Exhibit A

City of West Linn

Planning & Development • 22500 Salamo Rd #1000 • West Linn, Oregon 97068
Telephone 503.656-3535 • westlinnoregon.gov

DEVELOPMENT REVIEW APPLICATION

For Office Use Only		
STAFF CONTACT Ben Gardner	PROJECT NO(S). DR-23-10/FMA-23-04	PRE-APPLICATION NO. waived
NON-REFUNDABLE FEE(S)	REFUNDABLE DEPOSIT(S)	TOTAL $0

Type of Review (Please check all that apply):

- ☐ Annexation (ANX)
- ☐ Appeal (AP)
- ☐ CDC Amendment (CDC)
- ☐ Code Interpretation (MISC)
- ☐ Conditional Use (CUP)
- ☑ Design Review (DR
- ☐ Tree Easement Vacation (MISC)
- ☐ Expediated Land Division (ELD)
- ☐ Extension of Approval (EXT)
- ☐ Final Plat (FP)
- ☑ Flood Management Area (FMA)
- ☐ Historic Review (HDR)
- ☐ Lot Line Adjustment (LLA)
- ☐ Minor Partition (MIP)
- ☐ Modification of Approval (MOD)
- ☐ Non-Conforming Lots, Uses & Structures
- ☐ Planned Unit Development (PUD)
- ☐ Street Vacation
- ☐ Subdivision (SUB)
- ☐ Temporary Uses (MISC)
- ☐ Time Extension (EXT)
- ☐ Right of Way Vacation (VAC)
- ☐ Variance (VAR)
- ☐ Water Resource Area Protection/Single Lot (WAP)
- ☐ Water Resource Area Protection/Wetland (WAP)
- ☐ Willamette & Tualatin River Greenway (WRG)
- ☐ Zone Change (ZC)

Pre-Application, Home Occupation, Sidewalk Use, Addressing, and Sign applications require different forms, available on the website.

Site Location/Address: 5785 River Street, West Linn, OR 97068

Assessor's Map No.: 22E30BD
Tax Lot(s): 800
Total Land Area: 9.17 acres

Brief Description of Proposal:
Replace existing Maddax Woods Park gravel driveway and parking area with pervious paving, matching existing dimensions & grades

Applicant Name*: City of West Linn Parks and Recreation, Attn: Ken Warner, Director
Address:
City State Zip: 22500 Salamo Road
West Linn, OR 97068
Phone: (503) 742-6047
Email: kwarner@westlinnoregon.gov

Owner Name (required): City of West Linn
Address: 22500 Salamo Road
City State Zip: West Linn, OR 97068
Phone: (503) 742-6047
Email: kwarner@westlinnoregon.gov

Consultant Name: Mackenzie, Att: Brian Varricchione
Address:
City State Zip: 1515 SE Water Avenue, Sutie 100
Portland, OR 97214
Phone: (971) 346-3742
Email: bvarricchione@mcknze.com

1. Application fees are non-refundable (excluding deposit). Applications with deposits will be billed monthly for time and materials above the initial deposit. ***The applicant is financially responsible for all permit costs.**
2. The owner/applicant or their representative should attend all public hearings.
3. A decision may be reversed on appeal. The decision will become effective once the appeal period has expired.
4. Submit this form, application narrative, and all supporting documents as a single PDF through the Submit a Land Use Application web page: https://westlinnoregon.gov/planning/submit-land-use-application

The undersigned property owner authorizes the application and grants city staff the **right of entry** onto the property to review the application. Applications with deposits will be billed monthly for time and materials incurred above the initial deposit. The applicant agrees to pay additional billable charges.

Applicant's signature — Date: 10/11/2023

X Owner's signature ***(required)*** — Date: 10/11/23

DEVELOPMENT REVIEW CHECKLIST

The application form and supporting materials should be submitted electronically through https://westlinnoregon.gov/planning/submit-land-use-application **as one (1) .pdf file**. To create a single PDF file, go to Adobe Acrobat Free Merge PDF online tool. Other free Acrobat PDF tools like converting a file to PDF or reducing the file size are available on the Adobe website.

Supporting reports may be uploaded separately through this web form *if* the file size is too large. The separate submissions should be numbered (i.e., Submittal 1 of 2) and noted under transmittal contents. All plan set files MUST be flattened and reduced.

Submission requirement to upload through the web form:

- .pdf format.
- Individual file size no larger than 128 MB.
- Do not attach 'zip' files. Our server will reject all 'zip' files.
- Reduce and flatten all plan sets BEFORE uploading plan sets. The raster/vector settings should be optimized for printing.

A complete application must include the following:

- ☑ Development Review Application. Original signatures from all owners must be on the application form. **Do NOT use DocuSign.**
- ☑ A **project narrative** outlining the project's scope in detail, including the changes to the site, structure, landscaping, parking, land use, and lot consolidations.
- ☑ Complete written responses to identified approval criteria in the Community Development Code (CDC).
- ☑ A Service Provider Letter from Tualatin Valley Fire and Rescue - https://www.tvfr.com/399/Service-Provider-Permit Please contact Jason Arn at jason.arn@tvfr.com with any questions about TVF&R requirements.
- ☑ Vicinity Map showing the site within the City.
- ☑ Site Plan drawn to scale showing the:
    - Taxlot and address of the project,
    - Area of the site (acres or square feet),
    - Zoning and Neighborhood Association,
    - Location and dimensions of existing and proposed buildings, structures,
    - Location of existing and proposed on-site driveways and off-street parking,
    - Configuration and dimensions of all existing and proposed lots and tracts, including a proposed park, open space, and or drainage tracts or easements,
    - Location and width of existing and proposed easement for access, drainage, etc., and
    - Location of existing and proposed trees and other proposed landscaping.
    - Location of existing public and private utilities, easements, and 100-year floodplain,
    - Sensitive areas, including the location of on-site wetlands and riparian areas,
    - Location of existing off-site driveways across the street,
    - If applicable, internal circulation system, name, and location of existing and proposed roadways and roadway easements (private and public), and
    - Location and width of existing and proposed on-site pedestrian and bicycle facilities on-site.
- ☐ If applicable, a Utility Plan and Landscape plan, drawn to scale.
  If applicable, Building elevation drawings with exterior elevations for every side of each structure, height including building materials and floor levels, drawn to scale.
  If required, documentation of any required meeting with the respective City-recognized neighborhood association per CDC 99.038.
- ☐ Any other materials identified by city staff at the pre-application meeting.

For applications that the Planning Commission decides, the applicant or applicant's representative should present their proposal to the PC at the public hearing.

MACKENZIE.

CLASS I PARKS AND NATURAL AREA DESIGN REVIEW AND FLOOD MANAGEMENT AREA PERMIT

To
City of West Linn

For
Maddax Woods Park

Dated
October 12, 2023

Project Number
2190399.01

MACKENZIE
Since 1960

RiverEast Center | 1515 SE Water Ave, Suite 100, Portland, OR 97214
PO Box 14310, Portland, OR 97293 | T 503.224.9560 | www.mcknze.com

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E. City of West Linn Water Resources Map
F. Wetlands and Waterways Map
G. Floodplain Map
H. Utility Map
I. FEMA Firmette
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K. Wetland Delineation Report
L. Oregon Department of State Lands Wetland Delineation Approval
M. Floodplain Cut-Fill Analysis
N. Preliminary Stormwater Report
O. Arborist Letter
P. Tualatin Valley Fire & Rescue Service Provider Permit

I. PROJECT SUMMARY

Applicant:	City of West Linn Parks and Recreation Attention: Ken Warner, Director 22500 Salamo Road West Linn, OR 97068 (503) 742-6047 Ken Warner (kwarner@westlinnoregon.gov)
Property Owner:	City of West Linn 22500 Salamo Road West Linn, OR 97068 (503) 742-6047 Ken Warner (kwarner@westlinnoregon.gov)
Contact Person:	Mackenzie Attention: Brian Varricchione 1515 SE Water Avenue, Suite 100 Portland, OR 97214 971-346-3742 bvarricchione@mcknze.com
Site Address:	5785 River Street West Linn, OR 97068
Assessor Site Acreage:	9.17 acres
Tax Map/Lot:	Clackamas County Assessor Tax Lot 22E30BD00800
Zoning:	Single-Family Residential Detached (R-10)
Comprehensive Plan:	Low Density
Adjacent Zoning:	R-10 to the north, west, south, and east; Single-Family Residential Detached (R-20) to the northeast (Willamette River islands).
Existing Structures:	Caretaker residence, retaining walls, wood deck, canoe launch, foundation from former boat barn.
Request:	Class I Parks and Natural Area Design Review and Flood Management Area permit for construction of parking improvements at Maddax Woods Park.

II. INTRODUCTION

Description of Request

This application package includes narrative, plans, and additional documentation in support of proposed parking improvements at the west end of River Street in Maddax Woods Park.

Based on coordination with Planning staff, the project requires approvals through Class I Parks and Natural Area Design Review and Flood Management Area permit processes. This application requests consolidated review and approval of both requests.

Site and Surrounding Land Use

The site, Maddax Woods Park, consists of a single parcel at the west end of River Street, identified as Clackamas County Tax Lot 22E30BD00800. See Figure 1 and Exhibit C. The site is located in the Bolton Neighborhood Association area. The site is bounded to the north by Burnside Park and the Willamette River, to the east by single-family residences and the River Street sewage pump station, to the south by single-family residences and the West Linn Public Library, and to the west by single-family residences. The site is in the R-10 Single-Family Residential Detached zone. The Community Development Code (CDC) classifies parks as permitted community recreation uses in the R-10 zone.

Figure 1: Site Arial Photo

The eastern portion of the site is traversed by a stream (Maddax Creek) flowing generally from the southeast to the northwest a short distance from its confluence with the Willamette River. There are also two drainage ditches/tributaries that flow from west to east through the site before combining in a single pipe that discharges to Maddax Creek.

A significant portion of the property is within the 100-year floodplain as defined by the Federal Emergency Management Agency (FEMA) and the approximate limits of the 1996 flood (see Exhibit G). The City regulates this area with its Flood Management Area overlay zone. The Willamette River and Maddax Creek have both been identified as significant Goal 5 resources by the City and are consequently subject to the City's Water Resource Area (WRA) provisions. The majority of the site has been classified by the City and Metro as Habitat Conservation Area (HCA) along the Willamette River Greenway. See Exhibit E.

As illustrated in Exhibit F, the site has a small wetland located west of the driveway and a second wetland farther west. The applicant's natural resources consultant has delineated the boundaries of the wetlands

and waterways (see Exhibit K). The Oregon Department of State Lands (DSL) approved the wetland delineation following subsequent refinement by the consultant (see revised Figure 6 in Exhibit L).

Portions of the property have been identified as slide areas by the Oregon Department of Geology and Mineral Industries (Exhibit D).

Proposed Development

The proposed development consists solely of replacing the existing gravel driveway and parking area (much of which is outside the site boundaries and instead within the River Street right-of-way) with permeable paving. To the extent possible, development will be limited to previously disturbed areas to minimize impacts on sensitive natural resources; the size of the driveway and parking area is not proposed to increase. The new surfacing will improve the ability of visitors to safely and conveniently park on site, while the choice of material limits stormwater impacts as rainfall will continue to be able to percolate into the ground following the project.

No off-site improvements to water, sanitary sewer, or storm sewer are necessary to serve the proposed driveway and parking improvements.

No regulated trees are proposed to be removed to accommodate the construction. A 22" cottonwood tree is proposed for removal at the west end of the driveway improvements.

Based on the scope of the project and the site's location, two land use approvals are necessary:

- Class I Parks and Natural Area Design Review
- Flood Management Area Permit

III. NARRATIVE & COMPLIANCE

Development applications are required to meet development standards set forth in the West Linn Community Development Code (CDC). The following addresses the specified approval criteria and development guidelines and standards that apply to this application. In the sections below, code language is shown in *italics,* while responses are shown in normal font.

