

PRE-APPLICATION CONFERENCE

Thursday, November 7, 2024

Willamette Room City Hall 22500 Salamo Rd West Linn

10:00 am: Proposed 24-unit cottage cluster development

Applicant: Chris Staggs, applicant

Site Locations: 19775, 19885, 19905, 19915, 19925, 19945, 19975 Willamette Drive

Neighborhood Assn: Robinwood Neighborhood Association

Planner: Project #: PA-24-19





Planning & Development • 22500 Salamo Rd #1000 • West Linn, Oregon 97068

Pre-Application Conference Request

For Staff to Complete:

11/07/24 Time: 10:00am **Conference Date:** PA 24-19

\$1,200 **Staff Contact:**

Pre-application conferences are held on the first and third Thursdays of the month between 9:00 am and 1:00 pm. Appointments must be made by 5:00 pm, 15 days before the meeting date. The applicant has a choice of an in-person or virtual meeting. To schedule a conference, submit this form, a site plan, and accompanying materials through the Submit a Land Use Application web page. The City will contact you to collect payment. Pre-application notes are valid for 18 months.

Property Owner Information

GRS Properties, LLC mikes@grsproperties.com Email:

(503)220-0354 Phone #: PO Box 8803

Address: Portland, OR 97207

Applicant Information

Chris Staggs Name:

Email: Phone #: Address:

Address of Subject Property (or tax lot): 19885 willamette Dr.

West Linn, OR

REQUIRED ATTACHMENTS:

A project narrative with a detailed description of the prosite.	pposed project. Briefly describe the physical context of the
A list of questions or issues the applicant would like the	City to address.
A dimensional site plan that shows:	
 □ North arrow and scale □ Location of existing trees (a tree survey is highly recommended) □ Streets Abutting the property and width of right of way 	 Location of all easements (access, utility, etc.) Vehicle and bicycle parking layout (including calculation of required number of spaces, based on use and square footage of building), if applicable
 □ Location of creeks and/or wetlands (a wetland delineation is highly recommended) □ Property Dimensions, existing buildings, and building setbacks 	 Location of existing and proposed access and driveways. Include the proposed circulation system for vehicles, pedestrians, and bicycles, if applicable.

I certify that I am the owner or authorized agent of the owner: Chris Staggs APPLICANT:

□ Location of existing utilities (water, sewer, etc.)

□ Conceptual layout, design, proposed buildings,

The undersigned property owner authorizes the requested conference and grants city staff the right of entry onto the property to review the application.

GRS Properties, LLC PROPERTY OWNER: PO Box 8803

□ Slope map (if slope is 25% or more)

building elevations, and setbacks

Michael A Sexter 8720240 neggi: 597207

DATE: 09/05/2024

DATE: 09/05/2024

□ Proposed stormwater detention system with

topographic contours

2C2D187FEC3544D.

October 1, 2024

Willamette Drive Cottages Pre-Application Conference Request

Project Narrative

The proposed project is to build (24) two and three bedroom Cottage Homes on the vacant land located at 19775 Willamette Drive, West Linn, Oregon. The existing zoning is R-10 with Cottage Cluster use. The existing site are is approximately 1.87 Acres. Access to all utilities is in Willamette Drive. The two northern parcels have been identified as a Water Resource Area and will be preserved according to city standards and proposed mitigation and planting plan (see attached assessment document).

Questions

- 1. Articulate specific city and/or ODOT requirements in ROW, if any.
- 2. Will city consider bringing sanitary main to north or south property line at city expense?
- 3. Articulate specific trash pick up requirements
- 4. Articulate specific fire department requirements
- 5. Confirm tree removal and planting standards (every effort will be made to preserve existing trees, however most on the lots with new homes will be removed and replanted with new trees)
- 6. Confirm land use type, approval process, and timing
- 7. Confirm SDC fee's for development and indicate city incentives for development related to relief of SDC fee's.



NATURAL RESOURCE ASSESSMENT



Willamette Drive Cottages

19775 Willamette Drive West Linn, Oregon

Prepared for:

Aria Touch LLC 502 7th Street Oregon City, Oregon 97045

Issued on:

February 2, 2023

Project No. 1056-22003-01

EVREN NORTHWEST, INC.
P.O. Box 14488, Portland, Oregon 97293
T. 503-452-5561 / E. ENW@EVREN-NW.com

Natural Resource Assessment

Report for:

19775 Willamette Drive West Linn, Oregon

Has been prepared for the sole benefit and use of our Client:

Aria Touch LLC 502 7th Street Oregon City, Oregon 97045

Issued February 1, 2023 by:



Heather Caporaso
Senior Environmental Scientist

Victoria Bennett
Principal Environmental Scientist

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WITHIN TEXT (LABELED BY SECTION-NUMBER)

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- 2 Tax Lot Map
- 3 Aerial Map
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- 6 Proposed Water Resource Area Mitigation Planting Plan

Appendices

A Site Photographs

List of Acronyms and Abbreviations

bgs below ground surface

CDC Community Development Code

Client Aria Touch LLC

ENW EVREN Northwest, Inc.

MDA maximum disturbance area

SF square feet

Subject site 19775 Willamette Drive, West Linn, Oregon 97068

WRA Water Resource Area

1.0 Introduction

On behalf of Aria Touch LLC (Client), EVREN Northwest, Inc. (ENW) has prepared this report documenting a Natural Resource Assessment of a riparian corridor and Water Resource Area (WRA) extending through 19775 Willamette Drive, West Linn, Oregon 97068 (subject site; Figures 1, 2 and 3). This will include reducing and enhancing the WRA.

The subject site consists of three tax lots (Tax Lots 100, 200, 300) located to the west side of Willamette Drive between White Cloud Circle and Chow Mein Lane in West Linn, Oregon (Figure 2). The subject site is currently vacant of structures and is occupied by vegetated areas. A more detailed description of the site development is presented in Section 2.1.

Since the subject property has a year-round stream (defined as a Water Resource) traversing through it, and the city has highlighted the surrounding areas a riparian corridor, a 100-foot riparian corridor buffer (defined as a Water Resource Area), is present on each side of the corridor, which spans the entire property. Any development within 100 feet of the stream needs further investigation of the site prior to the issuance of a reduction in the WRA boundary by the City of West Linn in accordance with Chapter 32 Water Resource Area Protection of the Community Development Code (CDC).

1.1 Purpose

The purpose of this report is to substantiate a reduction of the WRA (decreased setbacks) to approximately 40 linear feet on the southern side of the stream, per two separate processes, CDC 32.070 and 32.110. This proposed WRA boundary reduction will allow for future development and given that the development will include enhancement of the WRA, as well as onsite mitigation (removal of invasive species and replacement with native plantings) within the riparian corridor, this reduction is not believed to deteriorate the functions of the current ecosystem. If granted under CDC 32.110.B.2, 30 percent of the total area of the WRA on Tax Lots 100 and 200 (33,592 square feet (SF)), would be allowed for future development. This equates to a maximum disturbance area (MDA) of 10,078 SF total. As the WRA only partially extends onto Tax Lot 300, provision CDC 32.080.B would apply to implement mitigation measures in a 1:1 ratio, totaling 2,923 SF of mitigation within the WRA. The overall design intent is to provide development on Tax Lot 300 and within in the MDA on Tax Lot 200, while enhancing the degraded WRA on both Tax Lots 100 and 200. It would restore a section of the riparian corridor which is currently lacking due to substantial overgrowth of invasive species.

1.2 Proposed Setback Reduction

1.2.1 Section 32.070 Alternate Review Process

The proposed project will comprise of a maximum development of approximately 9,187 SF on Tax Lot 300, with a proposed reduction of the WRA using the 32.070 Alternative Review Process. Currently the WRA encompasses 2,923 SF of Tax Lot 300. The conditions of this WRA are significantly degraded with overgrowth of invasive species, resulting in the non-optimization of the resource area. A reduction of approximately 2,923 SF is proposed on Tax Lot 300, with mitigation occurring on Tax Lots 100 and 200, nearer to the water resource (Figures 5,6). This area will encroach further towards the WRA and is located within the 100-foot boundary around the WRA. However, many other residences adjacent to this site have

previously impacted the WRA due to past development, and the WRA is significantly degraded with invasive species growth.

The proposed WRA boundary reduction will allow for more development and landscaping than the existing WRA boundary, however, with the proposed enhancement and mitigation this reduction is not believed to deteriorate the functions of the current ecosystem. Although the WRA reduction will potentially add more square footage of impervious surface in the future, much of the property's vegetation is highly deteriorated by invasive species with minimal native plants.

