indicate	ors: (Applicabl	e to all LRRs, i	unless otherw	vise noted.)		Indicators for	Problematic Hydric S	oils <sup>3</sup> :
Histic Epipedon (A2)       Stripped Matrix (S6)       Red Parent Material (TF2)         Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Wary Shallow Dark Surface (TF12)         Hydrogen Sulfide (A4)       Loamy Mucky Mineral (F1)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       "Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F6)       "Indicators of hydrophytic vegetation         Sandy Gleyed Matrix (S4)       Redox Dark Surface (F7)       wetland hydrology must be present,         Sandy Gleyed Matrix (S4)       Redox Depressions (F8)       unless disturbed or problematic.         Retrictive Layer (if present):       Type:       No       Z         Type:       Depth (inches):       Hydric Soil Present?       Yes       No       Z         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2       4A, and 4B)       4A, and 4B)         Saturation (A3)       Sati Crust (B11)       Drainage Patterns (B10)       Drainage Patterns (B10)       Saturation (X3)       Sati Crust (B13)       Dry-Season Water Table (C2)       Saturation (C1)       Saturation (C1)       Saturation (C1)       Saturation (C1)       Saturation (C1)       Saturation (C1)       Saturation (Nounds (IG5)       C2 <td< td=""><td>Histosol (A1)</td><td></td><td></td><td>Sandy Redo</td><td>ox (S5)</td><td></td><td>2 cm Muck</td><td>k (A10)</td><td></td></td<>	Histosol (A1)			Sandy Redo	ox (S5)		2 cm Muck	k (A10)	
Black Histic (A3)       Loamy Mucky Mineral (F1) (except MLRA 1)       Very Shallow Dark Surface (TF12)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F6)       Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Type:       Depletide Solid Veget Matrix (F3)       No       No         Wetland Hydrology Indicators:       Hydric Soil Present?       Yes       No         Primary Indicators (Inininum of one reguired: check all that apply)       Secondary Indicators (2 or more required)         Surface Water (A11)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2         HyDROLOGY       Mater Marks (B1)       Dry-Season Water Table (C2)       A4, and 48)         Saturation (A3)       Satif Crust (B11)       Dry-Season Water Table (C2)       Saturation Visible on Aerial Imagery (C3)         Sediment Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Saturation (U2)       Saturation (U2)         Alge Mat or Crust (B4)       Presence of Reduced Iron (C4)       Fallow Aquitard (D3)       Fallow Aquitard (D3)	Histic Epipedon	n (A2)		Stripped Ma	atrix (S6)		Red Paren	t Material (TF2)	
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Other (Explain in Remarks)         Depleted Matrix (F3)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Depleted Matrix (F3)       Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Sandy Mucky Mineral (S1)       Depleted Dark Surface (F7)       wetland hydrology must be present,         Type:       Depth (inches):       Hydric Soil Present? Yes       No _ 2         Remarks:       Present?       Yes       No _ 2         Remarks:       Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2         HybroloGY       1, 2, 4A, and 4B)       Drainage Patterns (B10)       Water-Stained Leaves (B9) (MLRA 1, 2         Surface Water (A1)	Black Histic (A3	3)		Loamy Muc	ky Mineral (F1) <b>(e</b> )	cept MLR/	A 1) Very Shall	ow Dark Surface (TF12	)
Oppleted Below Dark Surface (A11)       Depleted Matrix (F3)       ************************************	Hydrogen Sulfid	de (A4)		Loamy Gley	ed Matrix (F2)		Other (Exp	olain in Remarks)	
	Depleted Below	/ Dark Surface (	A11)	Depleted Ma	atrix (F3)				
	Thick Dark Surf	face (A12)		Redox Dark	Surface (F6)		<sup>3</sup> Indicators of	of hydrophytic vege	etation and
Sandy Gleyed Matrix (S4)	Sandy Mucky M	lineral (S1)		Depleted Da	ark Surface (F7)		wetland hydr	ology must be present,	
Restrictive Layer (if present): Type: Depth (inches):       Hydric Soil Present? Yes       No         Hydric Soil Present? Yes       No         Remarks:         HyDROLOGY         Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply)         Secondary Indicators (2 or more required)         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2         High Water Table (A2)       1, 2, 4A, and 4B)       Water-Stained Leaves (B10)       Drainage Patterns (B10)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Suffice Odor (C1)       Saturation Nicble on Arail Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Inon Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunet or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated	Sandy Gleyed N	Matrix (S4)		Redox Depi	ressions (F8)		unless distur	bed or problematic.	
Type:	Restrictive Layer (i	if present):							
Depth (inches):       Hydric Soil Present? Yes       No         Remarks:       HyDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more required)	Type:								
Remarks:       Productions (notify and construction)       Remarks:         HYDROLOGY       Secondary Indicators:         Primary Indicators (minimum of one required: check all that apply)       Secondary Indicators (2 or more required)         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA         High Water Table (A2)       1, 2, 4A, and 4B)         Saturation (A3)       Salt Crust (B11)         Water Marks (B1)       Aquatic Invertebrates (B13)         Dirinage Patterns (B10)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)         Saturation Visible on Aerial Imagery (C9)       Oxidized Rhizospheres along Living Roots (C3)         Geomorphic Positin (D2)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?         Surface Water Present?       Yes         No       X       Depth (inches):         Saturation Present?       Yes       No         X       Depth (inches):       >14*         Yes       No       X       Depth (inches):	Depth (inches)						Hydric Soil Prese	nt? Yes	No X
Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more required)         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2         High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stuned or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       X       Depth (inches):       >14"         Water Table Present?       Yes       No       X       Depth (inches):       >14"         Saturation Present?       Yes       No       X       Depth (inches):<	HYDROLOGY Wetland Hydrology	/ Indicators:							
Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MLRA 1, 2         High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):       >14*         Water Table Present?       Yes       No       X       Depth (inches):       >14*       Yes       No       X         Saturation Present?       Yes       No       X       Depth (inches):       >14*       Yes       No       X </td <td>Primary Indicators (r</td> <td>, minimum of one</td> <td>required; chec</td> <td>k all that apply</td> <td>)</td> <td></td> <td> Secondarv Ind</td> <td>icators (2 or more requ</td> <td>ired)</td>	Primary Indicators (r	, minimum of one	required; chec	k all that apply	)		Secondarv Ind	icators (2 or more requ	ired)
High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunde or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Surface Water Present?       Yes       No         Surface Water Present?       Yes       No       X       Depth (inches):       >14"         Wetland Hydrology Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       Yes       <	Surface Water (	(A1)		Water-Stain	ed Leaves (B9) <b>(e</b>	xcept MLR	A Water-Stai	ined Leaves (B9) <b>(ML</b>	RA 1. 2.
Saturation (A3)	High Water Tab	ole (A2)		1, 2, 4A,	and 4B)		4A. and	4B)	,_,
Water Marks (B1)	Saturation (A3)			Salt Crust (I	B11)		Drainage F	Patterns (B10)	
Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (C9)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       No       X       Depth (inches):         Surface Water Present?       Yes       No       X       Depth (inches):         Saturation Present?       Yes       No       X       Depth (inches):       >14"         Wetland Hydrology Present?       Yes       No       X       Depth (inches):       >14"         Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       Remarks:       Saturation Present throughout.	Water Marks (B	31)		Aquatic Inve	ertebrates (B13)		Drv-Seaso	n Water Table (C2)	
Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Sturface Water Present?       Yes       No         X       Depth (inches):       >14"       Yes       No         X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       Reserver	Sediment Depo	, sits (B2)		Hvdrogen S	ulfide Odor (C1)		Saturation	Visible on Aerial Image	erv (C9)
Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Field Observations:       Ves       No         Surface Water Present?       Yes       No       X       Depth (inches):       >14"         Water Table Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       If available:	Drift Deposits (E	B3)		Oxidized Rh	nizospheres along L	_iving Roots (C	C3) Geomorph	ic Position (D2)	<b>y</b> ( <b>)</b>
Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Trost-Wesent?       Yes       No         X       Depth (inches):       >14"       Wetland Hydrology Present?         Yes       No       X       Depth (inches):       >14"         Saturation Present?       Yes       No       X       Depth (inches):         (includes capillary fringe)       No       X       Depth (inches):       >14"         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.	Algal Mat or Cru	, ust (B4)		Presence of	f Reduced Iron (C4	.)	Shallow Ac	guitard (D3)	
Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR A)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Frield Observations:       Surface Water Present?       Yes       No       X       Depth (inches):       Vetland Hydrology Present?         Water Table Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       Remarks:	Iron Deposits (E	35)		Recent Iron	Reduction in Tillec	Soils (C6)	FAC-Neutr	al Test (D5)	
Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Field Observations:       Surface Water Present?       Yes       No       X       Depth (inches):       Wetland Hydrology Present?         Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         Includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       Ketland Hydrology Present?	Surface Soil Cra	, acks (B6)		Stunted or S	Stressed Plants (D	1) ( <b>LRR A</b> )	Raised An	t Mounds (D6) (LRR /	<b>A</b> )
Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes         No       X       Depth (inches):         Water Table Present?       Yes         No       X       Depth (inches):         Saturation Present?       Yes         No       X       Depth (inches):         Saturation Present?       Yes         No       X       Depth (inches):         Operation Present?       Yes         No       X       Depth (inches):         Depth (inches):       >14"         Yes       No         Zervise Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:         Remarks: Soils dry to moist throughout.	Inundation Visib	ole on Aerial Ima	agery (B7)	Other (Expl	ain in Remarks)	. ,	Frost-Heav	ve Hummocks (D7)	-
Field Observations:         Surface Water Present?       Yes       No       X       Depth (inches):	Sparsely Vegeta	ated Concave S	urface (B8)	_ ` '	,			· · ·	
Surface Water Present?       Yes       No       X       Depth (inches):		<u> </u>	. /						
Water Table Present?       Yes       No       X       Depth (inches):       >14"       Wetland Hydrology Present?         Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         (includes capillary fringe)       No       X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       Kernel Solution       Kernel Solut	Surface Water Pres	sent? Voc	N	lo Y	Depth (inches)				
Saturation Present?       Yes       No       X       Depth (inches):       >14"       Yes       No       X         (includes capillary fringe)       No       X       Depth (inches):       >14"       Yes       No       X         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks: Soils dry to moist throughout.       X	Water Table Precer	nt? Voo	N		Depth (inches)	·	Watland H	wdrology Present?	
(includes capillary fringe)     NO	Saturation Process	····· 185	N		Depth (inches)	· <u>&gt;14</u>		Vee	No Y
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Soils dry to moist throughout.	(includes capillary fi	ringe)	N	NU <u> </u>	Depth (inches)	. >14		162	
Remarks: Soils dry to moist throughout.	Describe Recorded	Data (stream o	auge, monitorir	ng well, aerial p	hotos, previous ins	spections), if a	vailable:		
Remarks: Soils dry to moist throughout.		(= · · · · · · · · · · · · · · · · · · ·		с , р		, , u			
	Remarks: Soils dry	to moist throug	nout.						