Chapter 11 Single Family Residential Detached, R-10

11.030 Permitted Uses

The following are uses permitted outright in this zoning district:

4. Community recreation.

Response: The existing park facility will remain in place and falls within the definition of "community recreation." The park is therefore a permitted use in the R-10 zone. The proposed driveway and parking improvements will not change the category of use to a non-recreation use. This standard is 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:

Standard	*Requirement*	*Additional Notes*
Minimum lot size *Average minimum lot or parcel size for a townhouse project*	*10,000 sf* *1,500 sf*	*For a single family attached or detached unit*
Minimum lot width at front lot line	*35 ft*	*Does not apply to townhouses or cottage clusters*
Average minimum lot width	*50 ft*	*Does not apply to townhouses or cottage clusters*
Minimum yard dimensions or minimum building setbacks		*Except as specified in CDC 25.070(C)(1) through (4) for the Willamette Historic District. Front, rear, and side yard setbacks in a cottage cluster project are 10 ft. There are no additional setbacks for individual structures on individual lots, but minimum distance between structures shall follow applicable building code requirements.*
Front yard	*20 ft*	*Except for steeply sloped lots where the provisions of CDC 41.010 shall apply*
Interior side yard	*7.5 ft*	*Townhouse common walls that are attached may have a 0-ft side setback.*
Street side yard	*15 ft*	
Rear yard	*20 ft*	
Maximum building height	*35 ft*	*Except for steeply sloped lots in which case the provisions of Chapter 41 CDC shall apply.*
Maximum lot coverage	*35%*	*Maximum lot coverage does not apply to cottage clusters. However, the maximum building footprint for a cottage cluster is less than 900 sf per dwelling unit.*

		▪ *This does not include detached garages, carports, or accessory structures.* ▪ *A developer may deduct up to 200 sf for an attached garage or carport.*
Minimum accessway width to lot which does not abut a street or flag lot	*15 ft*	
Maximum floor area ratio *Duplex, triplex, and quadplex*	*0.45* *0.60*	*Maximum FAR does not apply to cottage clusters.* *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.*

1. The sidewall provisions of Chapter 43 CDC shall apply.

Response: The 9.17-acre lot size satisfies the minimum area of 10,000 SF. As illustrated in Exhibit C, due to the property's location at the end of River Street, it has approximately 290 feet of street frontage, of which 50 feet corresponds to the width of River Street. The site also has approximately 38 feet of frontage on Hood Street. The lot width is a minimum of 440 feet, which exceeds the 50-foot minimum average lot width. The setbacks for the existing structure comply with the standards stated above and will not change. No new structures are proposed, so there is no change in setbacks or building height. The footprint of the existing structure totals approximately 950 square feet (SF), which equates to a lot coverage of 0.2% for the 9.17-acre lot, well below the 35% maximum. As the site abuts streets, the accessway standards do not apply. Based on the approximately 1,900 SF floor area of the existing building, the property has a 0.005 floor area ratio, well below the 0.45 maximum. The provisions of Chapter 43 are only applicable to residential construction. These standards are met.

Chapter 27 Flood Management Areas

27.020 Applicability

This chapter shall apply to all flood management areas within the jurisdiction of West Linn. 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.

A. Basis for Establishing the Special Flood Hazard Areas (SFHA). The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "Flood Insurance Study: Clackamas County, Oregon and Incorporated Areas," dated 06/2008 and revised 01/2019, FIRM Panels 41005C0018D, 41005C0019D, 41005C0038D, 41005C0257D,

41005C0259D, 41005C0260D, and 41005C0276D are hereby adopted by reference and declared to be a part of this chapter. The FIS and FIRM panels are on file at West Linn City Hall with the Community Development Department.

B. Coordination with State of Oregon Specialty Codes. Pursuant to the requirement established in ORS 455 that the City of West Linn administers and enforces the State of Oregon Specialty Codes, the City of West Linn does hereby acknowledge that the Oregon Specialty Codes contain certain provisions that apply to the design and construction of buildings and structures located in special flood hazard areas. Therefore, this chapter is intended to be administered and enforced in conjunction with the Oregon Specialty Codes.

Response: As illustrated in Exhibits G, I, and J, portions of the site are within the 1996 flood inundation area and the Special Flood Hazard Area identified on FEMA flood maps. Those areas are subject to the Flood Management Area Overlay. Since the proposed driveway and parking improvements are within the Overlay, the construction is subject to the approval criteria within this chapter. This standard is met.

27.030 Exemptions

This chapter does not apply to work necessary to protect, repair, or maintain existing public or private structures, utility facilities, roadways, driveways, accessory uses, and exterior improvements, or replace small public structures, utility facilities, or roadways in response to emergencies. Within 30 days after the work has been completed, the party responsible for the work shall initiate a flood management permit designed to analyze any changes effectuated during the emergency and mitigate adverse impacts.

Response: While the proposed driveway and parking improvements may fall within this exemption, the applicant is seeking a Flood Management Area Permit out of an abundance of caution to demonstrate that the project meets the provisions of this chapter.

27.060 Administration

A. The Planning Manager is hereby appointed to administer, implement, and enforce this chapter by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

Response: This provision provides guidance to City staff. No evidence is required by the applicant.

B. Duties of the floodplain administrator, or their designee, shall include, but not be limited to:

[detailed provisions omitted for brevity.]

Response: This provision provides procedural guidance to City staff. No evidence is required by the applicant.

C. Establishment of Development Permit.

1. A development permit shall be obtained before construction or development begins within any area horizontally within the special flood hazard area established in CDC 27.020(A). The development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in Chapter 2 CDC, including fill and other development activities.

Response: No buildings are proposed in the Special Flood Hazard Area. Grading and paving with permeable pavers is proposed within the Special Flood Hazard Area are shown on Sheet C1.10 of Exhibit J. This standard is met.

2. Application for a development permit may be made on forms furnished by the Floodplain Administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

a. *In riverine flood zones, the proposed elevation (in relation to mean sea level), of the lowest floor (including basement) and all attendant utilities of all new and substantially improved structures; in accordance with the requirements of subsection (B)(2) of this section.*

b. *Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed.*

c. *Certification by a registered professional engineer or architect licensed in the State of Oregon that the floodproofing methods proposed for any nonresidential structure meet the floodproofing criteria for nonresidential structures in CDC 27.080(C)(3).*

d. *Description of the extent to which any watercourse will be altered or relocated.*

e. *Base flood elevation data for subdivision proposals or other development when required per subsection (B) of this section and CDC 27.070(F).*

f. *Substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure.*

g. *The amount and location of any fill or excavation activities proposed.*

Response: A portion of the site is within the Special Flood Hazard Area ("100-Year" floodplain) as depicted in Exhibits G, I, and J; the applicable FEMA flood insurance rate map for this site is 41005C0276D, effective June 17, 2008 (See Exhibit I). A Flood Management Area Permit application is included with this application package.

No new building is proposed in the Special Flood Hazard Area and no watercourse alterations or relocations are proposed. The plans (Exhibit J, Sheets C1.10 and C1.20) show the area of work and Exhibit M provides information on the quantitative effects of proposed grading. This standard is met.

27.070 General Standards

In all special flood hazard areas, the following standards shall be adhered to:

A. *Alteration of Watercourses.*

1. *Require that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained. Require that maintenance is provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Require compliance with CDC 27.060(B)(3)(b) and (c).*

Response: No alteration of a watercourse is proposed as part of this development. This standard is met.

B. *Anchoring.*

1. *All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.*
2. *All manufactured dwellings shall be anchored per CDC 27.080(C)(4).*

Response: No building or structure is proposed in the Special Flood Hazard Area. This standard is not applicable.

C. *Construction Materials and Methods.*

1. *All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.*
2. *All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.*

Response: No building, structure, or mechanical equipment is proposed in the Special Flood Hazard Area. This standard is not applicable.

D. Utilities and Equipment.

1. Water Supply, Sanitary Sewer and On-Site Waste Disposal Systems.

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.

c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding consistent with the Oregon Department of Environmental Quality.

Response: As shown on Exhibit J Sheets C1.10 and C1.20, no new water supply connections or sanitary sewer systems are proposed to be located within the Special Flood Hazard Area. No on-site waste disposal system is proposed. This standard does not apply.

2. Electrical, Mechanical, Plumbing, and Other Equipment.

a. Electrical, heating, ventilating, air conditioning, plumbing, duct systems, and other equipment and service facilities shall be elevated at or above one foot above the base flood level or shall be designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during conditions of flooding. In addition, electrical, heating, ventilating, air conditioning, plumbing, duct systems, and other equipment and service facilities, if replaced as part of a substantial improvement, shall meet all the requirements of this section.

Response: As shown on Sheet C1.30 of Exhibit J, no Electrical, Mechanical, Plumbing, and Other Equipment is proposed. This standard is not applicable.

E. Tanks.

1. Underground tanks shall be anchored to prevent flotation, collapse and lateral movement under conditions of the base flood.

2. Above-ground tanks shall be installed at or above one foot above the base flood level or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood.

Response: No underground tanks or above-ground tanks are proposed. This standard is not applicable.

F. Subdivision Proposals and Other Proposed Developments.

1. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, shall include within such proposals base flood elevation data.

2. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for any land division proposal.

3. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) shall:

a. Be consistent with the need to minimize flood damage.

b. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.

c. Have adequate drainage provided to reduce exposure to flood hazards.

Response: No subdivision is proposed and no development over five acres is proposed as part of this application. This standard is not applicable.

G. Use of Other Base Flood Elevation Data.

1. When base flood elevation data has not been provided in accordance with CDC 27.020, the local floodplain administrator shall obtain, review, and reasonably utilize any base flood elevation data available from a federal, State, or other source, in order to administer this section and CDC 27.080, 27.090, and 27.100. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) must meet the requirements of subsection (F) of this section.

2. Base flood elevations shall be determined for development proposals that are five acres or more in size or are 50 lots or more, whichever is lesser, in any A zone that does not have an established base flood elevation. Development proposals located within a riverine unnumbered A zone shall be reasonably safe from flooding; the test of reasonableness includes use of historical data, high water marks, FEMA provided base level engineering data, and photographs of past flooding. When no base flood elevation data is available, the elevation requirement for development proposals within a riverine unnumbered A zone is a minimum of two feet above the highest adjacent grade, to be reasonably safe from flooding. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

Response: The use of Other Base Flood Data is not proposed as part of this application since FEMA flood data are available. This standard is not applicable.

H. Structures Located in Multiple or Partial Flood Zones. In coordination with the State of Oregon Specialty Codes:

1. When a structure is located in multiple flood zones on the community's flood insurance rate maps (FIRM) the provisions for the more restrictive flood zone shall apply.

2. When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.

Response: The site is in the Special Flood Hazard Area but no structure is proposed. This standard does not apply.

I. Balanced Cut and Fill.

1. Development, excavation, and fill shall be performed in a manner to maintain or increase flood storage and conveyance capacity and not increase design flood elevations.

2. No net fill increase in any floodplain is allowed. All fill placed in a floodplain shall be balanced with an equal amount of soil material removal. Excavation areas shall not exceed fill areas by more than 50 percent of the square footage. Any excavation below the ordinary high water line shall not count toward compensating for fill.

3. Excavation to balance a fill shall be located on the same lot or parcel as the fill unless it is not reasonable or practicable to do so. In such cases, the excavation shall be located in the same drainage basin and as close as possible to the fill site, so long as the proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis.

Response: The applicant has provided a cut/fill analysis by a civil engineer (Exhibit M), which demonstrates that the proposal complies with the balanced cut and fill requirements of this Section.

J. Minimum Finished Floor Elevation.

1. *Minimum finished floor elevations must be at least one foot above the design flood height or highest flood of record, whichever is higher, for new habitable structures in the flood area.*

Response: The site is in the Special Flood Hazard Area but no structure is proposed. This standard does not apply.

K. Other Requirements.

1. *New culverts, stream crossings, and transportation projects shall be designed as balanced cut and fill projects or designed not to significantly raise the design flood elevation. Such projects shall be designed to minimize the area of fill in flood management areas and to minimize erosive velocities. Stream crossings shall be as close to perpendicular to the stream as practicable. Bridges shall be used instead of culverts wherever practicable.*
2. *Excavation and fill required for the construction of detention facilities or structures, and other facilities, such as levees, specifically shall be designed to reduce or mitigate flood impacts and improve water quality. Levees shall not be used to create vacant buildable land.*

Response: No new culverts, stream crossings, transportation projects, detention facilities, or other flood structures are proposed. This standard does not apply.

27.080 Specific Standards for Riverine Flood Zones

These specific standards shall apply to all new construction and substantial improvements in addition to the general standards contained in CDC 27.070.

A. Flood Openings.

1. *All new construction and substantial improvements with fully enclosed areas below the lowest floor (excluding basements) are subject to the following requirements:*
2. *Enclosed areas below the base flood elevation, including crawl spaces, shall:*
   a. *Be designed to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters;*
   b. *Be used solely for parking, storage, or building access;*
   c. *Be certified by a registered professional engineer or architect or meet or exceed all of the following minimum criteria:*
      1) *A minimum of two openings,*
      2) *The total net area of nonengineered openings shall be not less than one square inch for each square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls,*
      3) *The bottom of all openings shall be no higher than one foot above grade,*
      4) *Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area,*
      5) *All additional higher standards for flood openings in the State of Oregon Residential Specialty Codes Section R322.2.2 shall be complied with when applicable.*

Response: No building is proposed. This standard is not applicable.

B. Garages.

1. *Attached garages may be constructed with the garage floor slab below the base flood elevation (BFE) in riverine flood zones, if the following requirements are met:*

a. If located within a floodway the proposed garage must comply with the requirements of CDC 27.090.

b. The floors are at or above grade on not less than one side;

c. The garage is used solely for parking, building access, and/or storage;

d. The garage is constructed with flood openings in compliance with subsection (A) of this section to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater;

e. The portions of the garage constructed below the BFE are constructed with materials resistant to flood damage;

f. The garage is constructed in compliance with the standards in CDC 27.070; and

g. The garage is constructed with electrical and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

2. Detached garages must be constructed in compliance with the standards for appurtenant structures in subsection (C)(6) of this section or nonresidential structures in subsection (C)(3) of this section depending on the square footage of the garage.

Response: No garages are proposed. This standard is not applicable.

C. For Riverine Special Flood Hazard Areas With Base Flood Elevations. In addition to the general standards listed in CDC 27.070 the following specific standards shall apply in riverine (noncoastal) special flood hazard areas with base flood elevations (BFE): zones A1-30, AH, and AE.