1.2.2 Section 32.110 Hardship Provision

Due to the extent of the WRA on all of Tax Lot 100 and the majority of Tax Lot 200, the WRA reduction is also proposed through Hardship Provisions and will reduce the buffer by approximately 10,078 SF (Figure 5). In accordance with 32.080 Approval Criteria, a 1:1 ratio of mitigation area (10,078 SF) will be implemented on all of Tax Lot 100 and western portions of Tax Lot 200 (Figure 6). These mitigation measures will provide better support for a thriving ecosystem post restoration and enhancement. Currently, the majority of vegetation within the WRA is invasive, which limits species diversity and functional habitat within the WRA. See Section 2.2 for further information. Denying the reduction in the WRA would restrict the landowners, while not supporting a higher quality WRA.

2.0 Site Description

The subject property is located at 19775 and 19885 Willamette Drive, West Linn, Oregon 97068 and is identified as Township 2 South, Range 1 East, Section 24, a portion of the NW 1/4, Tax Lots 100, 200 and 300 of the Willamette Meridian. The site is zoned as part of Metro's Urban Growth Boundary and contains a steep slope in several areas, ranging in elevation between approximately 195 to 216 feet above mean sea level and generally sloping to the northeast. The subject site measures approximately 0.98 acres, is currently vacant of structures, and is occupied by vegetation including invasive shrub species across the majority of the property.

The subject site is situated on a ravine with southeast and northwest-facing slopes and is approximately 3,800 feet west of the Willamette River. A year-round stream, identified by West Linn's WRA Map as Trillium Creek, traverses west to southeast on Tax Lot 100, continuing onto a small northeast corner of Tax Lot 200 before entering into a culvert beneath Willamette Drive. Vegetation on the subject site is characterized as poor forested riparian corridor with invasives seen throughout (See Section 2.2 for more details).

As mapped in West Linn's WRA Map (May 2014), Tax Lot 100 is fully encompassed within the WRA, and Tax Lot 200 is almost entirely occupied by the WRA. Approximately 2,923 SF of the WRA extends onto the northeast portion of Tax Lot 300.

2.1 Site Reconnaissance: Survey of On-Site Resources

A site reconnaissance was conducted on December 7, 2022 to document current site conditions. Onsite observations determined that vegetation consists of predominately invasive plant species which border a year-round stream that traverses through northern areas of the site and extends beneath Willamette

Drive (adjacent east) through a culvert. Due to significant Himalayan blackberry growth, the majority of the site was obstructed from view.

2.2 Extent and Condition of On-Site Vegetated Corridor

The observable vegetated corridor of the subject site was noted to have several significant trees, and some scattered native plants. The remainder of the site was observed to be covered in dense invasive vegetation. See Table 2-1 below for the detailed list of observed plants.

Native Plant Species on site	Invasive Plant Species on site		
Bracken fern (Pteridium aquilinum)	Bindweed (Calystegia silvatica)		
Maidenhair fern (Adiantum pedatum)	English ivy (Hedera helix)		
Salal (Gaultheria shallon)	Field horsetail (Equisetum arvense)		
Sword fern (Polystichum munitum)	Himalayan blackberry (Rubus armeniacus)		
	Holly (Ilex aquifolium)		
	Japanese knotweed (Reynoutria japonica)		
	Reed canarygrass (Phalaris arundinaea)		

Table 2-1. Plant Inventory for Subject Site

3.0 On-Site Mitigation

3.1 Preparation

WRA mitigation and enhancement will be conducted on the subject property with a goal to create an upland buffer of plant communities dominated by native plants. No offsite mitigation is proposed. The following mitigation calculations will be based on the most conservative measurements of 13,001 SF. The proposed WRA area features a forest overstory dominated by native trees with an understory dominated by invasive species including English ivy (Hedera helix), bindweed (Calystegia silvatica) and Himalayan blackberry (Rubus armeniacus). Other invasives present include Japanese knotweed (Reynoutria japonica), field horsetail (Equisetum arvense), reed canarygrass (Phalaris arundinaea) and holly (Ilex aquifolium).

The first step to preparing the area will be to mechanically remove, then spray out non-native plants. A glyphosate-based herbicide will be applied to non-native plants two times, at least two-weeks apart. All herbicide applications will be implemented in accordance with product label guidelines. Spot spraying of invasive species will also be conducted at least once to reduced invasion risk into the mitigation area. Within 25 feet of the stream (Zone A), an aquatic-safe glyphosate-based (e.g., Rodeo) will be used to treat noxious weed.

Upon completion of initial noxious weed management, the WRA mitigation area will be prepared for planting. Preparation will consist of flagging planting areas in the field and staging soil amendments and mulch. Planting wells will be hand dug and will receive a 50% amendment of an outdoor potting mix to increase fertility and moisture retention. Planting areas will be identified in maps and locations will be communicated to the landscaping contractor.

A total of 13,001 SF of the subject property will be mitigated in the highly degraded WRA and will occur between the proposed MDA and Trillium Creek (Figure 6). Responsible parties for onsite mitigation work and proposed development include, but are not limited to, property owner and applicant.

3.2 Planting Plan

The planting scheme is based upon West Linn Community Development Code 32.100, which informs the type, quantity as well as the timing of plant installation. The planting scheme for the proposed WRA includes species of 4 trees, 8 shrubs and 4 herbs all containerized and of native origin found on the Portland Plant List. The WRA planting plan is included in Table 3-1.

Tree and shrub planting locations will be laid out in the mitigation area. Trees will be planted as individuals, spaced 10 feet on-center, while shrubs will be planted in clusters of 3 plants in a 4 to 5 feet on-center spacing. The planting scheme includes 130 trees and 650 shrubs (780 total), all of native origin. The selection of plants is based upon native species present in the vicinity and those species well-adapted to local conditions. Trees and shrubs selected are intended to provide structural cover as well as nectar for pollinators and fruit and mast for small wildlife. Planting will be conducted between October 15th and April 30th. If animal damage is expected, plantings will be protected by sleeves. Once the trees and shrubs are installed, the plantings will be surrounded by a conifer-based bark mulch (preferably hemlock); trees will receive a ring of mulch extending 2 feet from the stem, while shrubs will receive a ring of mulch extending 1 foot from the stem. The mulch will be applied 3" deep surrounding the plantings. About 15 cubic feet (8 trade-size bags) of bark mulch will be required to cover the planting areas. After the mulch application, 1 pound of a native upland seed mix will be broadcast to the balance of the WRA not covered by the mulch. The seed mix will consist exclusively of species native to the West Linn area and include grasses and wildflowers.

The mitigation area will be irrigated from June 15th to October 15th at a rate of 1" per week to reduced drought-related mortality. Periodic deep watering is recommended to achieve the weekly rate, as opposed to regular light watering. Deep watering encourages deep rooting and will reduce irrigation needs long-term for the WRA. Summer irrigation will continue for the three years following the planting.

Beyond irrigation, maintenance of the mitigation area includes non-native plant control, reapplication of mulch and replacement of dead plants. Noxious weeds along the mitigation area margin will be controlled by spot application of herbicides. Mulch surrounding tree and shrub plantings will be reapplied as needed to the maintain 3" material depth. All dead trees will be replaced in-kind. Shrubs will be replaced in-kind as needed to maintain 80% survival (n=624).

There are multiple significant trees on the property including red alder (*Alnus rubra*) and Douglas fir (*Pseudotsuga menziesii*) (see Figure 4). These, along with other native plants, will be worked around and will remain unharmed throughout the mitigation process. This will allow for the least impact on the soil, species, and habitat while also increasing plant diversity and ecosystem functions in the WRA.

Mitigation will occur to the density standards outlined in CDC 32.100. Mitigation will take place in the WRA. A total of 13,001 SF of the subject property will be mitigated in the highly degraded WRA area. See below for planting details within the mitigation area.