### Appendix B: VECO Data Sheets (VECO Plots A-B)

Site:	Evah Lane 2-Parcel Partition		
Job Number:	<u>5579</u>		
Investigators:	Haley Smith		
Date:	January 24, 2017		
Community	Non-native/invasive grass hillslope		
Location	: Northwest portion of project stie		
Plot ID	: VECO Plot A		
Tree species, % Cover, Na	ative, Invasive - 30 foot radius, >5% cover:		30%
* Acer macrophyllum	big-leaf maple	native	10%
* Alnus rubra	red alder	native	10%
* Pseudotsuga menziesii	Douglas-fir	native	10%
, , , , , , , , , , , , , , , , , , ,	U U U U U U U U U U U U U U U U U U U		
Shrub species, % Cover, N	Native. Invasive - 30 foot radius. >5% cover		75%
* Rubus armeniacus	Himalavan blackberry	invasive	75%
Herb Species % Cover N	ative Invasive - 10 foot radius >5% cover:		25%
* Phalaris arundinacea	reed capary grass	invasive	25%
	reed canary grass	IIIVasive	2070
^ Dominant			1000/
		I otal Cover	130%
a. <del>-</del>	Absolute areal cover		
% Tree canopy:	30%		
% Cover by natives:	30%		
	/5% 05%		
% Non-native:	25%		
	130%		
	Degradad		
Corridor Condition	: Degraded		