1. Before Regulatory Floodway. In areas where a regulatory floodway has not been designated, no new construction, substantial improvement, or other development (including fill) shall be permitted within zones A1-30 and AE on the community's flood insurance rate map (FIRM), unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

Response: A regulatory floodway has been designated for the Willamette River (see Exhibits G, I, and J) but the proposed construction area is not located within it. This standard is not applicable.

2. Residential Construction.

a. New construction, conversion to, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at or above one foot above the base flood elevation.

b. Enclosed areas below the lowest floor shall comply with the flood opening requirements in subsection (A) of this section.

Response: No residential construction is proposed. This standard does not apply.

3. Nonresidential Construction.

a. New construction, conversion to, and substantial improvement of any commercial, industrial, or other nonresidential structure shall:

1) Have the lowest floor, including basement, elevated at or above one foot above the base flood elevation (BFE) or, together with attendant utility and sanitary facilities:

(A) Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

(B) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(C) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this section based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth in CDC 27.060(B)(2).

b. Nonresidential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in subsection (A) of this section.

c. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building floodproofed to the base flood level will be rated as one foot below).

Response: According to the definitions in Section 2.030, for the purposes of floodplain management, "structure" only refers to walled and roofed buildings and "new construction" only refers to structures. The proposed driveway and parking improvements do not constitute new construction or a structure. This standard does not apply.

4. Manufactured Dwellings.

a. Manufactured dwellings to be placed (new or replacement) or substantially improved that are supported on solid foundation walls shall be constructed with flood openings that comply with subsection (A) of this section.

b. The bottom of the longitudinal chassis frame beam shall be at or above base flood elevation.

c. Manufactured dwellings to be placed (new or replacement) or substantially improved shall be anchored to prevent flotation, collapse, and lateral movement during the base flood. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

d. Electrical crossover connections shall be a minimum of 12 inches above base flood elevation (BFE).

Response: No manufactured dwellings are proposed. This standard does not apply.

5. Recreational Vehicles. Recreational vehicles placed on sites are required to:

a. Be on the site for fewer than 180 consecutive days; and

b. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

c. Meet the requirements of subsection (C)(4) of this section, including the anchoring and elevation requirements for manufactured dwellings.

Response: No recreational vehicle placement is proposed. This standard does not apply.

6. Appurtenant (Accessory) Structures. Relief from elevation or floodproofing requirements for residential and nonresidential structures in riverine (noncoastal) flood zones may be granted for appurtenant structures that meet the following requirements:

a. Appurtenant structures located partially or entirely within the floodway must comply with requirements for development within a floodway found in CDC 27.090.

b. *Appurtenant structures must only be used for parking, access, and/or storage and shall not be used for human habitation.*

c. *In compliance with State of Oregon Specialty Codes, appurtenant structures on properties that are zoned residential are limited to one-story structures less than 200 square feet, or 400 square feet if the property is greater than two acres in area and the proposed appurtenant structure will be located a minimum of 20 feet from all property lines. Appurtenant structures on properties that are zoned as nonresidential are limited in size to 120 square feet.*

d. *The portions of the appurtenant structure located below the base flood elevation must be built using flood resistant materials.*

e. *The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood.*

f. *The appurtenant structure must be designed and constructed to equalize hydrostatic flood forces on exterior walls and comply with the requirements for flood openings in subsection (A) of this section.*

g. *Appurtenant structures shall be located and constructed to have low damage potential.*

h. *Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed in compliance with CDC 27.070(E).*

i. *Appurtenant structures shall be constructed with electrical, mechanical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.*

Response: No appurtenant structures are proposed. This standard does not apply.

7. *Below-Grade Crawl Spaces.*

a. *The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required flood openings stated in subsection (A) of this section. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than five feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer. Other types of foundations are recommended for these areas.*

b. *The crawlspace is an enclosed area below the base flood elevation (BFE) and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one foot above the lowest adjacent exterior grade.*

c. *Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottom of joists and all insulation above BFE.*

d. *Any building utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system*

components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.

e. The interior grade of a crawlspace below the BFE must not be more than two feet below the lowest adjacent exterior grade.

f. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, must not exceed four feet at any point. The height limitation is the maximum allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas.

g. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles or gravel or crushed stone drainage by gravity or mechanical means.

h. The velocity of floodwaters at the site shall not exceed five feet per second for any crawlspace. For velocities in excess of five feet per second, other foundation types should be used.

Response: No below-grade crawl spaces are proposed. This standard is not applicable.

27.090 Standards for Floodways

Located within the special flood hazard areas established in CDC 27.020(A) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of the floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless:

1. Certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment shall not result in any increase in flood levels within the community during the occurrence of the base flood discharge; or

2. A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations; provided, that a conditional letter of map revision (CLOMR) is applied for and approved by the Federal Insurance Administrator, and the requirements for such revision as established under 44 CFR 65.12 are fulfilled.

B. If the requirements of subsection (A) of this section are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard reduction provisions of CDC 27.070, 27.080, this section, and CDC 27.100.

Response: As illustrated in Exhibits G, I, and J, the floodway is largely confined to the Willamette River channel and that portion of the site closest to the riverbank. No encroachments or site improvements are proposed in the floodway. This standard is met.

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.

Response: As illustrated in Exhibit F, although the northern portion of the site is within the Willamette River Greenway Area, the work area for the proposed driveway and parking improvements is entirely outside it. Therefore, the provisions of Chapter 28 are not applicable to the project under this subsection.

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.*

Response: The proposed work area is not within 200 feet of the ordinary low water mark of the Tualatin River, or within the 100-year floodplain of the Tualatin River. Therefore, the provisions of Chapter 28 are not applicable to the project under this subsection.

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.*

Response: This provision establishes a three-part test to determine whether a Willamette and Tualatin River Protection Area permit is required:

1. if all, or any part, of a lot or parcel is in the Willamette Greenway and Tualatin River Protection Area boundaries,
   AND
2. there are HCAs on the lot or parcel,
   AND
3. the development proposal is not exempt per CDC 28.040.

All three of the threshold criteria must be met for a Willamette and Tualatin River Protection Permit to be required under this subsection. With respect to the three-part test:

1. A portion of the subject site is within the Willamette River Greenway Area or Tualatin River Protection Area boundaries (see Exhibit F); therefore, the initial threshold test is met.
2. A portion of the site is within Habitat Conservation Areas, as depicted on Exhibit F; therefore, the second threshold test is met.
3. The proposed use of the property is exempt from a permit under CDC 28.040; therefore, the third threshold test is not met.

Since the third threshold requirement is not met, the provisions of Chapter 28 are not applicable to the subject property under this subsection.

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.*

Response: The subject parcel includes the confluence of Maddax Creek with the Willamette River, but no part of the proposed work area is located in the portion of the lot fronting the river. Accordingly, development near the creek is regulated by Chapter 32. Compliance with Chapter 32 is demonstrated in the responses to the code provisions within that chapter. This standard is met.

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.

Response: The existing park use is permitted under the R-10 base zone, and the applicant is proposing activities which are exempt from permit per CDC 28.040. This standard does not apply.

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 pre-existing structure.

Response: No structure or expansion of a structure is proposed in the HCA. This standard does not apply.

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.)

K. Routine repair and maintenance of legally established structures, utilities, roads, and human-made water control facilities such as constructed ponds or lakes, wastewater facilities, and stormwater treatment facilities that do not alter the location or footprint of the structure, utility, or road.

M. Minor modifications. A modification shall be considered "minor" when it results in a change in the approved design that is equal to or less than a 10 percent increase in the length, width or height of the facility. A change of location by under 20 feet laterally for any part of the structure, ramp, dock, etc., also constitutes a minor modification.

Response: As shown in Exhibit J Sheets V1.10 and C1.10, the proposed driveway and parking improvements are located within the same footprint as the existing disturbed areas, both within the site and within the abutting River Street right-of-way. Therefore, the proposed development does not require a permit under Chapter 28.

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.

Response: As shown in Exhibit E, Exhibit F, and Exhibit J Sheet V1.10, a portion of the site is within the Water Resource Area. The proposed area of work is within the WRA. This chapter applies.

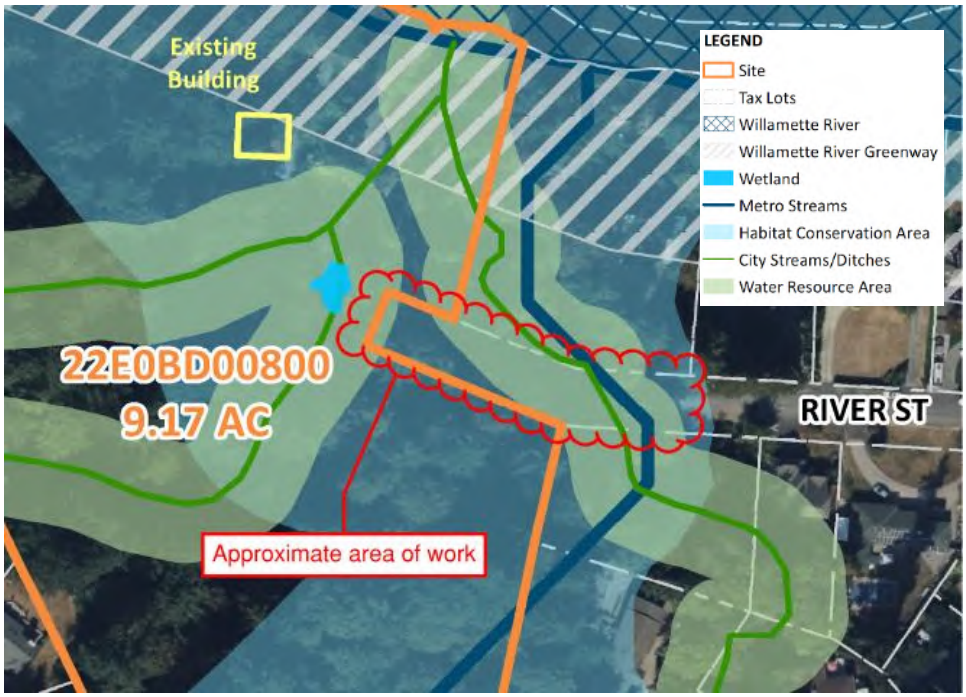


Figure 2: Area of Work and Water Resource Area

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.

Response: The report and plans included with this application include site-specific information to identify the exact location of WRA features (see Exhibits F and J). This standard is met.

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.

B. Building, paving, grading, and testing.

1. Maintenance. Routine repair, maintenance and replacement of legally established above and below ground utilities and related components (including storm water catch basins, intakes, etc.), roads, driveways, paths, trails, fences and manmade water control facilities such as constructed ponds, wastewater facilities, and storm water treatment facilities that do not expand the disturbed area at grade or footprint, provided re-vegetation of disturbed areas or corridors is performed pursuant to CDC 32.100.

5. The installation, within the developed portions of street rights-of-way, of new utilities, the maintenance or replacement of existing utilities and street repaving projects.

Response: As shown in Exhibit J Sheets V1.10 and C1.10, the proposed driveway and parking improvements are located within the same footprint as the existing disturbed areas, both within the site and within the abutting River Street right-of-way. Therefore, the proposed development is exempt from a WRA permit per subsections 32.040.B(1) and (5).

32.110 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 their property.

A. The right to obtain a hardship allowance is based on the existence of a lot of record recorded with the County Assessor's Office on, or before, January 1, 2006. The lot of record may have been, subsequent to that date, modified from its original platted configuration but must meet the minimum lot size and dimensional standards of the base zone.

Response: The subject property consists of a single parcel which has been in City ownership since prior to January 1, 2006. The site is therefore eligible for the hardship allowance.

F. Development allowed under subsection A of this section may use the following provisions:

2. Landscaping and parking requirements may be reduced for hardship properties but only if all or part of the WRA is dedicated pursuant to CDC 32.060(C) or if a restrictive deed covenant is established. These reductions shall be permitted outright and, to the extent that the practices are inconsistent with other provisions or standards of the West Linn CDC, this section is given precedence so that no variance is required. The allowable reductions include:

a. Elimination of landscaping for the parking lot interior.

…

c. Elimination of landscaping between parking lots and perimeter non-residential properties.

…

g. The current compact and full sized parking mix may be modified to allow up to 100 percent compact spaces and no full sized spaces. However, any required ADA compliant spaces shall be provided.

Response: The applicant requests to eliminate parking lot interior landscaping due to the presence of WRA in the parking area under criterion (a), to eliminate perimeter landscaping under criterion (c), and to provide of more than 50% compact spaces under criterion (g). CDC 32.060(C) was repealed by Ordinance 1647; however, prior to its repeal, the code provision indicated in part that "The City shall request dedications of the WRA to the City when acquisition of the WRA by dedication or easement would serve a public purpose." While this code provision is no longer applicable, unlike a private development, this site is in fact publicly owned by the City and used as a public park. The request is consistent with the reductions specifically allowed under this Section.

Chapter 42 Clear Vision Areas

42.020 Clear Vision Areas Required, Uses Prohibited

A. A clear vision area shall be maintained on the corners of all property adjacent to an intersection as provided by CDC 42.040 and 42.050.

B. *A clear vision area shall contain no planting, fence, wall, structure or temporary or permanent obstruction (except for an occasional utility pole or tree) exceeding three feet in height, measured from the top of the curb, or, where no curb exists, from the street centerline grade, except that trees exceeding this height may be located in this area, provided all branches below eight feet are removed.*

Response: The existing driveway does not intersect with River Street at a right angle but rather serves as an extension of the roadway. Therefore, there is no corner to which clear vision areas would apply. This standard does not apply.