Table 3-1. Planting Details for WRA Mitigation (13,001 SF)

Common Name	Scientific Name	Туре	Spacing (cluster size)	Size Class	Planting Zone	Quantity
Cascara	Rhamnus purshiana	Tree	10' (1)	2 gal. or 24+" BR	В	60
Grand fir	Abies grandis	Tree	10'(1)	2 gal. or 24+" BR	В	20
Vine maple	Acer circinatum	Tree	10' (1)	2 gal. or 24+" BR	В	30
Western red cedar	Thuja plicata	Tree	10' (1)	1 gal. or 18+" BR	Α	20
Black twinberry	Lonicera involcrata	Shrub	5' (1)	1 gal. or 18+" BR	Α	150
Oregon grape	Berberis aquifolium	Shrub	4' (1)	1 gal. or 6+" BR	В	60
Osoberry	Oemleris cerasiformis	Shrub	4' (3)	2 gal. or 24+" BR	А	10
Red elderberry	Sambucus racemosa	Shrub	5' (1)	1 gal. or 18+" BR	Α	10
Red-flowering currant	Ribes sanguineum	Shrub	5' (1)	1 gal. or 18+" BR	В	20
Red osier dogwood	Cornus stoniferia	Shrub	4' (3)	1 gal. or 24" BR	А	120
Salmonberry	Rubus spectabilis	Shrub	4' (3)	1 gal. or 18+" BR	A or B	120
Snowberry	Symphoricarpos albus	Shrub	4' (3)	1 gal. or 18+" BR	A or B	140
Slough sedge	Carex obnupta	Herb	2' (3)	4+" Plug or BR	Α	40
Blue wildrye*	Elymus glaucus	Herb	Broadcast	N/A	A or B	2 lb
Spike bentgrass*	Agrostis exarata	Herb	Broadcast	N/A	A or B	2 lb
Tall manna- grass*	Glyceria elata	Herb	Broadcast	N/A	A or B	2 lb

^{*}Alternatively, use 3 lbs. of Sunmark Seeds Native Riparian Mix, which includes Elymus glaucus, hordeum brachyantherum, and Bromus carinatus at: https://www.sunmarkseeds.com/wpcontent/uploads/2015/02/NP-Native-Riparian-2015.pdf

4.0 Narrative Responses

CDC Chapter 30.080 Approval Criteria (Alternative Review Process)

A. The proposed WRA shall be, at minimum, qualitatively equal, in terms of maintaining the level of functions allowed by the WRA standards of CDC 32.060(D):

According to West Linn's WRA Map, the areas adjacent to Trillium Creek onsite are mapped as a riparian corridor. Table 32-2 of Chapter 32 of the CDC WRA Protection stated that the riparian corridor has a vegetated corridor extending 100 feet from the mapped edge of the on-site Ordinary High-Water Level (Figure 4).

The vegetated corridor of the subject site was observed to have many significant trees, and some scattered native plants, noted in Table 2-1. The remainder of the site was observed to be covered in dense invasive vegetation, including Himalayan blackberry (*Rubus armeniacus*), English ivy (*Hedera helix*), Japanese knotweed (*Reynoutria japonica*), bindweed (*Calystegia silvatica*) and holly (*Ilex aquifolium*).

The current conditions of the WRA of the subject site is significantly degraded due to the dense invasive vegetation. A reduced vegetated buffer is proposed, in exchange for mitigation measures which will enhance the WRA with native plant species and removal of invasive species such as English Ivy and Himalayan blackberries. See Section 3.2 for further information on planting plans.

- B. If a WRA is already significantly degraded (e.g., native forest and ground cover have been removed or the site dominated by invasive plants, debris, or development), the approval authority may allow a reduced WRA in exchange for mitigation, if:
 - a. The proposed reduction in WRA width, coupled with the proposed mitigation, would result in better performance of functions than the standard WRA without such mitigation. The approval authority shall make this determination based on the applicant's proposed mitigation plan and a comparative analysis of ecological functions under existing and enhanced conditions.
 - The proposed WRA reduction and conjugate mitigation/restoration will result in better performance and function of the WRA due to the removal of invasive species and planting of native species. The mitigation will cover a total of 13,001 SF and take place near the water resource area on Tax Lots 100 and 200.
 - b. The mitigation project shall include all of the following components as applicable. It may also include other forms of enhancement (mitigation) deemed appropriate by the approval authority.
 - i. Removal of invasive vegetation.

The proposed WRA area features a forest overstory dominated by native trees with an understory dominated by invasive species including English ivy (Hedera helix), bindweed (Calystegia silvatica) and Himalayan blackberry (Rubus armeniacus). Other invasives present include Japanese Knotweed (Reynoutria japonica) and field horsetail (Equisetum arvense). Weed management will primarily consist of hand-pulling the expanses of sprawling English ivy and bindweed. All other invasives will be cut to the ground and material will be removed offsite. The blackberry and knotweed locations will be flagged and

- monitored for regrowth. Upon the appearance of regrowth, a spot application of the vinegar preparation will be applied along with mechanical reduction. Several applications may be required to kill the knotweed.
- ii. Planting native, non-invasive plants (at minimum, consistent with CDC 32.100) that provide improved filtration of sediment, excess nutrients and pollutants. The amount of enhancement (mitigation) shall meet or exceed the standards of CDC 32.090(C).

The planting plan for the proposed restoration and mitigation includes all native species including 130 trees, 650 shrubs, and 40 herbs. See Section 3.2 and Table 3-1 for further information on planting details.

- iii. Providing permanent improvements to the site hydrology that would improve water resource functions.
 - Stormwater on site currently infiltrates the ground surface and flows along topographic contours of the property, releasing into the WRA. No changes to storm water management is proposed or expected.
- iv. Substantial improvements to the aquatic and/or terrestrial habitat of the WRA. Mitigation on the subject site is expected to substantially enhance the habitat of the WRA by planting native plant species which will improve erosion and pollution along with habitats for native wildlife.
- C. Identify and discuss site design and methods of development as they relate to WRA functions. Mitigation will occur to the density standards and requirements outlined in CDC 32.1000. A total of 13,001 SF of the subject property will be mitigated in the highly degraded WRA area and the methods of development include the creation of a buffer with a plant community dominated by native plants. Trees and shrubs will be planted in accordance with on-center spacing recommendations along with the inclusion of an outdoor potting mix. See Section 3.0 for further details of mitigation design and methods.
- D. Address the approval criteria of CDC 32.060, with the exception of CDC 32.060(D). No application for development on property containing a WRA shall be approved unless the approval authority find 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:
 - Current conditions of the WRA consist of densely vegetated invasives, with scattered natives, thus the WRA has already endured impacts which has resulted in a significantly degraded condition.
 - b. Storm water and storm water facilities:

Stormwater on site currently infiltrates the ground surface and flows along topographic contours of the property, releasing into the WRA and stream. No current proposed actions will impact the storm water flow to the water resource area. With the increase in native vegetation, the WRA is expected to better retain runoff than pre-restoration.

No roadways, rights-of-ways, or storm water detention and/or treatment facilities are proposed or currently located within the WRA of the proposed development.

- c. Repealed by Ord. 1647.
- d. Approval of criterion of CDC 32.060(D) is exempted under CDC 30.080 Approval Criteria.
- e. Per the submittals required by CDC 32.050(F)(4), the applicant must demonstrate that the proposed methods of rendering known or potential hazard sites for development, including proposed geotechnical remediation, are feasible and adequate to prevent landslides or other damage to property and safety. The review authority may impose conditions, including limits on type of intensity of land use, which it determines are necessary to mitigate known risks of landslides or property damage.

The project site has a ravine that follows the flow of the river and ranging bank slopes. Development hazards relating to risk of landslides or property damage are not expected to occur under the proposed WRA reduction and geotechnical studies are to be performed prior to site development.

f. Roads, driveways and utilities:

No new roads, driveways or utilities are included in the proposed WRA reduction. No crossing of fish bearing streams or utilities spanning fish bearing streams is included in the proposed development. No fill is proposed within the ordinary high-water mark of the riparian corridor. If excavation is needed for the restoration of the riparian corridor within the ordinary high-water mark, then permits will be obtained from the city, U.S Army Corps of Engineers and Oregon Department of State Lands.

g. Passive recreation:

No paved or unpaved trails, footbridges or interpretive facilities are included in the proposed development.

h. Daylight piped streams:

No daylighting of piped streams is included in the proposed development. The onsite water resource is an open, year-round channel.

- i. The following habitat friendly development practices shall be incorporated into the design of any improvements or projects in the WRA to the degree possible:
 - i. Restore disturbed soils to original or higher level of porosity to regain infiltration and storm water storage capacity.
 - ii. 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.
 - iii. Incorporate storm water management in road rights-of-way.
 - iv. Landscape with rain gardens to provide on-lot detention, filtering of rainwater, and ground water recharge.
 - v. Use multi-functional open drainage systems in lieu of conventional curb-andgutter systems.

- vi. Use green roofs for runoff reduction, energy savings, improved air quality, and enhanced aesthetics.
- vii. Retain rooftop runoff in a rain barrel for later on-lot use in lawn and garden watering.
- viii. Disconnect downspouts from roofs and direct the flow to vegetated infiltration/filtration areas such as rain garden.
- ix. Use pervious paving materials for driveways, parking lots, sidewalks, patios and walkways.
- x. 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.
- xi. Use shared driveways.
- xii. Reduce width of residential streets and driveways, especially at WRA crossings.
- xiii. Reduce street length, primarily in residential areas, by encouraging clustering.
- xiv. Reduce cul-de-sac radii and use pervious and/or vegetated islands in center to minimize impervious surfaces.
- xv. Use previously developed areas (PDAs) when given an option of developing PDA versus non-PDA land.
- xvi. Consider multi-story construction over a bigger footprint.