Site:	Evah Lane 2-Parcel Partition		
<u>Job Number:</u>	<u>5579</u>		
Investigators:	Haley Smith		
<u>Date:</u>	<u>January 24, 2017</u>		
<b>C</b> ommunity it			
Community:	Native tree canopy		
Location:			
Plot ID:	VECO PIOLB		
Tree species, % Cover, Na	tive, Invasive - 30 foot radius, >5% cover:		50%
* Acer macrophyllum	big-leaf maple	native	10%
* Pseudotsuga menziesii	Douglas-fir	native	30%
* Quercus garryana	Oregon white oak	native	10%
Shrub species, % Cover, N	ative, Invasive - 30 foot radius, >5% cover:		40%
* Cornus nuttallii	Pacific flowering dogwood	native	20%
* Rubus armeniacus	Himalayan blackberry	invasive	20%
			0.50/
Herb Species, % Cover, Na	ative, Invasive - 10 foot radius, >5% cover:	·	25%
<sup>*</sup> Phalaris arundinacea	reed canary grass	invasive	25%
* Dominant			
Dominant		Total Cover	4450/
	Abaclute great as for	rotal Cover	115%
% Troo canony			
% Cover by patives:	<b>JU /0</b> 70%		
% Invasive:	20%		
% Non-native	20%		
	115%		
	11070		
Corridor Condition:	Marginal		



## **Appendix C: Representative Photographs**





**Photo A.** View northwest of wetland Plot 2 (flagged in yellow) adjacent to upland to north.



Photo C. View north of upland hillslope just above wetland.



**Photo B.** View west of buried 12 inch concrete pipe draining stormwater from north into wetland.



**Photo D.** View southeast of 1-foot-wide manmade drainage ditch, flowing southeast into pond.





Photo E. View north of wetland Plot 4 and adjacent upland Plot 3 (flagged in yellow) with wetland boundary in-between (flagged in orange).



Photo G. View northeast of northern portion of wetland surrounding the pond.



Photo F. View northwest of eastern manmade ditch flowing into pond.



Photo H. View east of wetland Plot 5 in slight concave landform east of pond.





**Photo E.** Photo compilation of area just south of property boundary where pond outlet to the Tualatin river is located.



**Photo G.** View west of wetland boundary (flagged in orange) and pond area along the northern side.



# Exhibit E: TVF&R Acceptance of Fire Access

From:	Lais, Erich <elais@westlinnoregon.gov></elais@westlinnoregon.gov>
Sent:	Friday, May 19, 2017 1:53 PM
То:	Zach Pelz
Cc:	Jon Morse; Spir, Peter
Subject:	RE: 14th Street Garbage Truck Turnaround Exhibit

### Zach,

I'm fine with the proposal as that is probably the best solution given the existing driveways and landscaping. I'd like the existing driveway to be built to City standards back to the edge of the right of way. They could saw cut and remove what is there and put back 4" of AC on 10" of  $\frac{3}{4}$ " rock. This will give adequate structure for the garbage trucks to turn around on.

Let me know if you have any questions.

Thanks!

From: Zach Pelz [mailto:pelzz@aks-eng.com]
Sent: Tuesday, May 09, 2017 11:26 AM
To: Lais, Erich <elais@westlinnoregon.gov>
Cc: Jon Morse <jonm@aks-eng.com>
Subject: FW: 14th Street Garbage Truck Turnaround Exhibit

Good morning, Erich -

I wanted to follow-up to make sure you received the attached preliminary truck turnaround layout for Evah Lane (emailed last week) and ask if you have any questions; please don't hesitate to call or email if so.

Thanks,

Zach Pelz, AICP

### <u>AKS</u>

### **AKS ENGINEERING & FORESTRY, LLC**

P: 503.563.6151 Ext. 218 | F: 503.563.6152 | <u>www.aks-eng.com</u> | <u>PelzZ@aks-eng.com</u> Offices in: Tualatin, OR | Salem-Keizer, OR | Vancouver, WA

From: Zach Pelz
Sent: Thursday, May 04, 2017 10:38 AM
To: Lais, Erich <<u>elais@westlinnoregon.gov</u>>
Cc: Jon Morse <<u>jonm@aks-eng.com</u>>
Subject: FW: 14th Street Garbage Truck Turnaround Exhibit

Good morning, Erich -

Please find attached our preliminary truck turn around layout per our previous conversation. You'll notice that the turnaround relies on the use of an existing driveway; however, this driveway is in the public right-of-way and the design results in the least disruption to their existing driveway and landscaping.