42.030 Exceptions

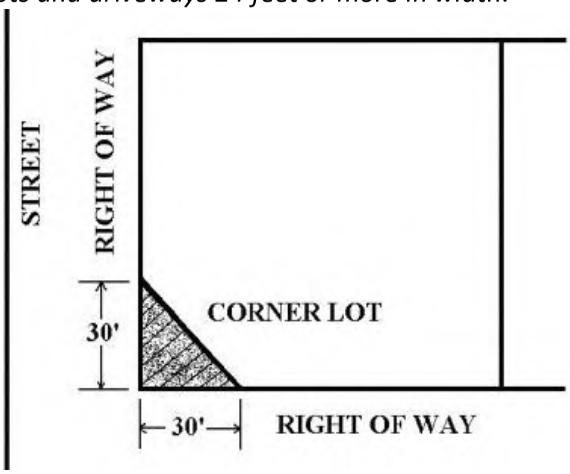
The following described area in Willamette shall be exempt from the provisions of this chapter. The units of land zoned General Commercial which abut Willamette Falls Drive, located between 10th and 16th Streets. Beginning at the intersection of Willamette Falls Drive and 11th Street on 7th Avenue to 16th Street; on 16th Street to 9th Avenue; on 9th Avenue to 14th Street to the Tualatin River; following the Tualatin River and Willamette River to 12th Street; on 12th Street to 4th Avenue; on 4th Avenue to 11th Street; on 11th Street to Willamette Falls Drive. This described area does not include the northerly side of Willamette Falls Drive.

Response: The subject site is not within the described area, so these exceptions do not apply.

42.040 Computation; Street and Accessway 24 Feet or More in Width

The clear vision area for all street intersections and street and accessway intersections (accessways having 24 feet or more in width) shall be that triangular area formed by the right-of-way or property lines along such lots and a straight line joining the right-of-way or property line at points which are 30 feet distant from the intersection of the right-of-way line and measured along such lines.

Clear vision area for corner lots and driveways 24 feet or more in width:

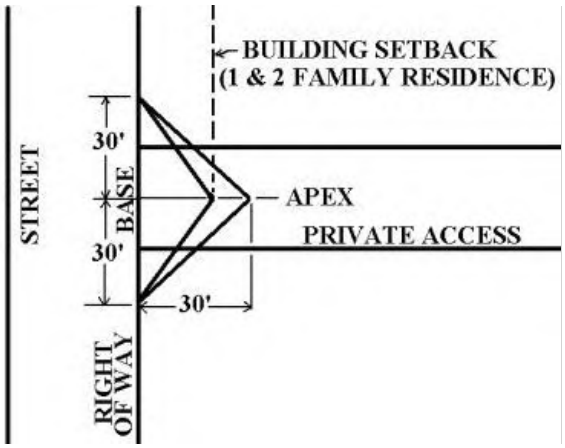


Response: No driveways or accessways with widths of 24 feet or more are proposed. This standard does not apply.

42.050 Computation; Accessway less than 24 Feet in Width

The clear vision area for street and accessway intersections (accessways having less than 24 feet in width) shall be that triangular area whose base extends 30 feet along the street right-of-way line in both directions from the centerline of the accessway at the front setback line of a single-family and two-family residence, and 30 feet back from the property line on all other types of uses.

Clear vision area for corner lots and driveways less than 24 feet in width:



Response: The site driveway is less than 24 feet wide. However, as noted above, the existing driveway does not intersect with River Street at a right angle but rather serves as an extension of the roadway. Therefore, there is no corner to which clear vision areas would apply. This standard does not apply.

Chapter 46 Off-Street Parking, Loading and Reservoir Areas

46.020 Applicability and General Provisions

A. At the time a structure is erected or enlarged, or the use of a structure or unit of land within any zone, parking spaces, loading areas and reservoir areas shall be provided in accordance with the requirements of this chapter unless other requirements are otherwise established as a part of the development approval process.

B. The provision and maintenance of off-street parking and loading spaces are the continuing obligation of the property owner.

C. No building or other permit shall be issued until plans are approved that show the property that is and will remain available for exclusive use as off-street parking and loading space as required by this chapter.

D. Required parking spaces and loading areas shall be improved to the standards contained in this chapter and shall be available for use at the time of the final building inspection except as provided in CDC 46.150.

Response: This project proposes replacement of the driving surface of the existing driveway and parking area but does not include construction of a new building or enlargement of an existing building. The project also does not change the use of the site as a public park. Parking is available in conformance with this chapter. This standard is met.

46.070 Maximum Distance Allowed Between Parking Area and Use

A. Off-street parking spaces for single-family dwellings shall be located on the same lot with the dwelling.

B. Off-street parking spaces for uses not listed in subsection A of this section shall be located not farther than 200 feet from an entryway to the building or use they are required to serve, measured in a straight line from the building, with the following exceptions:

[detailed provisions omitted for brevity.]

Response: As shown in the attached plans (see Sheet C1.10 in Exhibit J), the parking area is located on-site and within the abutting right-of-way, providing directly-adjacent access to the park by visitors. This standard is met.

46.090 Minimum Parking Space Requirements

B. Public and semi-public buildings/uses.

10.	*Passive parks, open space areas*	*One space per 5 acres to 1 space per acre unless the open space area is abutting a street with no intervening homes or land uses, and has at least 300 lineal feet of street frontage where on-street parking is allowed.*

Response: The March 2019 Parks Master Plan, Table 1, identifies Maddax Woods Park as a passive-oriented park. The site is 9.17 acres. As such, the minimum parking is two to nine spaces. The park currently has parking areas along the driveway but no marked spaces. As shown on Sheet C1.10 in Exhibit J, eight marked parking spaces will be available following the proposed improvements. This standard is met.

F. Maximum parking. Parking spaces (except for single-family attached and detached residential uses) shall not exceed the minimum required number of spaces by more than 10 percent.

Response: Based on the minimum requirement of two to nine spaces, the maximum allowable parking is ten spaces. As shown on Sheet C1.10 in Exhibit J, eight marked parking spaces will be available following the proposed improvements. The maximum allowable number of spaces has not been exceeded. This standard is met.

H. For office, industrial, and public uses where there are more than 20 parking spaces for employees on the site, at least 10 percent of the required employee parking spaces shall be reserved for carpool use before 9:00 a.m. on weekdays. The spaces will be the closest to the building entrance, except for any disabled parking and those signed for exclusive customer use. The carpool/vanpool spaces shall be clearly marked "Reserved – Carpool/Vanpool Before 9:00 a.m."

Response: The site is a public park but there are fewer than 20 parking spaces. This standard does not apply.

46.150 Design and Standards

The following standards apply to the design and improvement of areas used for vehicle parking, storage, loading, and circulation:

A. Design standards

1. "One standard parking space" means a minimum for a parking stall of eight feet in width and 16 feet in length. These stalls shall be identified as "compact." To accommodate larger cars, 50 percent of the required parking spaces shall have a minimum dimension of nine feet in width and 18 feet in length (nine feet by 18 feet). When multi-family parking stalls back onto a main driveway, the stalls shall be nine feet by 20 feet. Parking for development in water resource areas may have 100 percent compact spaces.

Response: As parking spaces are within a water resource area, they are allowed to meet the compact space dimensions of 8' by 16'. As shown on Sheet C1.10 of Exhibit J, parallel parking spaces are proposed with dimensions of 8' by 23', while perpendicular spaces are proposed with dimensions of 9' by 18'. This standard is met.

2. Disabled parking and maneuvering spaces shall be consistent with current federal dimensional standards and subsection B of this section and placed nearest to accessible building entryways and ramps.

Response: Disabled parking is provided in accordance with applicable standards of the Americans with Disabilities Act (ADA) and the Oregon Structural Specialty Code. Subsection B is addressed below. This standard is met.

3. *Repealed by Ord. 1622.*
4. *Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety of traffic access and egress, and maximum safety of pedestrians and vehicular traffic on the site.*

Response: The existing driveway is relatively narrow. To minimize impacts on HCA and WRA, the proposed improvements do not enlarge the disturbed area. The driveway provides a single travel lane width: drivers must yield to oncoming vehicles and take turns to enter and exit the site without conflicts; this is feasible at this location because traffic volume is very low. Also due to limited site access by vehicles, the narrow driveway provides sufficient opportunities for pedestrians to enter and exit. No changes are proposed to the existing parking or driveway widths. This standard is met.

5. *Each parking and/or loading space shall have clear access, whereby the relocation of other vehicles to utilize the parking space is not required.*

Response: As depicted on Sheet C1.10 of Exhibit J, all proposed parking spaces have sufficient access to allow use of the spaces without relocating other vehicles. This standard is met.

6. *Except for single-family attached and detached residences, any area intended to be used to meet the off-street parking requirements as contained in this chapter shall have all parking spaces clearly marked using a permanent paint. All interior drives and access aisles shall be clearly marked and signed to show direction of flow and maintain vehicular and pedestrian safety. Permeable parking surface spaces may have an alternative delineation for parking spaces.*

Response: As shown on Sheet C1.10 of Exhibit J, the parking spaces will be surfaced with permeable pavement and striped as required. This standard is met.

7. *Except for residential parking, and parking for public parks and trailheads, at least 50 percent of all areas used for the parking and/or storage and/or maneuvering of any vehicle, boat and/or trailer shall be improved with asphalt or concrete surfaces according to the same standards required for the construction and acceptance of City streets. The remainder of the areas used for parking may use a permeable paving surface designed to reduce surface runoff. Parking for public parks or trailheads may use a permeable paving surface designed to reduce surface runoff for all parking areas. Where a parking lot contains both paved and unpaved areas, the paved areas shall be located closest to the use which they serve.*

Response: This project includes parking for a public park. As shown on Sheet C1.10 of Exhibit J, all of the proposed parking spaces will be surfaced with permeable pavement. This standard is met.

8. *Off-street parking spaces for single-family attached and detached residences shall be improved with an asphalt or concrete surface, or a permeable parking surface designed to reduce surface runoff, to specifications as approved by the Building Official. Other parking facilities for single-family homes that are to accommodate additional vehicles, boats, recreational vehicles, and trailers, etc., need not be paved. All parking for multifamily residential development shall be paved with concrete or asphalt. Driveways shall measure at least 20 feet from the back of sidewalk to garage or the end of the parking*

pad to accommodate cars and sport utility vehicles without the vehicles blocking the public sidewalk.

Response: No residential use is proposed. This standard does not apply.

9. *Access drives from the street to off-street parking or loading areas shall be designed and constructed to facilitate the flow of traffic and provide maximum safety for pedestrian and vehicular traffic on the site. The number of access drives shall be limited to the minimum that will allow the property to accommodate and service the anticipated traffic. Access drives shall be clearly and permanently marked and defined through use of rails, fences, walls, or other barriers or markers on frontage not occupied by service drives.*

Response: As shown on Sheet C1.10 of Exhibit J, the parking spaces will be accessed directly from the public street and on-site drive area. No access drives are proposed. This standard does not apply.

10. *Access drives shall have a minimum vision clearance as provided in Chapter 42 CDC, Clear Vision Areas.*

Response: No access drives are proposed. This standard does not apply.

11. *Parking spaces along the boundaries of a parking lot or adjacent to interior landscaped areas or sidewalks shall be provided with a wheel stop at least four inches high located two feet back from the front of the parking stall. Such parking spaces may be provided without wheel stops if the sidewalks or landscaped areas adjacent the parking stalls are two feet wider than the minimum width.*

Response: As shown on Sheet C1.10 of Exhibit J, the proposed perpendicular parking spaces include wheel stops as required. The proposed parallel parking spaces do not need wheel stops. This standard is met.

12. *Off-street parking and loading areas shall be drained in accordance with plans and specifications approved by the City Engineer. Storm drainage at commercial sites may also have to be collected to treat oils and other residue.*

Response: Pervious pavement is proposed for the driveway and parking spaces to enable stormwater to infiltrate directly. This standard is met.

13. *Artificial lighting on all off-street parking facilities shall be designed to deflect all light downward away from surrounding residences and so as not to create a hazard to the public use of any road or street.*

Response: No new parking lighting is proposed. This standard does not apply.

14. *Directional arrows and traffic control devices which are placed on parking lots shall be identified.*

Response: As the parking area is small and contains parallel parking spaces along the driveway, no directional arrows or traffic control devices are needed. This standard does not apply.

17. *The parking area shall have less than a five percent grade. No drainage across adjacent sidewalks or walkways is allowed.*

Response: As shown on Sheet C1.10 of Exhibit J, the existing driveway and parking area is relatively level with slopes less than 5%. No changes are proposed to the parking area grade. This standard is met.

18. *Commercial, office, industrial, and public parking lots may not occupy more than 50 percent of the main lot frontage of a development site. The remaining frontage shall comprise buildings or landscaping. If over 50 percent of the lineal frontage comprises parking lot, the landscape strip between the right-of-way and parking lot shall be increased to 15 feet wide and shall include terrain variations (e.g., one-foot-high berm) plus landscaping. The defensible space of the parking lot should not be compromised.*

Response: The site has approximately 290' of frontage along the River Street right-of-way. As shown on Sheet C1.10 of Exhibit J, the parking area will be 8' wide (16%). This standard is met.