The proposed setback will follow habitat friendly development practices where suitable.

CDC Chapter 30.090 Mitigation Plan

See Section 3.0 which details the preparation and planning of the onsite mitigation of the WRA. Additionally, refer to Figure 6 for location of planned mitigation areas.

CDC Chapter 30.100 Re-Vegetation Plan Requirements

See Sections 3.1 and 3.2 which detail the re-vegetation preparation and planting plan of native species within the WRA. Additionally, refer to Table 3-1 which details the species to be planted for mitigation, along with the species' zone, type, space, size class and quantity.

CDC Chapter 30.110 Hardship Provisions

The purpose of this section is to ensure that compliance with this chapter does not deprive an owner of reasonable use of land. To avoid such instances, the requirements of this chapter may be reduced. The decision-making authority may impose such conditions as are deemed necessary to limit any adverse impacts that may result from granting relief. The burden shall be on the applicant to demonstrate that the standards of this chapter, including Table 32-2, Required Width of WRA, will deny the applicant "reasonable use" of his/her property.

According to West Linn's WRA Map, a riparian corridor and its 100-foot buffer encompasses all of Tax Lot 100 and the majority of Tax Lot 200. The width of the WRA would deprive the property owner of reasonable land use, as it would currently not allow any development within the 100-foot buffer, thus the

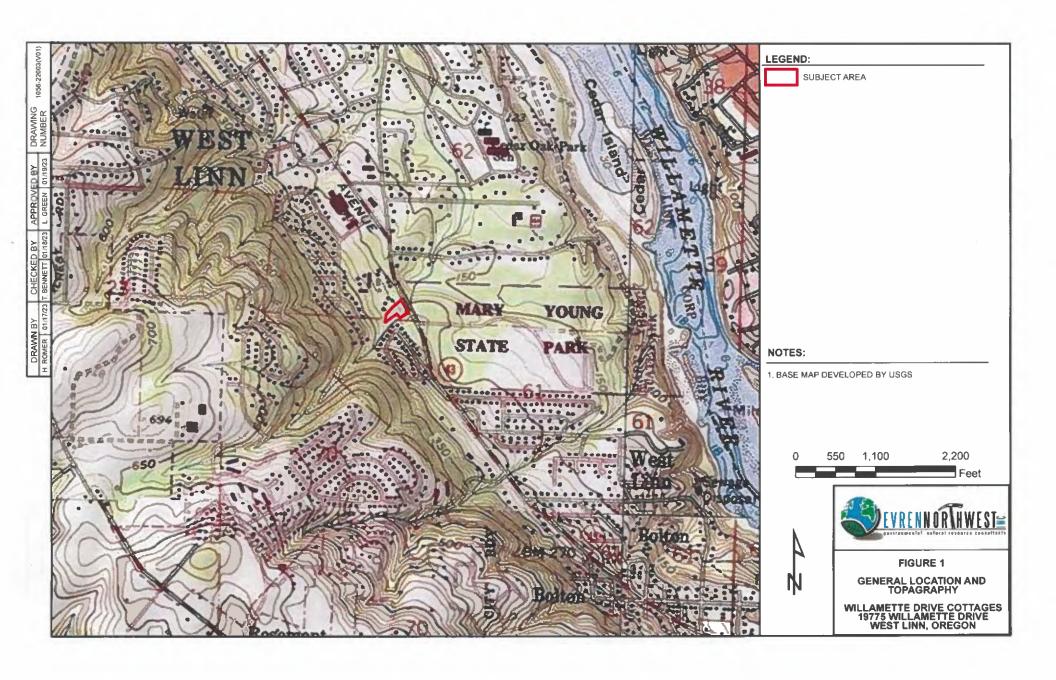
Chapter 30.110 Hardship Provision was applied to these two northern tax lots. A MDA was calculated using the greater of 30 percent of the total area of the WRA on site (Section 30.110.B), which is equal to 10,078 SF of development out of the total WRA of 33,592 SF.

The proposed WRA reduction will be 40 feet from the stream on the south side, where stream restoration will occur. Although the proposed WRA will be smaller in size, it will continue to provide the same, if not better, support for a thriving ecosystem post mitigation and restoration. Currently, the majority of vegetation within the WRA is invasive which limits species diversity and functional habitat within the WRA.

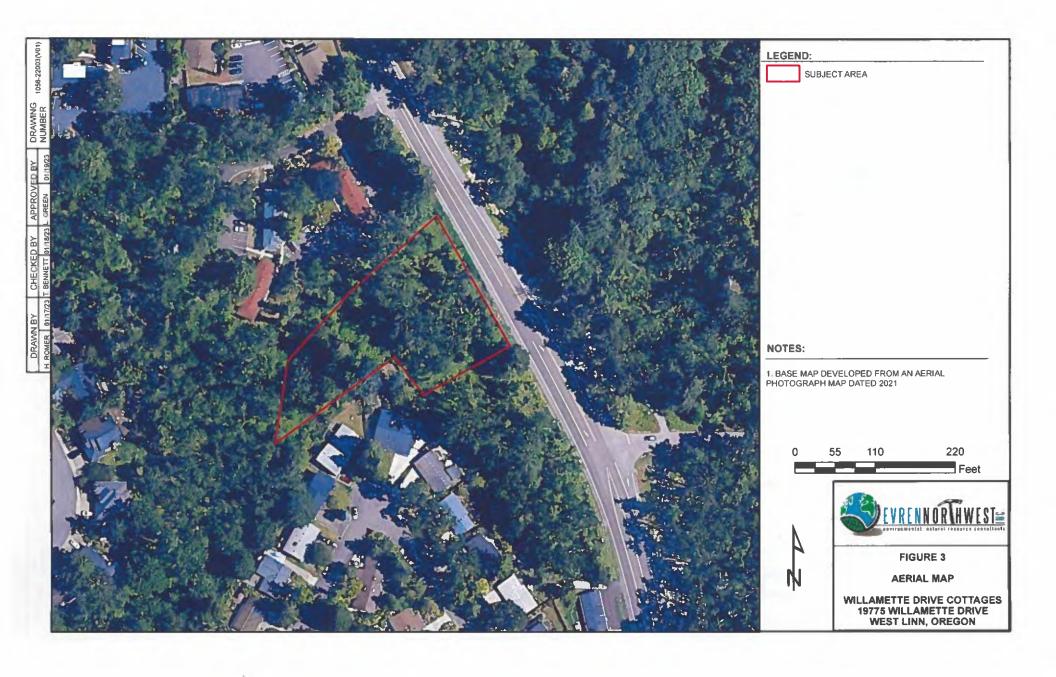
5.0 Limitations

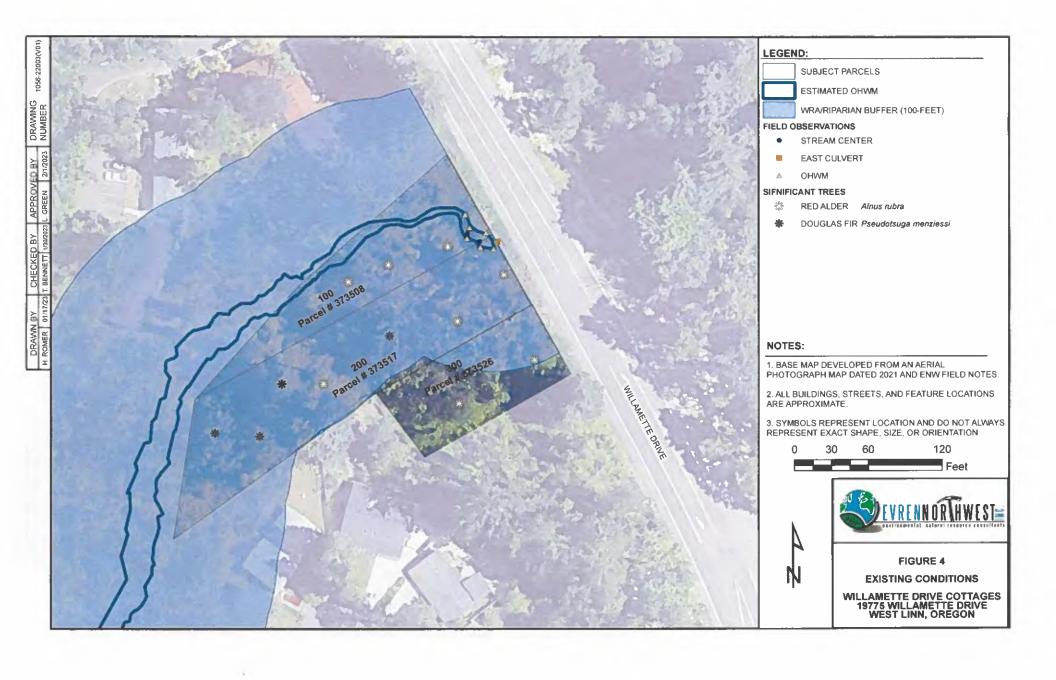
The scope of this report is limited to observations made during on-site work; interviews with knowledgeable sources; and review of readily available published and unpublished reports and literature. As a result, these conclusions are based on information supplied by others as well as interpretations by qualified parties.