Don't hesitate to let me know of any questions. Thanks,

### Zach Pelz, AICP

# AKS ENGINEERING & FORESTRY, LLC

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From: Lawrence Pankey
Sent: Thursday, May 04, 2017 10:35 AM
To: Zach Pelz pelzz@aks-eng.com
Cc: Jon Morse <jonm@aks-eng.com
Subject: 14th Street Garbage Truck Turnaround Exhibit</pre>

See attached.

Lawrence Pankey, EI, LSI



#### AKS ENGINEERING & FORESTRY, LLC

12965 SW Herman Road, Suite 100 | Tualatin, OR 97062 P: 503.563.6151 Ext. 217 | F: 503.563.6152 | <u>www.aks-eng.com</u> | <u>PankeyL@aks-eng.com</u> Offices in: Tualatin, OR | Salem-Keizer, OR | Vancouver, WA

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**Erich Lais** Assistant City Engineer Public Works Support

22500 Salamo Road West Linn, Oregon 97068 elais@westlinnoregon.gov westlinnoregon.gov 503-722-3434

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From:	Zach Pelz
Sent:	Tuesday, May 09, 2017 11:26 AM
То:	Lais, Erich
Cc:	Jon Morse
Subject:	FW: 14th Street Garbage Truck Turnaround Exhibit
Attachments:	5579 20170504 TRUCK TURNAROUND.pdf

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### Zach Pelz, AICP

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Offices in: Tualatin, OR | Salem-Keizer, OR | Vancouver, WA

From: Lawrence Pankey
Sent: Thursday, May 04, 2017 10:35 AM
To: Zach Pelz pelzz@aks-eng.com
Cc: Jon Morse <jonm@aks-eng.com
Subject: 14th Street Garbage Truck Turnaround Exhibit</pre>

See attached.

Lawrence Pankey, EI, LSI



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From: Lawrence Pankey
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Subject: 14th Street Garbage Truck Turnaround Exhibit

See attached.

Lawrence Pankey, EI, LSI



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From:	Darby, Ty M. <ty.darby@tvfr.com:< th=""></ty.darby@tvfr.com:<>	
Sent:	Friday, October 21, 2016 9:26 AM	
То:	Spir, Peter; Le, Khoi	
Cc:	Jon Morse; Zach Pelz	
Subject:	RE: pre-app notes for Evah Lane	

### Peter and Khoi,

I stopped by and took a look at Evah Lane yesterday. As Evah Lane heads south to the proposed development, it gets pretty steep and narrow and it would be safest for our apparatus to perform turn-a-round movements at the top of the hill. In the NE corner of Evah (see below), there appears to be a small existing vehicle turn-a-round which would be beneficial for fire apparatus turning movements. Please note that it does not appear to meet our traditional "hammerhead" spec nor does it have "no parking" signage.

I also located the fire hydrant at the bottom of the hill. This would be the best hydrant to conduct the fire flow test from. Please note that it would be nice to add a blue hydrant marker in the street to help better identify the hydrant in the future.

Let me know if you have any questions.

### Thank you,



**Ty Darby | Deputy Fire Marshal** Tualatin Valley Fire & Rescue Direct: 503-259-1409 <u>www.tvfr.com</u>

From: Spir, Peter [mailto:pspir@westlinnoregon.gov]
Sent: Thursday, October 20, 2016 4:30 PM
To: 'Pat@obllc.com'; 'jonm@aks-eng.com'; Darby, Ty M.; 'Zach Pelz'
Cc: Shroyer, Shauna
Subject: pre-app notes for Evah Lane

**Peter Spir** Associate Planner Planning

22500 Salamo Rd. West Linn, Oregon 97068 pspir@westlinnoregon.gov westlinnoregon.gov 503-723-2539



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