19. *Areas of the parking lot improved with asphalt or concrete surfaces shall be designed into areas of 12 or less spaces through the use of defined landscaped area. Groups of 12 or less spaces are defined as:*
    a. *Twelve spaces in a row, provided there are no abutting parking spaces, as in the case when the spaces are abutting the perimeter of the lot; or*
    b. *Twelve spaces in a group with six spaces abutting together; or*
    c. *Two groups of 12 spaces abutting each other, but separated by a 15-foot-wide landscape area including a six-foot-wide walkway.*
    d. *Parking areas improved with a permeable parking surface may be designed using the configurations shown in subsections (A)(19)(a), (b) and (c) of this section except that groups of up to 18 spaces are allowed.*
    e. *The requirements of this chapter relating to total parking lot landscaping, landscaping buffers, perimeter landscaping, and landscaping the parking lot islands and interior may be waived or reduced pursuant to CDC 32.110(F) in a WRA application without a variance being required.*

Response: As shown on Sheet C1.10 of Exhibit J, only eight parking spaces are proposed. As noted in the response to CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. With the approval of the requested reductions under Section 32.110(F)(2)(a), (c) and (g), this standard is met.

20. *Pedestrian walkways shall be provided in parking areas having 20 or more spaces. Walkways or sidewalks shall be constructed between major buildings/activity areas (an example in multi-family housing: between recreation center, swimming pool, manager's office, park or open space areas, parking lots, etc.) within a development, between adjacent developments and the new development, as feasible, and between major buildings/activity areas within the development and adjacent streets and all adjacent transit stops. Internal parking lot circulation and design should maintain ease of access for pedestrians from streets and transit stops. Walkways shall be constructed using a material that visually contrasts with the parking lot and driveway surface. Walkways shall be further identifiable to pedestrians and motorists by grade separation, walls, curbs, surface texture (surface texture shall not interfere with safe use of wheelchairs, baby carriages, shopping carts, etc.), and/or landscaping. Walkways shall be six feet wide. The arrangement and layout of the paths shall depend on functional requirements.*

Response: The parking area has only eight spaces, so no pedestrian walkways are required. This standard does not apply.

21. *The parking and circulation patterns are easily comprehended and defined. The patterns shall be clear to minimize traffic hazards and congestion and to facilitate emergency vehicles.*

Response: As the parking area is small and all in one row, no directional arrows or traffic control devices are merited.

22. The parking spaces shall be close to the related use.
Response: As shown in the attached plans (see Sheet C1.10 in Exhibit J), the parking area is located on-site, providing directly-adjacent access to the park by visitors. This standard is met.

23. Permeable parking spaces shall be designed and built to City standards.
Response: The parking spaces will be surfaced with permeable pavement. This standard is met.

B. Accessible parking standards for persons with disabilities. If any parking is provided for the public or visitors, or both, the needs of the people with disabilities shall be based upon the following standards or current applicable federal standards, whichever are more stringent:

1. Minimum number of accessible parking space requirements (see following table):

MINIMUM REQUIRED NUMBER OF TOTAL PARKING SPACES	TOTAL NUMBER OF ACCESSIBLE SPACES	NUMBER OF VAN-ACCESSIBLE SPACES REQUIRED, OF TOTAL	SPACES SIGNED "WHEELCHAIR USE ONLY"
1 – 25	1	1	-

2. Location of parking spaces. Parking spaces for the individual with a disability that serve a particular building shall be located on the shortest possible accessible circulation route to an accessible entrance to a building. In separate parking structures or lots that do not serve a particular building, parking spaces for the persons with disabilities shall be located on the shortest possible circulation route to an accessible pedestrian entrance of the parking facility.

3. Accessible parking space and aisle shall meet ADA vertical and horizontal slope standards.

4. Where any differences exist between this section and current federal standards, those standards shall prevail over this code section.

5. One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 inches wide.

6. Van-accessible parking spaces shall have an additional sign marked "Van Accessible" mounted below the accessible parking sign. A van-accessible parking space reserved for wheelchair users shall have a sign that includes the words "Wheelchair Use Only." Van-accessible parking shall have an adjacent eight-foot-wide aisle. All other accessible stalls shall have a six-foot-wide aisle. Two vehicles may share the same aisle if it is between them. The vertical clearance of the van space shall be 96 inches.

Response: One van-accessible parking space will be provided, as shown on Sheet C1.10 of Exhibit J. Signage and slopes will conform to applicable standards of the Americans with Disabilities Act and the Oregon Structural Specialty Code. This standard is met.

C. Landscaping in parking areas. Reference Chapter 54 CDC, Landscaping.
Response: Chapter 54 is addressed in this narrative under that heading. As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area.

D. Bicycle facilities and parking.

1. Provisions shall be made for pedestrian and bicycle ways if such facilities are shown on an adopted plan.

2. Bicycle parking facilities shall either be lockable enclosures in which the bicycle is stored, or secure stationary racks which accommodate bicyclist's locks securing the frame and

both wheels. The bicycle parking shall be no more than 50 feet from the entrance to the building, well-lit, observable, and properly signed.

3. Bicycle parking must be provided in the following amounts:…

[Table omitted as it does not list parks]

Response: No bicycle parking is required for park uses. This standard does not apply.

F. (See Figures 1 and 2 below.)

FIGURE 1. MINIMUM STANDARDS FOR PARKING LOT LAYOUT

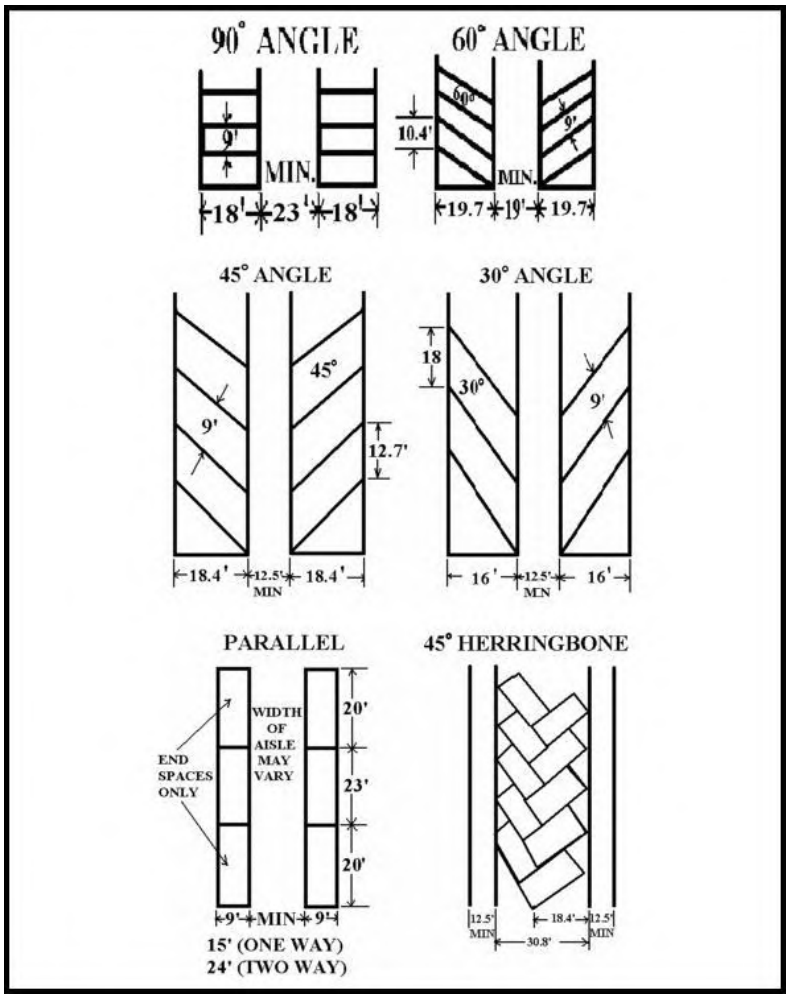
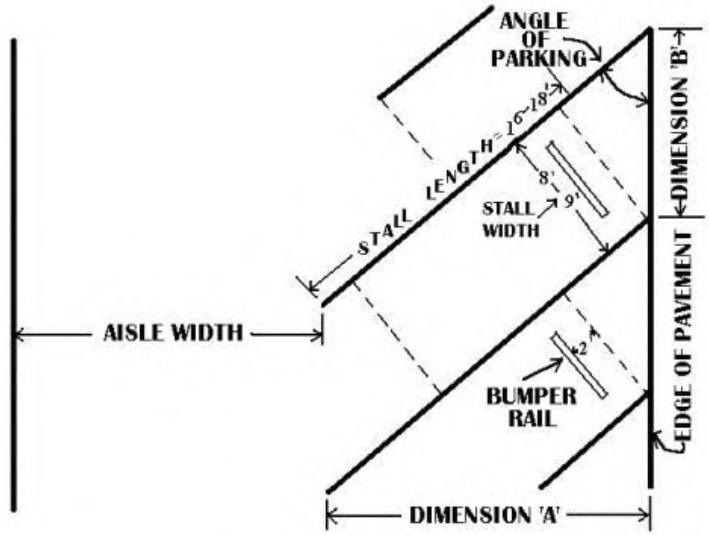


FIGURE 2. MINIMUM DISTANCE FOR PARKING STALLS



ANGLE OF PARKING	DIRECTION OF PARKING	AISLE WIDTH		DIMENSION 'A'		DIMENSION 'B'	
		STALL WIDTH		STALL WIDTH		STALL WIDTH	
		9.0'	8.0'	9.0'	8.0'	9.0'	8.0'
30°	DRIVE-IN	12.5'	12.5'	16.8'	13.8'	18.0'	16.0'
45°	DRIVE-IN	12.5'	12.5'	19.1'	17.0'	12.7'	11.3'
60°	DRIVE-IN	19.0'	18.0'	20.1'	17.8'	10.4'	9.2'
60°	BACK-IN	17.0'	17.0'	20.1'	17.8'	10.4'	9.2'
90°	DRIVE-IN	23.0'	23.0'	18.0'	16.0'	9.0'	8.0'
90°	BACK-IN	22.0'	22.0'	18.0'	16.0'	9.0'	8.0'

Response: As illustrated on Sheet C1.10 of Exhibit J, the applicant has proposed four 90° parking spaces, with minimum dimensions of 9' by 18'. The applicant also proposes four parallel parking spaces with minimum dimensions of 8' by 23', which meets the minimum dimensions for compact spaces. Up to 100% compact spaces are permitted in the Water Resource Area per CDC 32.110(F)(2)(g).

The aisle width for the 90° parking spaces varies from approximately 20' to approximately 35', while the proposed one-way aisle by the parallel spaces has a minimum width of approximately 12'. While portions of these aisles are narrower than the minimum widths in Figure 1 (15' for parallel spaces and 23' for perpendicular spaces), the dimensions of the parking and aisles constitute an existing nonconforming situation which is not proposed to be altered with the proposed change in surfacing.

Furthermore, the majority of the parking area and drive aisle is within the River Street right-of-way. The "hybrid" configuration is proposed in a unique circumstance where the access, circulation, and parking are all in a shared public right-of-way/public park area with specific constraints that call for a unique

solution. The design is approvable in this context because the overall configuration provides sufficient access and circulation in light of the limited vehicular traffic that visits the passive-use park facility.

Finally, the parking spaces outside the right-of-way on private property are 90° parking spaces and provide more than the required 23' drive aisle. This standard is met.

Chapter 48 Access, Egress and Circulation

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, Transportation 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 off-street 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" as approved by the City Engineer.

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.

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).

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.

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.

7. Number of access points. For single-family (detached and attached), two-family, 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.

Response: No changes are proposed to access points. The existing entrance to the site from the dead-end of River Street will remain and will be used for parking and pedestrian access. These standards do not apply.

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.

Response: This project is not a land division or large site redevelopment, and no changes are proposed to blocks. This standard does not apply.

48.040 Minimum Vehicle Requirements for Non-Residential Uses

Access, egress, and circulation system for all non-residential uses shall not be less than the following:

A. Service drives for non-residential uses shall be fully improved with hard surface pavement:

1. With a minimum of 24-foot width when accommodating two-way traffic; or

2. With a minimum of 15-foot width when accommodating one-way traffic. Horizontal clearance shall be two and one-half feet wide on either side of the driveway.

3. Meet the requirements of CDC 48.030(E)(3) through (6).

4. Pickup window driveways may be 12 feet wide unless the Fire Chief determines additional width is required.

Response: The existing narrow driveway and parking area accommodate sequential single-direction travel, that is, vehicles take turns using the narrow drive aisle for ingress and egress. This manner of operations will continue in the future. The one-way aisle by the parallel spaces has a minimum width of approximately 12', which is smaller than the 15' standard for one-way traffic. While the drive aisle does not meet minimum width standards, it is an existing nonconforming situation that is not proposed to be altered with the proposed change in surfacing. This standard 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.

Response: No new curb cuts are proposed. The existing connection to River Street has a width of approximately 16' where it meets the existing edge of pavement. This standard is met.

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.

Response: No new curb cut locations are proposed. These standards do not apply.