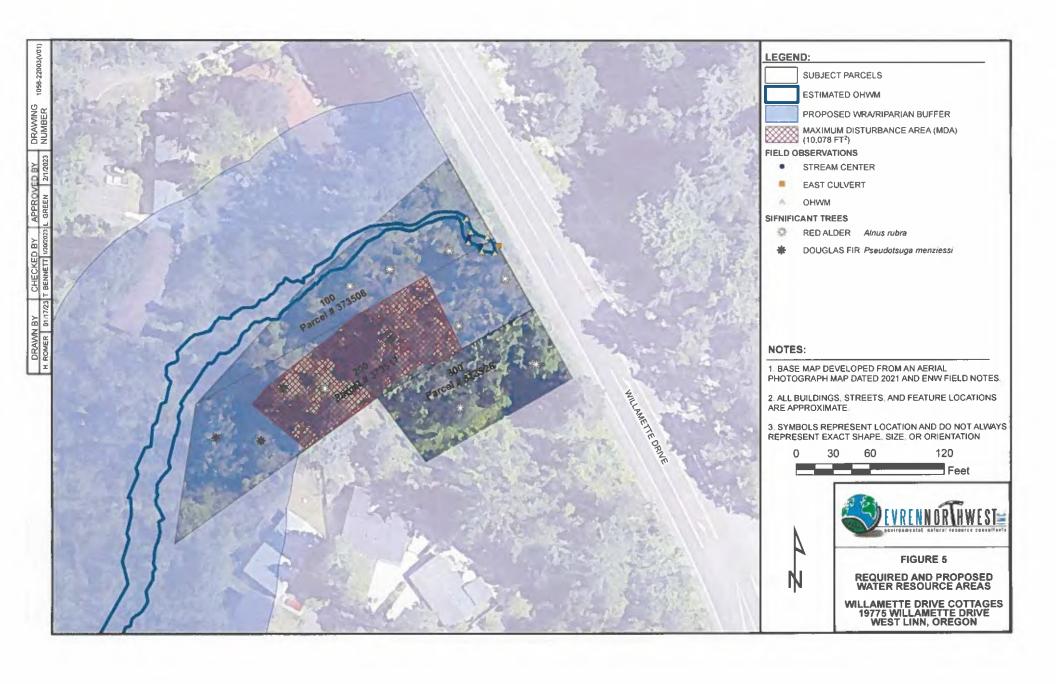
We have performed our services for this project in accordance with our agreement and understanding with the Client. This document and the information contained herein have been prepared solely for the use of the Client.

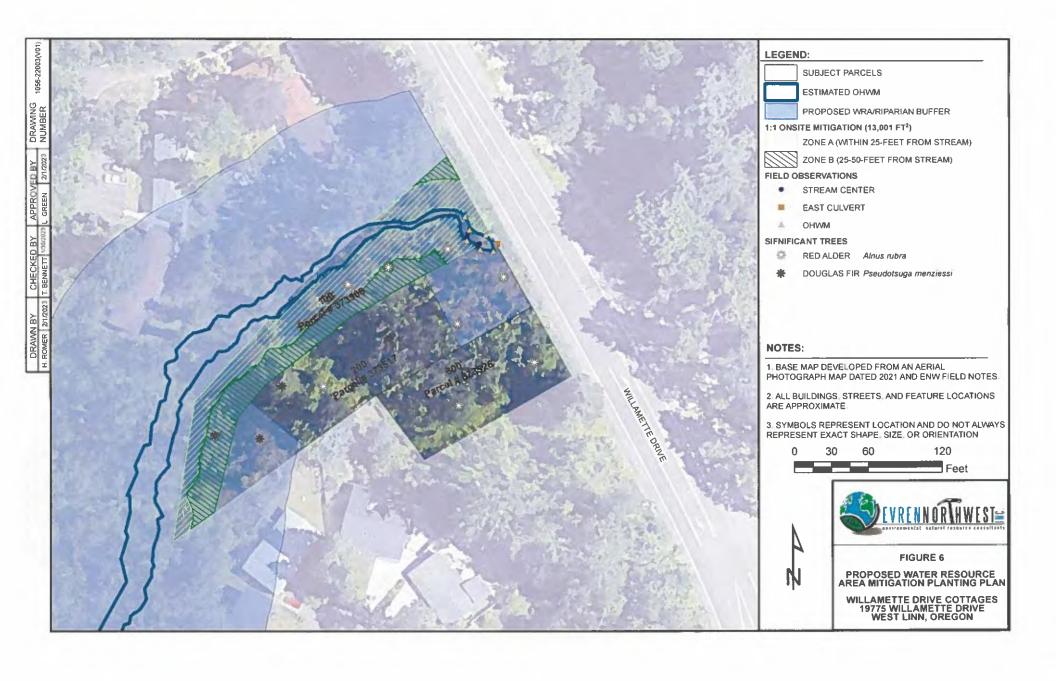












Appendix A Site Photographs



View facing northwest at the subject site from Willamette Drive.



Invasive species covering onsite stream.



Invasive species and ordinary high water mark observed in the east of the site.



Culvert at eastern site margin. View facing south.



Vacant Property 19775 Willamette Drive West Linn, Oregon

Site Photographs

Project No. 1056-22003-01 Appendix A

WILLAMETTE DRIVE COTTAGES



PROJECT INFORMATION APPLICABLE CODES VICINITY MAP (NTS) SHEET INDEX PROJECT DIRECTORY **OWNER:** ---OSCC OREGON STRUCTURAL PARCEL / TAX LOT NUMBERS: SITE PLAN A1.00 WILLAMETTE DRIVE COTTAGES, LLC **BOUNDARY MAPS** 19775, 19885, 19905, 19915, 19925, 19945, 19975 A1.01 SPECIALTY CODE 2019 ASHRAE 90.1 2016 SITE SECTIONS A2.00 SITE ADDRESS: 19975 WILLAMETTE DRIVE, WEST OSPC 2019 SITE AXONOMETRIC A3.00 **ARCHITECT OF RECORD:** LINN, OREGON SITE AXONOMETRIC ICC A117.1 2017 A3.10 ARIATOUCH LLC **COTTAGE CLUSTER 1** A4.01 COTTAGE CLUSTER 2 SITE AREA: 1.87 AC A4.02 COTTAGE CLUSTER 3 A4.03 -- CHOW MEIN-COTTAGE CLUSTER 4 LOCAL JURISDICTIONS: A4.04 CITY OF WEST LINN **CIVIL ENGINEER:** KEY PERSPECTIVE A6.00 TM RIPPEY CONSULTING ENGINEERS, INC DEFERRED SUBMITTALS: 7650 SW BEVELAND RD, SUITE 100 TIGARD, OR 97223 -THIS PROJECT MECHANICAL-HVAC ATTN: CHRISTOPHER DESLAURIERS, PE MECHANICAL-PLUMBING T: 503-443-3900 F: 503-443-3700 ELECTRICAL PRESCRIPTIVE ENVELOPE REQUIREMENTS PER **SURVEYOR:** OSCC ANDY PARIS & ASSOCIATES TABLE N1101.1(1) 15450 BOONES FERRY ROAD, SUITE 7 LAKE OSWEGO, OR 97035 WALL INSULATION - ABOVE GRADE: R-21 ATTN: BRIAN LEGGS, PLS INTERMEDIATE MIN T: 503-635-3341 WALL INSULATION BELOW GRADE: R-15/R-21 MIN FLAT CEIILNGS: R-49 MIN MOHAWK WAY WAULTED CEILINGS: R-30(RAFTERS)MIN STRUCTURAL ENGINEER: UNDERFLOORS: R-30 MIN SLAB EDGE PERIMETER: R-15/R-21 MIN WINDOWS: U-0.30 MAX MEP ENGINEER:

ARCHITECT - CHRISTOPHER STAGGS AIA, NCARB, LEED AP

502 MAIN STREET, OREGON, 97045

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SKYLIGHTS: U-0.50 MAX



SEPTEMBER 24, 2024

25 (21 2BD & 4 3BD) CC1: 6 HOMES, (2) 3BD, (4) 2BD; (6) PARK CC2: 6 HOMES, (1) 3BD, (5) 2BD; (6) PARK CC3: 6 HOMES, (0) 3BD, (6) 2BD; (6) PARK CC4: 7 HOMES, (1) 3BD, (6) 2BD; (7) PARK 1.87 NUMBER OF HOMES: SITE AREA:

NOTES

900 1 1600 -4200°2, 19886 Od Will 19872 32.52 E 4000 2 .59.65 Sty. 19856 50,



PROJECT:

WILLAMETTE DRIVE COTTAGES

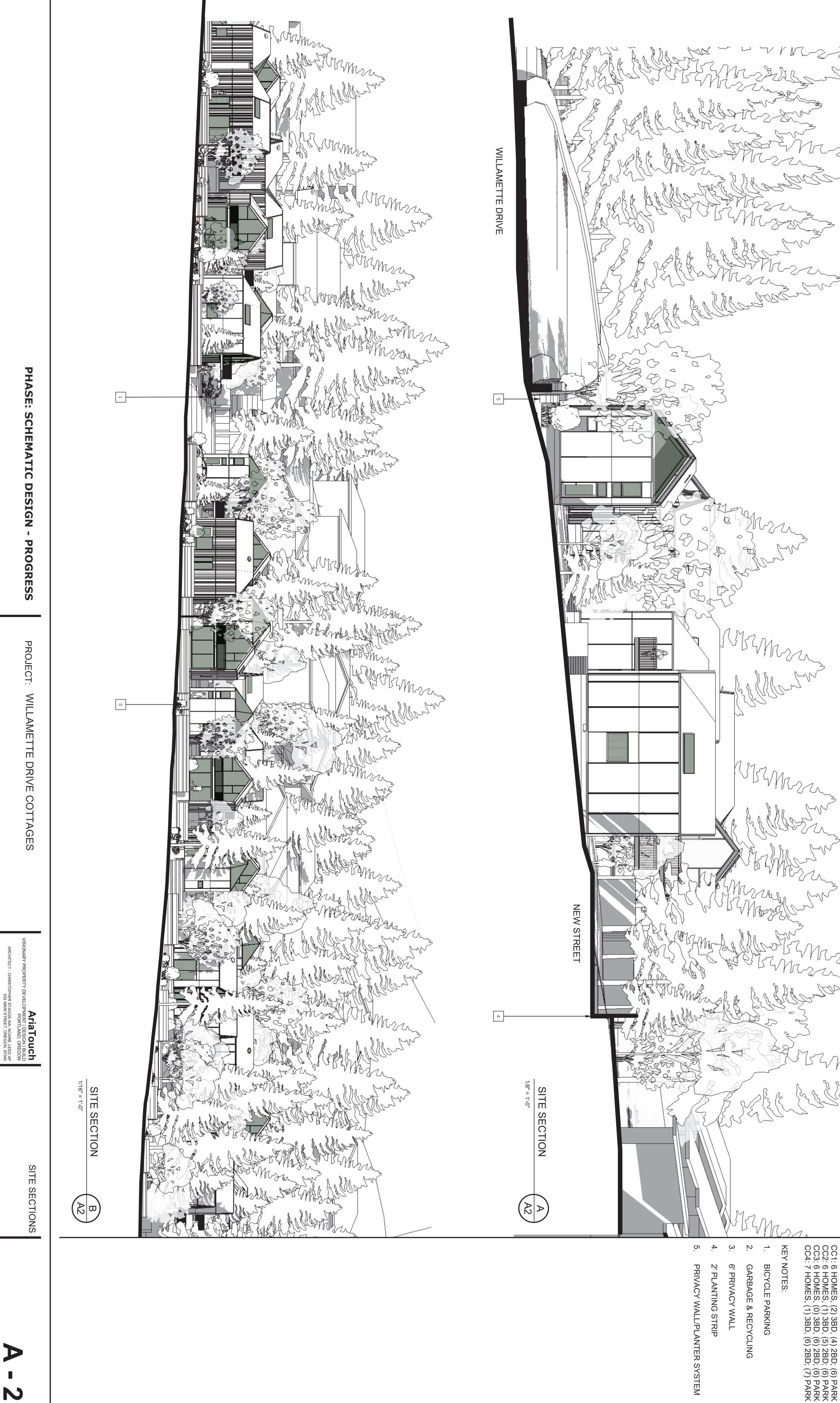
AriaTouch HER STAGGS AIA, NCARB, LEED AP 502 MAIN STREET, OREGON, 97045

BOUNDARY MAPS

SEPTEMBER 24, 2024

BOUNDARY MAP
1" = 50'-0"

- PROGRESS PHASE: SCHEMATIC DESIGN



NUMBER OF HOMES:

25 (21 2BD & 4 3BD)

SITE AREA:

1.87 AC

NOTES

SEPTEMBER 24, 2024



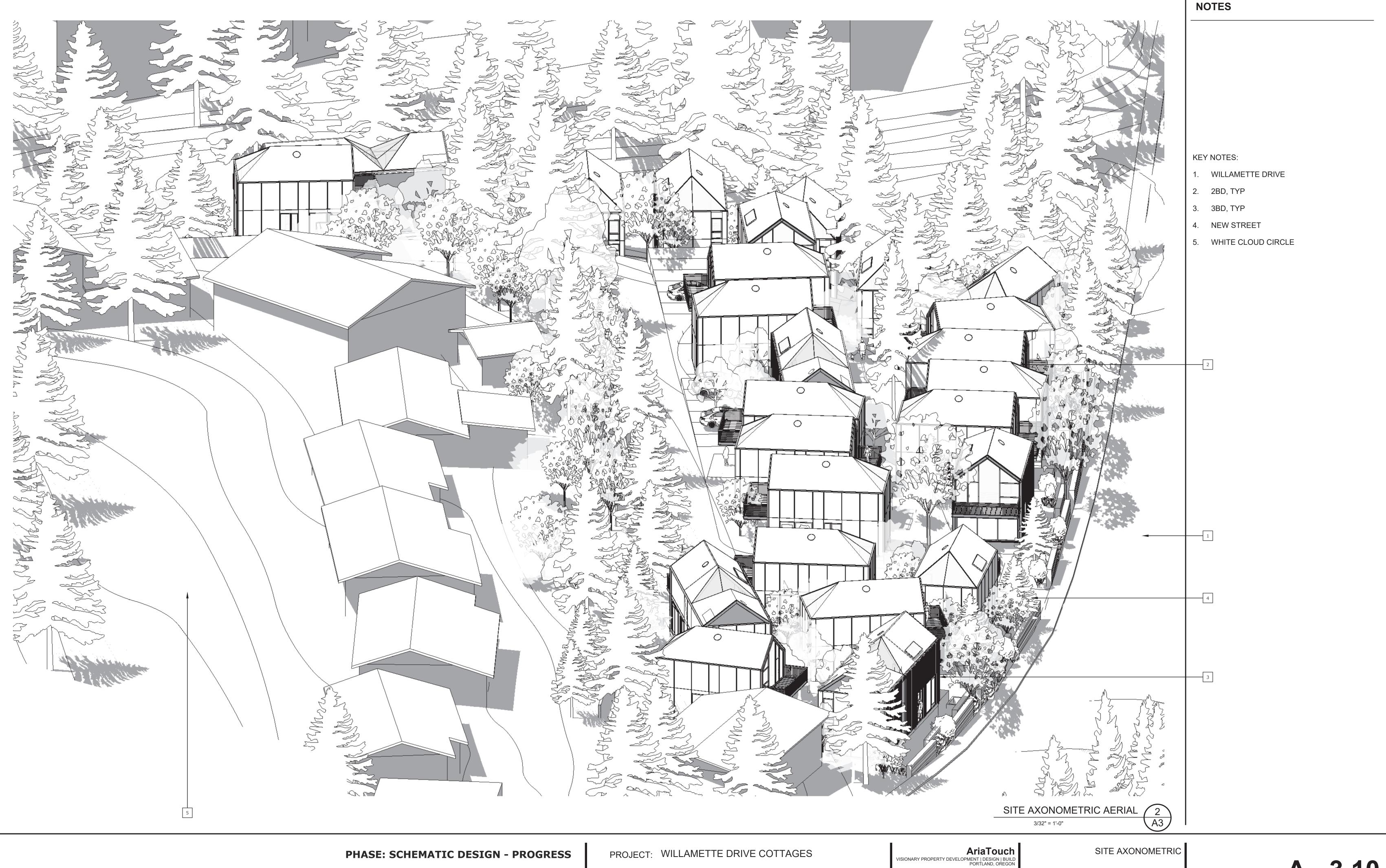
- 1. WILLAMETTE DRIVE
- 2. 2BD, TYP
- 3. 3BD, TYP
- 4. NEW STREET
- 5. WHITE CLOUD CIRCLE