G. Adequate line of sight pursuant to engineering standards should be afforded at each driveway or accessway.

Response: The existing driveway does not intersect with River Street at a right angle but rather serves as an extension of the roadway. Therefore, there are clear sightlines when entering the street. This standard is met.

Chapter 54 Landscaping

54.020 Approval Criteria

A. Every development proposal requires inventorying existing site conditions which include trees and landscaping. In designing the new project, every reasonable attempt should be made to preserve and protect existing trees and to incorporate them into the new landscape plan. Similarly, significant landscaping (e.g., bushes, shrubs) should be integrated. The rationale is that saving a 30-foot-tall mature tree helps maintain the continuity of the site, they are qualitatively superior to two or three two-inch caliper street trees, they provide immediate micro-climate benefits (e.g., shade), they soften views of the street, and they can increase the attractiveness, marketability, and value of the development.

Response: As the permeable paving for the driveway and parking area will be constructed over the existing gravel driveway and parking area, only limited site disturbance will occur, and the balance of the site will continue to provide extensive landscaping. Following construction, the site will continue to be landscaped and maintained in a professional manner by City Parks and Recreation staff. In this unique context, and in light of the limited extent of the proposed surfacing change, the applicant has requested that the Planning Director waive the requirement to prepare a detailed inventory of site conditions and produce a landscape plan, as authorized by CDC 99.035(B). See Exhibit B.

B. To encourage tree preservation, the parking requirement may be reduced by one space for every significant tree that is preserved in the parking lot area for a maximum reduction of 10 percent of the required parking. The City Parks Supervisor or Arborist shall determine the significance of the tree and/or landscaping to determine eligibility for these reductions.

Response: No reduction in the minimum parking requirement has been requested by the applicant. This standard does not apply.

C. Developers must also comply with the municipal code chapter on tree protection.

Response: Per Municipal Code 8.570, trees approved for removal through the development review process do not require an additional tree-removal permit. As shown on Sheet C1.10 of Exhibit J, one 22" cottonwood tree is proposed for removal and other trees near the area of work are proposed to be protected with tree fencing. While the proposed tree protection zone radii are smaller than the typical values indicated in the West Linn Tree Technical Manual, they are based on the location of the existing driveway and parking area, which is not proposed to change as part of the project.

D. Heritage trees. Heritage trees are trees which, because of their age, type, notability, or historical association, are of special importance. Heritage trees are trees designated by the City Council following review of a nomination. A heritage tree may not be removed without a public hearing at least 30 days prior to the proposed date of removal. Development proposals involving land with heritage tree(s) shall be required to protect and save the tree(s). Further discussion of heritage trees is found in the municipal code.

Response: It is the applicant's understanding that the site does not have any Heritage Trees. The applicant does not propose to remove a heritage tree, and none are known to adjoin the proposed area of work. This standard does not apply.

E. Landscaping – By type, location and amount.

2. *Non-residential uses. A minimum of 20 percent of the gross site area shall be landscaped. Parking lot landscaping may be counted in the percentage.*

Response: The subject site is a City public park, and is almost entirely landscaped with natural vegetation. This standard is met.

3. *All uses (residential uses (non-single-family) and non-residential uses):*

   a. *The landscaping shall be located in defined landscaped areas which are uniformly distributed throughout the parking or loading area. There shall be one shade tree planted for every eight parking spaces. These trees shall be evenly distributed throughout the parking lot to provide shade. Parking lots with over 20 spaces shall have a minimum 10 percent of the interior of the parking lot devoted to landscaping. Pedestrian walkways in the landscaped areas are not to be counted in the percentage. The perimeter landscaping, explained in subsection (E)(3)(d) of this section, shall not be included in the 10 percent figure. Parking lots with 10 to 20 spaces shall have a minimum five percent of the interior of the parking lot devoted to landscaping. The perimeter landscaping, as explained above, shall not be included in the five percent. Parking lots with fewer than 10 spaces shall have the standard perimeter landscaping and at least two shade trees. Non-residential parking areas paved with a permeable parking surface may reduce the required minimum interior landscaping by one-third for the area with the permeable parking surface only.*

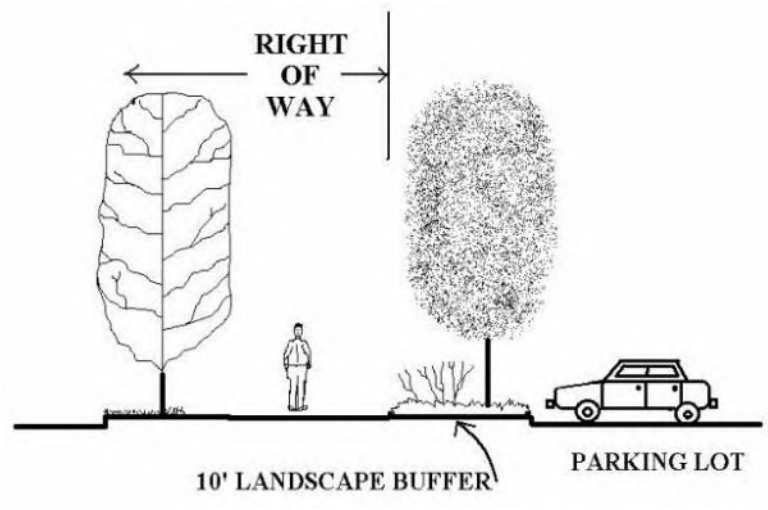
   b. *The landscaped areas shall not have a width of less than five feet.*

   Response: As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. The perimeter of the existing driveway and parking area contains multiple trees, most of which will remain in place (except for one). This standard does not apply.

   c. *The soils, site, proposed soil amendments, and proposed irrigation system shall be appropriate for the healthy and long-term maintenance of the proposed plant species.*

   Response: No plantings are proposed as part of this project. As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. This standard does not apply. Following construction, the site will continue to be landscaped and maintained in a professional manner by City Parks and Recreation staff, with soil amendments added if necessary.

   d. *A parking, loading, or service area which abuts a street shall be set back from the right-of-way line by perimeter landscaping in the form of a landscaped strip at least 10 feet in width. When a parking, loading, or service area or driveway is contiguous to an adjoining lot or parcel, there shall be an intervening five-foot-wide landscape strip. The landscaped area shall contain:*



1) *Street trees spaced as appropriate to the species, not to exceed 50 feet apart on the average;*
2) *Shrubs, not to reach a height greater than three feet, six inches, spaced no more than five feet apart on the average; or*
3) *Vegetative ground cover such as grass, wildflowers, or other landscape material to cover 100 percent of the exposed ground within two growing seasons. No bark mulch shall be allowed except under the canopy of low level shrubs.*

Response: The existing driveway does not intersect with River Street at a right angle but rather serves as an extension of the roadway. Perimeter landscaping cannot be provided without making the parallel spaces inaccessible. Therefore, there is no parking area which abuts the street and no opportunity for a landscaped strip. This standard does not apply.

e. If over 50 percent of the lineal frontage of the main street or arterial adjacent to the development site comprises parking lot, the landscape strip between the right-of-way and parking lot shall be increased to 15 feet in width and shall include terrain variations (e.g., one-foot-high berm) plus landscaping. This extra requirement only applies to one street frontage.

Response: The site has approximately 50' of frontage along the River Street right-of-way. As shown on Sheet C1.10 of Exhibit J, the parking area will be 8' wide (16%). This standard is not applicable.

f. A parking, loading, or service area which abuts a property line shall be separated from the property line by a landscaped area at least five feet in width and which shall act as a screen and noise buffer, and the adequacy of the screen and buffer shall be determined by the criteria set forth in CDC 55.100(C) and (D), except where shared parking is approved under CDC 46.050.

Response: Within the area of work, much of the proposed parking is within the River Street right-of-way and not subject to this provision. The portion of the parking area within the property does not abut a property line next to adjoining properties. See Sheet C1.10 of Exhibit J. This standard does not apply.

g. All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.

h. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation.

Response: As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. Due to the constricted footprint of the existing driveway and parking area, there are no areas not used for parking, maneuvering, or circulation. These standards do not apply.

i. Outdoor storage areas, service areas (loading docks, refuse deposits, and delivery areas), and above-ground utility facilities shall be buffered and screened to obscure their view from adjoining properties and to reduce noise levels to acceptable levels at the property line. The adequacy of the buffer and screening shall be determined by the criteria set forth in CDC 55.100(C)(1).

Response: None of the listed types of activity areas or facilities is proposed.

j. Crime prevention shall be considered and plant materials shall not be located in a manner which prohibits surveillance of public and semi-public areas (shared or common areas).

Response: No plantings are proposed as part of this project. This standard does not apply.

k. Irrigation facilities shall be located so that landscaped areas can be properly maintained and so that the facilities do not interfere with vehicular or pedestrian circulation.

Response: No plantings or new irrigation facilities are proposed as part of this project. This standard does not apply.

l. For commercial, office, multi-family, and other sites, the developer shall select trees that possess the following characteristics:

1) Provide generous "spreading" canopy for shade.
2) Roots do not break up adjacent paving.
3) Tree canopy spread starts at least six feet up from grade in, or adjacent to, parking lots, roads, or sidewalks unless the tree is columnar in nature.
4) No sticky leaves or sap-dripping trees (no honey-dew excretion).
5) No seed pods or fruit-bearing trees (flowering trees are acceptable).
6) Disease-resistant.
7) Compatible with planter size.
8) Drought-tolerant unless irrigation is provided.
9) Attractive foliage or form all seasons.

Response: No trees are proposed. This standard does not apply.

m. Plant materials (shrubs, ground cover, etc.) shall be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage, staggered flowering periods, and avoidance of nuisance plants (Scotch broom, etc.).

Response: No plantings are proposed. This standard does not apply.

G. Landscaping requirements in water resource areas (WRAs). Pursuant to CDC 32.110(E)(3) the requirements of this chapter relating to total site landscaping, landscaping buffers, landscaping around parking lots, and landscaping the parking lot interior may be waived or reduced in a WRA application without a variance being required.

Response: As noted above, the site meets the requirements for overall landscaping percentage. As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. Due to

the constricted footprint of the existing driveway and parking area, there are no areas not used for parking, maneuvering, or circulation. These standards do not apply.

Chapter 56 Parks and Natural Area Design Review

56.015 Categories of Parks and Natural Resource Facilities

There are eight categories of park and natural resource facilities as established in the Parks Master Plan. The categories are:

1. *Active-oriented parks.*
2. *Passive-oriented parks.*
3. *Special use parks.*
4. *Linear parks/open space.*
5. *City beautification areas.*
6. *Pathways and trails.*
7. *Natural resource areas.*
8. *Multi-use parks.*

Active-oriented parks. Active-oriented parks are developed sites that support recreation opportunities including sports and play with facilities, often featuring restrooms, picnic shelters and tables.

Passive-oriented parks. Passive-oriented parks are more natural sites that provide trail-related recreation opportunities and passive outdoor activities such as wildlife watching, nature interpretation and picnicking. Several sites also provide river views or river access.

Special use parks. Special use parks are single-purpose developed sites that include specialized facilities such as a community center, boat ramp, or fishing dock or other unique use.

Linear parks/Open space. Linear parks are open space areas that often bring together patchworks of City-owned lands, stream corridors, and rights-of-way to create a linear facility whose primary goal is to provide a passive recreation experience.

Limited facilities such as benches and picnic tables may be provided, but these parks are primarily designed as corridors for trails, bike and pedestrian paths. The TPR is often well served by these bike and pedestrian paths. Linear parks also provide important visual relief from the built environment. Given their physical and visual accessibility, and the fact that they can extend long distances through the community and be used by many neighborhoods, linear parks can be one of the best investments that cities can make. Ideally, they will be at least 100 to 200 feet wide; however, critical linkages in the system can be as narrow as 10 to 20 feet if that is what it takes to make the connection. Trailheads at the termini of the park are helpful as are trailheads at regular intervals along the length of the linear park.

City beautification areas and public spaces. City beautification areas are intended to provide for the aesthetic needs of the residents. Rather than a physical experience, these areas provide a visual experience. They can take the form of landscaped entryways to the City, landscaped medians, or street corners. Expanding beyond that definition and the expectations of the Parks Master Plan, this park category shall also include public spaces, such as plazas and squares, where the emphasis is on outdoor concerts, farmers' markets, street fairs, and socialization.

Pathways and trails. Pathways and trails may be incorporated into park facilities, but may also be stand-alone facilities in open space. Communities provide urban paths and trails for their recreational value as well as their value as part of a community's commitment to the TPR. Trails and paths should be developed

to provide linkages between schools, parks, neighborhoods, and the community and even integrate with regional trail systems. An example would be the trails and paths that crisscross the Tanner Basin neighborhood of West Linn and make it possible for children to access school on foot or bicycle in relative safety. Rudimentary gravel foot trails can be three to six feet wide. Paths in high use areas should be in the four- to 10-foot width range and paved. In neighborhoods that are built up with limited space to accommodate the paths or trails, reduced widths and non-traditional designs are encouraged if the alternative is no trail or path at all. Emphasis on providing routes that follow the cognitive patterns of residents is important. Surveillance potential and defensible space are also important considerations.

Natural resource areas. The primary focus is on the long-term protection of natural areas. These natural areas can come in the form of natural drainageways, creeks, wetlands, river greenway areas, habitat protection areas, steep hillsides, significant tree clusters or plant materials, or where the preservation of an open space area provides a visual relief from the images of the built and urbanized environment.

Since the emphasis is upon the protection of the resource, the facilities should be limited. Typically, these facilities include interpretive centers, restrooms, trails, vehicular access, and parking lots. Active recreation facilities, such as organized playing fields, are discouraged. They should only be accommodated if the park is large enough and there is adequate separation between the activity area and the natural resource. At all times, the central philosophy is deference to the natural resource over human needs.

Multi-use parks. Multi-use parks mix developed and natural areas and offer both active and passive recreation opportunities, ranging from active sports to quiet nature strolls. Several of these parks also have amenities and facilities to support large group gatherings and events.

Response: The March 2019 Parks Master Plan, Table 1, identifies Maddax Woods Park as a passive-oriented park. Community recreation facilities, including passive-oriented parks, are a permitted use in the R-10 zone. This standard is met.

56.020 Categories of Parks and Natural Resource Facilities

A. This chapter applies to the development of all new parks and natural resource areas. It also applies to changes including the introduction of new facilities and major repairs at existing parks and natural resource areas. No work, except as exempted in CDC 56.025, may take place in these parks and natural resource areas without first obtaining a permit through this chapter and through the appropriate decision-making body. Chapter 55 CDC, Design Review, shall not apply to park development or structures or facilities in parks. Unless specifically exempted by this chapter, all relevant CDC chapters shall apply.

Response: The applicant is seeking approval to reconstruct vehicle parking at an existing park by replacing the gravel driveway and parking area with permeable paving. Compliance with applicable portions of the CDC is demonstrated through this narrative and supporting documents. This standard is met.

B. There are two classes of Park Design Review – Class I and Class II. Class I park design review applies to minor changes to park facilities. It is reasonable and appropriate that a simpler but more focused set of standards shall apply. Class II park design review applies to the development of any new park or significant changes to an existing park or natural area. The specific submittal standards and approval criteria are explained in CDC 56.070 through 56.100.

Response: Based on a review of the proposed site alterations and discussion at the October 25, 2019, pre-application meeting (PA-19-22), staff has advised the applicant that this project falls under Class I Park Design Review.

C. Class I design review. The following is a non-exclusive list of Class I design review activities or facilities.

4. *Additional recreation amenities or facilities including playground equipment, picnic shelters, and playing fields so long as those facilities are consistent with the program established for the park and the impacts are expected to be minor. (An example of program consistency would be Class I design review of a proposal to add two more swing sets at an active-oriented park; conversely, it would be a Class II if the proposal would add swing sets in a natural resource area.)*
7. *Minor road realignment under 200 feet long. Realignment must not come closer to any existing resource area than it currently is.*

Response: The applicant is seeking approval to reconstruct vehicle parking at an existing park by replacing the gravel driveway and parking area with permeable paving. The proposed scope of work is consistent with subparagraph 4, "additional recreation amenities or facilities including playground equipment, picnic shelters, and playing fields so long as those facilities are consistent with the program established for the park and the impacts are expected to be minor." For many years, Maddax Woods Park has had gravel parking for visitors. The proposed improvements will replace the surfacing by removing gravel and installing pervious paving, improving the quality of facilities but continuing to support the same uses and activities. The pervious paving will better organize the parking area and result in reduced maintenance activity and potential for erosion and wear and tear on public facilities. The work could also fall under subparagraph 7 since it involves minor road improvements no closer to existing resource areas than the current location. The project is therefore eligible for Class I design review approval.

56.070 Submittal Requirements

A. *The design review application shall be initiated by the Parks Director.*

B. *A pre-application conference shall be a prerequisite to the filing of an application.*

1. *The Planning Director shall explain the applicable policies, ordinance provisions, opportunities and constraints which may be applicable to the site and type of proposed development. The Planning Director shall determine which class of park design review is required.*
2. *The following subjects shall be reviewed at the pre-application conference:*
   a. *Identification of the proposed park classification (e.g., active- or passive-oriented park).*
   b. *The appropriate facilities and programs that should be provided according to the park classification.*
   c. *The physical and visual accessibility of the site.*
   d. *The property's location and size, the Comprehensive Plan, zoning, and other possible and applicable ordinance provisions.*
   e. *Consideration of buffers, screening, or direction of lighting.*
   f. *The natural features on the site: topography, drainage courses, microclimate vegetation, and soil conditions and stability.*
   g. *The availability of utilities (on site and off site).*
   h. *Vehicular access, trip generation, and potential traffic problems.*
   i. *The availability of transit, capacity of the road system, and existence of plans for bicycle and pedestrian ways.*
   j. *Conditions placed on previous applications.*
   k. *Review submittal requirements.*
   l. *Preferred architectural design and building orientation.*
   m. *Location of planned activity areas to satisfy functional needs of the park.*
3. *A prerequisite to the filing of an application for a new park or resource area/open space under Class II parks design review is that the Parks Director must demonstrate that the adopted community planning process for parks has been followed. Alternately, the Parks Director will hold a meeting with the respective City-recognized neighborhood association,*

per CDC 99.038, at which time the Parks Director will present the proposal and receive comments. No neighborhood meeting is required for a Class I design review.

4. *The applicant shall submit a completed application form.*
5. *The applicant shall provide the submittal for either a Class I or II park design review as explained in CDC 56.075 or 56.080.*

Response: The applicant for this project is the Parks and Recreation Director. A pre-application meeting was held on October 25, 2019, and staff determined that the project would be subject to Class I Parks and Natural Area Design Review. This standard is met. The required items are provided with this application, except where waivers have been requested per CDC 99.035(B). These standards are met.

56.075 Submittal Standards for Class I Parks and Design Review

A. *The application for a Class I parks design review shall contain the following elements:*
   1. *A site analysis (per CDC 56.110) only if the site is undeveloped.*
   2. *A site plan (per CDC 56.120) is required.*
   3. *Architectural drawings, including building envelopes and all elevations (per CDC 56.140), but only if architectural work is proposed.*
   4. *Pursuant to CDC 56.085, additional submittal material may be required.*
   5. *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 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 Community Development Department.*

Response: Since the site is developed, no site analysis is required. No buildings are proposed so no architectural drawings are provided. The other items are provided with this submittal except where the applicant has requested that the Planning Director waive certain submittal requirements per CDC 99.035(B). This standard is met.

56.085 Additional Information Required and Waiver of Requirements

A. *The Planning Director may require additional information as part of the application subject to the provisions of CDC 99.035(A).*
B. *The Planning Director may waive any requirements for the application at the applicant's request, subject to the provisions of CDC 99.035(B) and (C).*

Response: The applicant has not been advised by Planning staff of any additional information needs. The applicant requests that the Planning Director waive some submittal requirements as authorized by CDC 99.035(B). See Exhibit B. This provision is met.

56.090 Approval Standards – Class I Design Review

The Planning Director shall make a finding with respect to the following criteria when approving, approving with conditions, or denying a Class I design review application:

A. *The provisions of the following sections shall be met:*
   1. *CDC 56.100(C)(1) through (5), Relationship to the natural physical environment, shall apply except in those cases where the proposed development site is substantially developed and built out with no natural physical features that would be impacted.*

   Response: The proposed scope of work consists of replacing the existing gravel driveway and parking area with permeable paved driveway and parking area, within the existing footprint. Therefore, the area of work is substantially developed, and the construction would cause no additional impacts on Water Resource Area or Habitat Conservation Area. As illustrated on Sheet C1.20 of Exhibit J, proposed grades will largely match existing grades, thereby having no further impact on physical features. As discussed in Exhibit M, the proposed activity will have no net

increase in fill within the Special Flood Hazard Area. Therefore, since the proposed construction area is substantially developed and will not impact natural physical features. The provisions of CDC 56.100(C)(1) through (5) do not apply. Nonetheless, the applicant has provided detailed responses to CDC 56.100(C)(1) through (5) below for informational purposes only.

2. *CDC 56.100(D), Facility design and relationship to the human environment, shall only apply in those cases that involve exterior architectural construction, remodeling, or changes.*

Response: CDC 56.100(D) does not apply since no buildings or building alterations are proposed.

3. *Pursuant to CDC 56.085, the Director may require additional information and responses to additional sections of the approval criteria of this section depending upon the type of application.*

Response: The applicant has not been advised by Planning staff of any additional information needs.

B. *The Planning Director shall determine the applicability of the approval criteria in subsection A of this section.*

Response: This provision provides procedural guidance to Planning staff and does not require an evidence submittal by the applicant.

56.100 Approval Standards – Class II Design Review

The approval authority shall make findings with respect to the following criteria when approving, approving with conditions, or denying a Class II parks design review application.

Note: As required by CDC 56.090(A), the applicant has provided detailed responses to CDC 56.100(C)(1) through (5) and CDC 56.100(D).

C. *Relationship to the natural environment.*

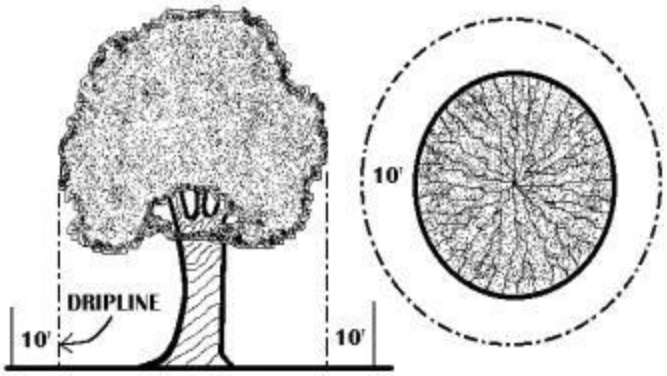
Response: As discussed in the response to CDC 56.090(A)(1), this section does not apply. Nonetheless, the applicant has provided detailed responses to CDC 56.100(C)(1) through (5) below for informational purposes only.

1. *The buildings and other site elements shall be designed and located so that 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 the direction of the City Manager.*

Response: It is the applicant's understanding that the site does not have any Heritage Trees. The applicant does not propose to remove a heritage tree, and none are known to adjoin the proposed area of work. This standard does not apply.

2. *All heritage trees, as defined in the municipal code, and all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of CDC 55.100(B)(2). It is important to acknowledge that all trees are not significant.*
   a. *Areas of the park that include non-Type I and II lands shall protect all heritage trees and all significant trees through the careful layout of streets, building pads,*

playing fields, and utilities. The method for delineating the protected trees or tree clusters ("dripline + 10 feet") is explained in CDC 55.100(B)(2)(a) and in subsection (C)(2)(b) of this section.



b. Areas of the park that include Type I and II lands shall protect all heritage, significant and non-significant trees. Groundcover, bushes, etc., shall be protected and may only be disturbed to allow the construction of trails or accessing and repairing utilities. Exemptions permitted under CDC 55.100(B)(2)(c) through (f) shall apply.

Response: It is the applicant's understanding that the site does not have any Heritage Trees. The applicant does not propose to remove a heritage tree, and none are known to adjoin the proposed area of work. Similarly, no significant trees or significant clusters of trees have been identified in the area of work. The area of proposed construction is classified as Type II lands per CDC 2.030 because it is within the floodway fringe (100-year floodplain), as shown on Exhibit G, Exhibit I, and Sheet C1.10 of Exhibit J. Therefore, if the proposed construction area were not already developed, criterion (b) would require protection of non-significant trees. Non-significant trees are proposed to be protected as illustrated on Sheets C1.10 and C1.20 of Exhibit J, with the exception of a single 22" cottonwood tree proposed for removal due to its proximity to necessary grading operations. Further coordination with the designated arborist is proposed as discussed in Exhibit O. Discussion of the cited provisions of CDC 55.100(B)(2) is provided below:

CDC 55.100(B)(2):

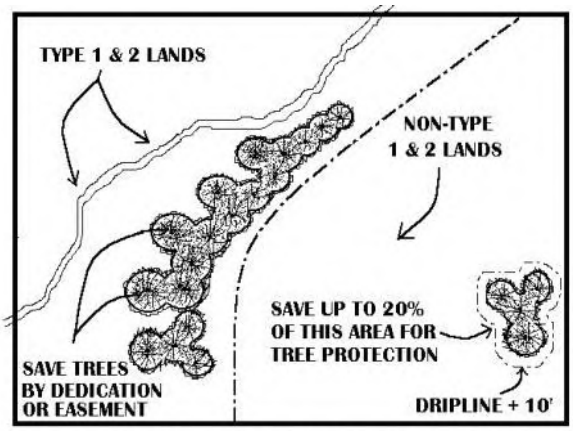
2. All heritage trees, as defined in the municipal code, all trees and clusters of trees ("cluster" is defined as three or more trees with overlapping driplines; however, native oaks need not have an overlapping dripline) that are considered significant by the City Arborist, either individually or in consultation with certified arborists or similarly qualified professionals, based on accepted arboricultural standards including consideration of their size, type, location, health, long term survivability, and/or numbers, shall be protected pursuant to the criteria of subsections (B)(2)(a) through (f) of this section. In cases where there is a difference of opinion on the significance of a tree or tree cluster, the City Arborist's findings shall prevail. It is important to acknowledge that all trees are not significant and, further, that this code section will not necessarily protect all trees deemed significant.

a. Non-residential and residential projects on Type I and II lands shall protect all heritage trees and all significant trees and tree clusters by limiting development in the protected area. The protected area includes the protected tree, its dripline, and an additional 10 feet beyond the dripline, as depicted in the figure below. Development of Type I and II lands shall require the careful

layout of streets, driveways, building pads, lots, and utilities to avoid heritage trees and significant trees and tree clusters, and other natural resources pursuant to this code. The method for delineating the protected trees or tree clusters ("dripline plus 10 feet") is explained in subsection (B)(2)(b) of this section. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply.