SITE AXONOMETRIC AERIAL / (A3) 3/32" = 1'-0"

AriaTouch
VISIONARY PROPERTY DEVELOPMENT | DESIGN | BUILD
PORTLAND, OREGON

ARCHITECT - CHRISTOPHER STAGGS AIA, NCARB, LEED AP 502 MAIN STREET, OREGON, 97045



ARCHITECT - CHRISTOPHER STAGGS AIA, NCARB, LEED AP 502 MAIN STREET, OREGON, 97045



SITE AREA:

1.87 AC

NUMBER OF HOMES: 25 (21 2BD & 4 3BD)

CC1: 6 HOMES, (2) 3BD, (4) 2BD; (6) PARK CC2: 6 HOMES, (1) 3BD, (5) 2BD; (6) PARK CC3: 6 HOMES, (0) 3BD, (6) 2BD; (6) PARK CC4: 7 HOMES, (1) 3BD, (6) 2BD; (7) PARK

KEY NOTES:

- 1. BICYCLE PARKING
- 2. GARBAGE & RECYCLING
- 3. 6' PRIVACY WALL
- 4. 2' PLANTING STRIP
- 5. PRIVACY WALL/PLANTER SYSTEM



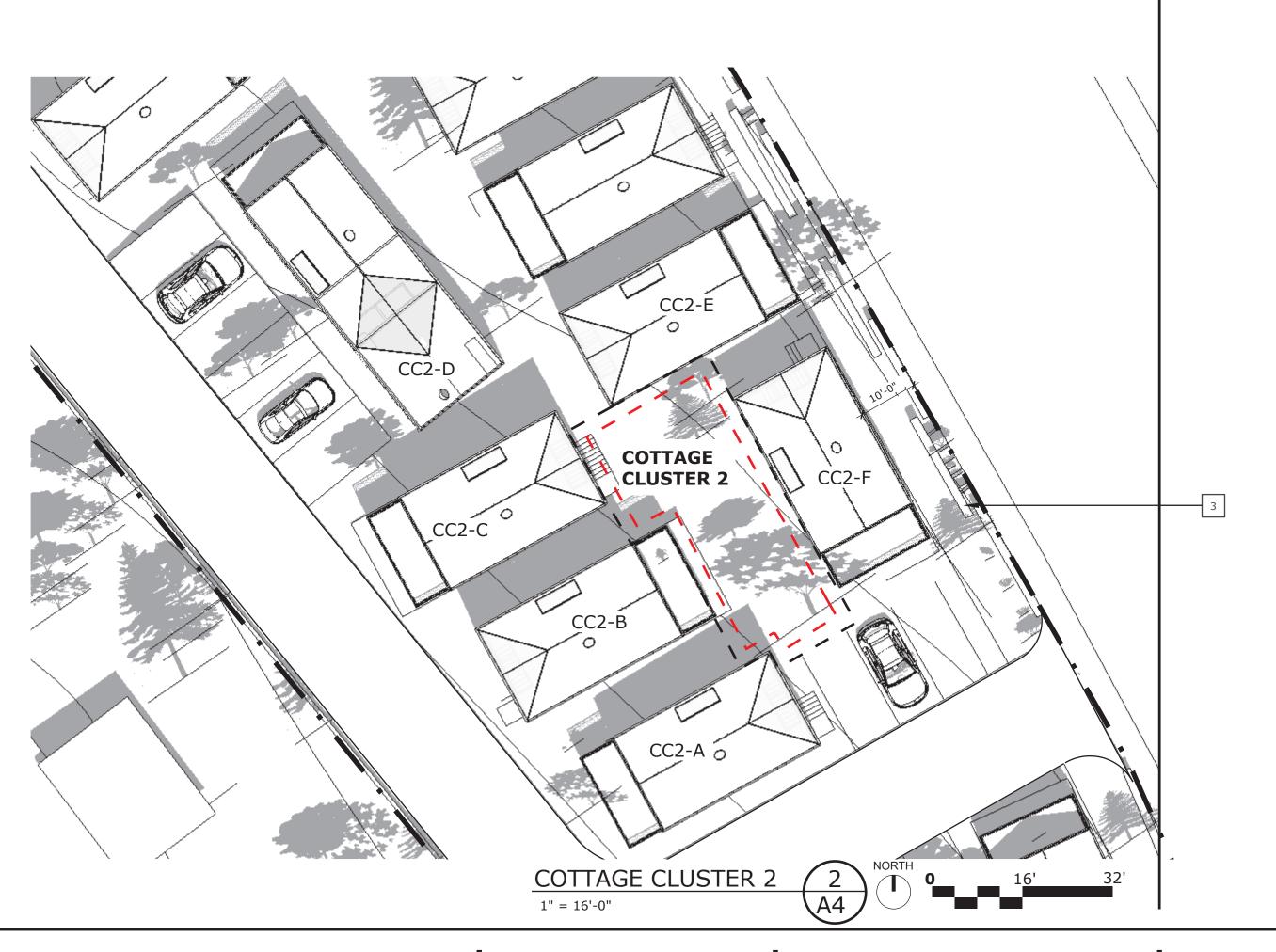
COMMUNAL COURTYARD

COURTYARD REQUIREMENTS:

MIN 150 SF COMMUNAL COURTYARD REQ'D PER COTTAGE

6 HOMES @ 150 SF PER HOME = 900 SF MIN PER CLUSTER

CC2 COMMUNAL CTYD SPACE: 919 SF



SITE AREA:

1.87 AC

NUMBER OF HOMES: 25 (21 2BD & 4 3BD)

CC1: 6 HOMES, (2) 3BD, (4) 2BD; (6) PARK CC2: 6 HOMES, (1) 3BD, (5) 2BD; (6) PARK CC3: 6 HOMES, (0) 3BD, (6) 2BD; (6) PARK CC4: 7 HOMES, (1) 3BD, (6) 2BD; (7) PARK

KEY NOTES:

- 1. BICYCLE PARKING
- 2. GARBAGE & RECYCLING
- 3. 6' PRIVACY WALL
- 4. 2' PLANTING STRIP
- 5. PRIVACY WALL/PLANTER SYSTEM



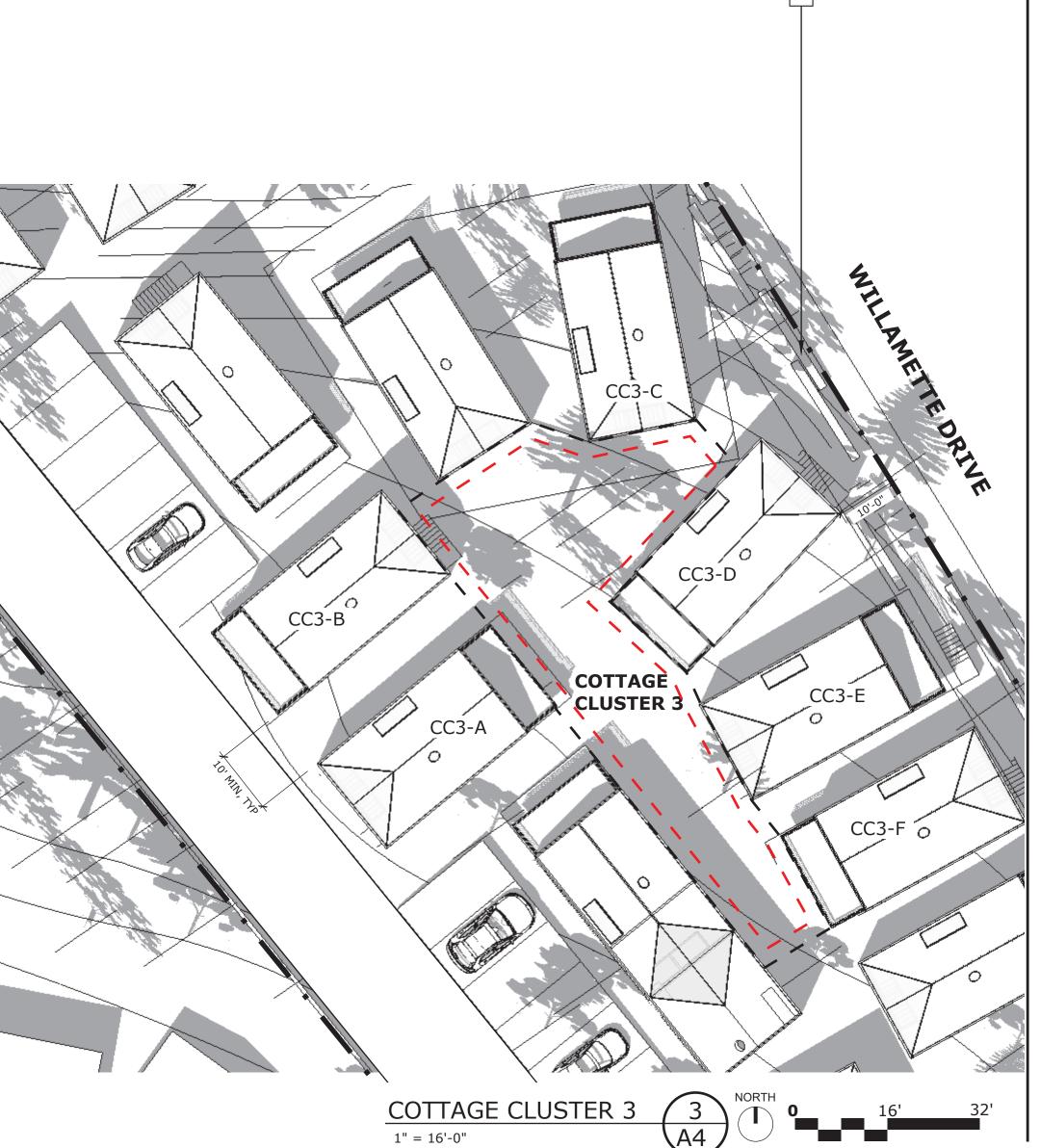
COMMUNAL COURTYARD

COURTYARD REQUIREMENTS:

MIN 150 SF COMMUNAL COURTYARD REQ'D PER COTTAGE

6 HOMES @ 150 SF PER HOME = 900 SF MIN PER CLUSTER

CC3 COMMUNAL CTYD SPACE: 1796 SF





SITE AREA: 1.87 AC

NUMBER OF HOMES: 25 (21 2BD & 4 3BD)

CC1: 6 HOMES, (2) 3BD, (4) 2BD; (6) PARK CC2: 6 HOMES, (1) 3BD, (5) 2BD; (6) PARK CC3: 6 HOMES, (0) 3BD, (6) 2BD; (6) PARK CC4: 7 HOMES, (1) 3BD, (6) 2BD; (7) PARK

KEY NOTES:

- 1. BICYCLE PARKING
- 2. GARBAGE & RECYCLING
- 3. 6' PRIVACY WALL
- 4. 2' PLANTING STRIP
- 5. PRIVACY WALL/PLANTER SYSTEM



COMMUNAL COURTYARD

COURTYARD REQUIREMENTS:

MIN 150 SF COMMUNAL COURTYARD REQ'D PER COTTAGE

7 HOMES @ 150 SF PER HOME = 1050 SF MIN COR COTTAGE CLUSTER 4

CC4 COMMUNAL CTYD SPACE: 4029 SF



SITE AREA:

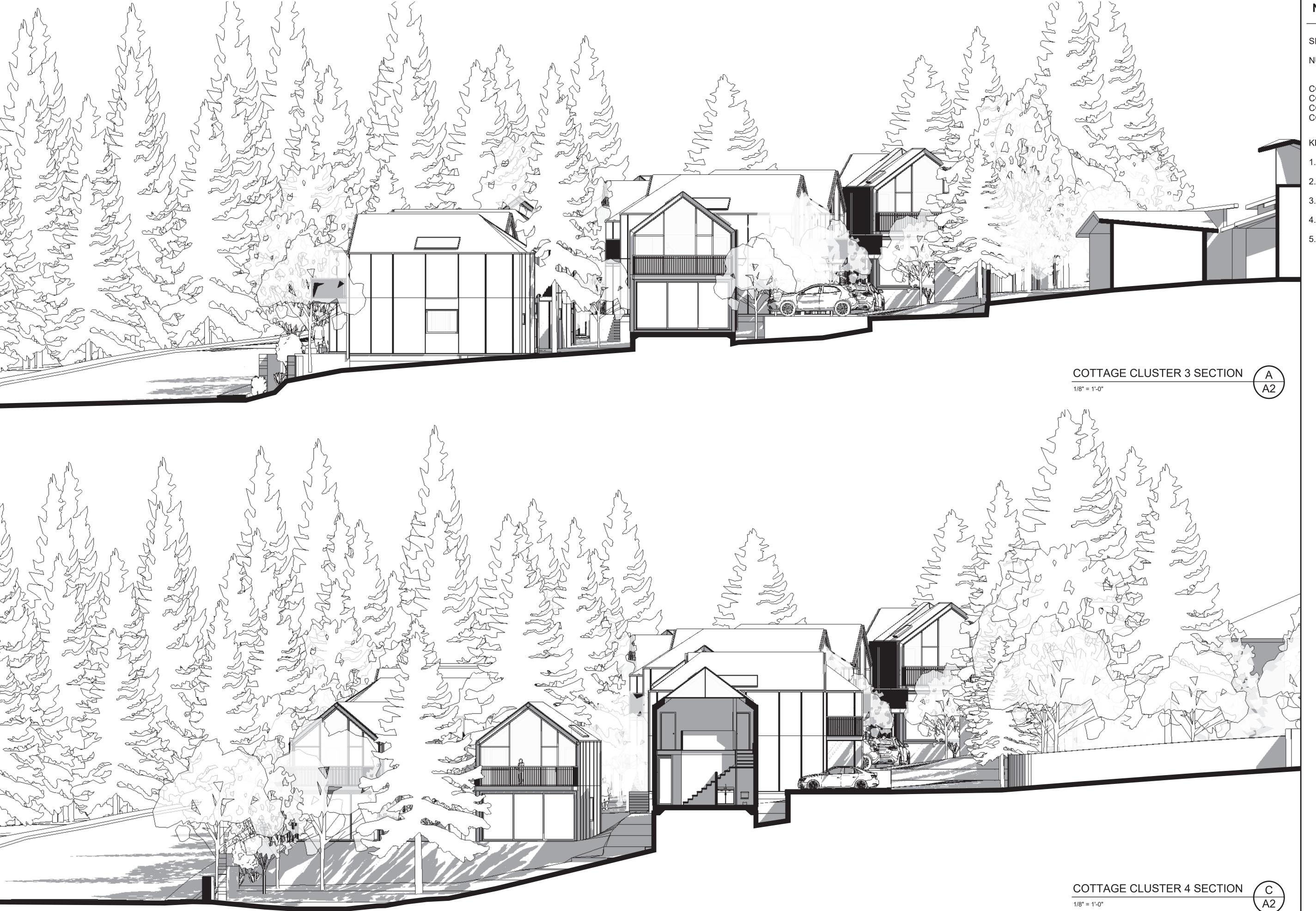
NUMBER OF HOMES: 25 (21 2BD & 4 3BD)

1.87 AC

CC1: 6 HOMES, (2) 3BD, (4) 2BD; (6) PARK CC2: 6 HOMES, (1) 3BD, (5) 2BD; (6) PARK CC3: 6 HOMES, (0) 3BD, (6) 2BD; (6) PARK CC4: 7 HOMES, (1) 3BD, (5) 2BD; (7) PARK

KEY NOTES:

- 1. BICYCLE PARKING
- 2. GARBAGE & RECYCLING
- 3. 6' PRIVACY WALL
- 4. 2' PLANTING STRIP
- 5. PRIVACY WALL/PLANTER SYSTEM



SITE AREA: 1.87 AC

NUMBER OF HOMES: 25 (21 2BD & 4 3BD)

CC1: 6 HOMES, (2) 3BD, (4) 2BD; (6) PARK CC2: 6 HOMES, (1) 3BD, (5) 2BD; (6) PARK CC3: 6 HOMES, (0) 3BD, (6) 2BD; (6) PARK CC4: 7 HOMES, (1) 3BD, (5) 2BD; (7) PARK

KEY NOTES:

- 1. BICYCLE PARKING
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- 3. 6' PRIVACY WALL
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- 5. PRIVACY WALL/PLANTER SYSTEM