Response: The site is classified as Type II land, and it is the applicant's understanding that it does not have any Heritage Trees or trees or tree clusters deemed significant by the City Arborist. While the code does not require protection of non-significant trees since the construction area is already developed, the project arborist has recommended protecting trees over 12" DBH (see Exhibit O). It is not possible to protect the dripline plus 10 feet since the existing driveway and parking area—which is proposed to be resurfaced by this project—is already within that boundary in relation to multiple trees. Non-significant trees are instead proposed to be protected as illustrated on Sheets C1.10 and C1.20 of Exhibit J, with the exception of a single 22" cottonwood tree proposed for removal due to its proximity to required grading operations. Further coordination with the arborist is anticipated to take place during the construction phase.

b. Non-residential and residential projects on non-Type I and II lands shall set aside up to 20 percent of the area to protect trees and tree clusters that are determined to be significant, plus any heritage trees. Therefore, in the event that the City Arborist determines that a significant tree cluster exists at a development site, then up to 20 percent of the non-Type I and II lands shall be devoted to the protection of those trees, either by dedication or easement. The exact percentage is determined by establishing the driplines of the trees or tree clusters that are to be protected. In order to protect the roots which typically extend further, an additional 10-foot measurement beyond the dripline shall be added. The square footage of the area inside this "dripline plus 10 feet" measurement shall be the basis for calculating the percentage (see figure below). The City Arborist will identify which tree(s) are to be protected. Development of non-Type I and II lands shall also require the careful layout of streets, driveways, building pads, lots, and utilities to avoid significant trees, tree clusters, heritage trees, and other natural resources pursuant to this code. Exemptions of subsections (B)(2)(c), (e), and (f) of this section shall apply. Please note that in the event that more than 20 percent of the non-Type I and II lands comprise significant trees or tree clusters, the developer shall not be required to save the excess trees, but is encouraged to do so.



METHOD OF PERCENTAGE CALCULATION

E.G., DRIPLINE + 10 FT. AREA = 2,500 SQ. FT. OR 18% OF TOTAL NON-TYPE I AND II LAND DENSITY CALCULATIONS FOR THIS PARCEL WILL BE BASED ON REMAINING NET SQ. FOOTAGE OF SITE (EXCLUDING THE 2,500 SQ. FT.)

Response: This provision is applicable to non-Type I and non-Type II lands, but the site is classified as Type II land. This standard does not apply.

c. *Where stubouts of streets occur on abutting properties, and the extension of those streets will mean the loss of significant trees, tree clusters, or heritage trees, it is understood that tree loss may be inevitable. In these cases, the objective shall be to minimize tree loss. These provisions shall also apply in those cases where access, per construction code standards, to a lot or parcel is blocked by a row or screen of significant trees or tree clusters.*

Response: The proposed development will not result in the extension of existing street stubouts. This standard does not apply.

d. *For both non-residential and residential development, the layout shall achieve at least 70 percent of maximum density for the developable net area. The developable net area excludes all Type I and II lands and up to 20 percent of the remainder of the site for the purpose of protection of stands or clusters of trees as defined in subsection (B)(2) of this section.*

Response: The proposed replacement surfacing for the existing driveway and parking area causes no change in the maximum density or developable net area. This standard does not apply.

e. *For arterial and collector street projects, including Oregon Department of Transportation street improvements, the roads and graded areas shall avoid tree clusters where possible. Significant trees, tree clusters, and heritage tree loss may occur, however, but shall be minimized.*

Response: The proposed development does not involve an arterial or collector street project. This standard does not apply.

f. *If the protection of significant tree(s) or tree clusters is to occur in an area of grading that is necessary for the development of street grades, per City construction codes, which will result in an adjustment in the grade of over or under two feet, which will then threaten the health of the tree(s), the*

applicant will submit evidence to the Planning Director that all reasonable alternative grading plans have been considered and cannot work. The applicant will then submit a mitigation plan to the City Arborist to compensate for the removal of the tree(s) on an "inch by inch" basis (e.g., a 48-inch Douglas fir could be replaced by 12 trees, each four-inch). The mix of tree sizes and types shall be approved by the City Arborist.

Response: No identified significant trees or significant tree clusters are on site. No changes are proposed to the street grades. This standard does not apply.

3. *In the case of natural resource areas, the topography shall be preserved to the greatest degree possible. Conversely, in non-natural resource areas, it is recognized that in order to accommodate level playing fields in an active-oriented park, extensive grading may be required, and the topography may be modified.*

Response: The area of work is near wetlands and streams. As shown on Sheet C1.20 of Exhibit J, the proposed grades will match existing grades, so existing topography will be preserved. This standard is met.

4. *The structures shall not be located in areas subject to slumping and sliding. The Comprehensive Plan Background Report's Hazard Map, or updated material as available and as deemed acceptable by the Planning Director, shall be the basis for preliminary determination.*

Response: As no structures are proposed as part of this project, this standard does not apply. Furthermore, information from the Oregon Department of Geology and Minerals does not depict the proposed construction area as the location of a slide. Exhibit D depicts the subject property overlaid by mapping of steep slopes, landslide deposits, and scarp flanks, demonstrating that the proposed area of work is not located within an identified slide area. The proposed work is consistent with the intent of this provision.

5. *The park shall be designed in such a way as to take advantage of scenic views and vistas from the park site, as long as such views can be obtained without eliminating significant trees or other natural vegetated areas.*

Response: The existing Maddax Woods Park is oriented toward the Willamette River corridor, which is the site's scenic view opportunity. The proposed driveway and parking improvements do not alter the park's configuration or impede scenic views. No significant trees or other natural vegetated areas are proposed for removal. The proposed development is consistent with maintaining the site's best view opportunities, consistent with this provision.

D. *Facility design and relationship to the human environment.*

1. *Architecture. Whereas most park buildings are small in size and compatible with existing structure(s) on site and on adjoining sites, the possibility of larger facilities exists. Larger buildings are defined as those over 1,000 square feet and under 10,000 square feet in size. In those cases, contextual design is required. "Contextual design" means respecting and incorporating prominent architectural styles, building lines, roof forms, rhythm of windows, building scale and massing, materials and colors of surrounding buildings in the proposed structure. Also important is breaking the larger building into smaller visual components so that the mass of the building is not so apparent. This is especially relevant when the building is near the perimeter of the park. However, certain uses, by virtue of their functional and spatial requirements, are large and can never be made visually equal or even compatible with nearby homes. Such uses shall not be prohibited from locating at active-oriented park facilities on architectural grounds so long as the applicant's architect*

has broken down the building's horizontal plane into smaller visual components and stepped down the building at the end closest to the off-site structure(s). "Smaller visual components" shall be defined as changes in the horizontal plane every 100 feet created by indentations or pop-outs at least three feet in depth. "Stepping down" shall be defined as bringing the park building's end section that is closest to off-site dwellings to half the distance between the highest ridgeline of the park structure and the highest ridgeline of the nearest off-site structure. In those cases where visual component breakdown or stepping down is not feasible, the applicant may rely on transitions in terms of distance as reasonable mitigation between on- and off-site buildings. An appropriate minimum distance to achieve mitigation shall be either 150 feet or an existing public right-of-way.

2. *Material. Park structures shall emphasize natural materials such as exposed timbers, wood with brick and stone detail. Colors are subdued earth tones: grays, brown, off-whites, black, slate, and greens.*
3. *Human scale is a term that seeks to accommodate the users of the building and the notion that buildings should be designed around the human scale (e.g., average range of human perception). For large buildings, defined as over 1,000 square feet and less than 10,000 square feet in size, human scale shall be accommodated by, for example, multi-light windows that are broken up into numerous panes, intimately scaled entryways, visual breaks (exaggerated eaves, indentations, belly boards, ledges, cornices, awnings, engaged columns, etc.) in the facades of buildings, both vertically and horizontally, but particularly within the first 10 to 15 feet as measured vertically.*
4. *Transparency. For all enclosed buildings in the park, with the exception of public restrooms, storage and utility buildings, the main/front building elevation shall provide at least 60 percent windows or transparency at the pedestrian level to create a more interesting building elevation, allow natural/ambient interior lighting and enhance defensible space. One side elevation shall provide at least 30 percent transparency. Transparency on other elevations is optional. The transparency is measured in lineal fashion. For example, a 100-foot long building elevation shall have at least 60 feet (60 percent of 100 feet) in length of windows. The window height shall be, at minimum, three feet tall. The exception to transparency would be cases where demonstrated functional constraints or topography restrict that elevation from being used. When this exemption is applied to a building elevation(s), the square footage of transparency that would ordinarily be required by the above formula shall be installed on the remaining elevations in addition to any transparency required by a side elevation, and vice versa. The transferred transparency is not required to be at pedestrian level and may be incorporated into clerestories or dormers. The rear of the building is not required to include transparency. The transparency must be flush with the building elevation.*

Response: CDC 56.100(D) does not apply since no buildings or building alterations are proposed.

56.110 Site Analysis

The site analysis shall include:

A. *A vicinity map showing the location of the property in relation to adjacent properties, roads, pedestrian and bike ways, transit stops and utility access.*
B. *A site analysis on a drawing at a suitable scale (in order of preference, one inch equals 10 feet to one inch equals 30 feet) which shows:*
    1. *The lot or parcel boundaries, dimensions, and gross area.*
    2. *Contour lines at the following minimum intervals:*
        a. *Two-foot intervals for slopes from zero to 25 percent; and*
        b. *Five- or 10-foot intervals for slopes in excess of 25 percent.*

3. *The location and width of adjoining streets.*
4. *The drainage patterns and drainage courses on the site and on adjacent lands.*
5. *Potential natural hazard areas including:*
    a. *Floodplain areas;*
    b. *Areas subject to a high water table;*
    c. *Landslide areas; and*
    d. *Areas having a high erosion potential.*
6. *Resource areas including marsh and wetland areas.*
7. *The site features including:*
    a. *Large rock outcroppings;*
    b. *Areas having unique views; and*
    c. *Streams and stream corridors.*
8. *Potential historic landmarks and registered archaeological sites. The existence of such sites on the property shall be verified from records maintained by the Community Development Department and other recognized sources.*
9. *The location of trees having a six-inch caliper at five feet and where the site is heavily wooded, an aerial photograph at the same scale as the site analysis may be submitted and only those trees that will be affected by the proposed development need be sited accurately (e.g., construction activity within the dripline of the trees). All significant trees and tree clusters identified by the City Arborist using the criteria of CDC 56.100(C)(2) and all heritage trees shall be delineated.*
10. *Identification information including the name and address of the owner, developer, and project designer and a lineal scale and north arrow.*

Response: The maps in Exhibits C, D, E, F, G, and I and the plans in Exhibit J provide site information. Additional site analysis is not warranted for this proposal because the proposed resurfacing of the existing driveway and parking area does not expand the extent of the existing developed area. Per Section 56.075, the submittal standards for Class I Parks and Design Review require a site analysis per CDC 56.110 only if the site is undeveloped. Since this site is already developed and the proposed driveway and parking area will be in the same location as the existing driveway and parking area, no Site Analysis is required for this application. This standard does not apply.

56.120 The Site Plan

The site plan shall be at the same scale as the site analysis (CDC 56.110) and shall show:

A. *The applicant's entire property and the surrounding property to a distance sufficient to determine the relationship between the applicant's property and proposed development and adjacent property and development.*
B. *Boundary lines and dimensions for the perimeter of the property and the dimensions for all proposed lot lines, section lines, corners, and monuments.*
C. *Streams and stream corridors.*
D. *Identification information, including the name and address of the owner/applicant and project designer and a lineal scale and north arrow.*
E. *The location, dimensions, and names of all:*
    1. *Existing and platted streets and other public ways and easements on adjacent property and on the site;*
    2. *Proposed streets or other public ways, easements, on the site.*
F. *The location, dimensions, and setback distances of all:*
    1. *Existing structures, improvements, and utility facilities on adjoining properties;*
    2. *Existing structures, improvements, and utility facilities to remain on the site;*
    3. *Proposed structures, improvements, and utility facilities on the site.*
G. *The location and dimensions of:*

1. *The entrances and exits to the site;*
2. *The parking and circulation areas;*
3. *Loading and service areas for waste disposal, loading, and delivery;*
4. *Pedestrian and bicycle circulation areas;*
5. *All utilities; and*
6. *Sign locations.*

H. *The location of areas to be landscaped.*

I. *The location and type of outdoor light with specific consideration given to crime prevention.*

J. *Submit an engineering noise control plan by a licensed acoustical engineer to satisfy the noise standards as identified in CDC 55.100(D), in cases where proposed land use can reasonably be expected to generate noise. A reasonable alternative to commissioning a noise study to determine the noise levels of, for example, a children's soccer league, would be to either locate the potential noise source away from residential properties, to limit activity hours and/or not to provide illuminated playing fields or ball courts.*

Response: The maps in Exhibits C, D, E, F, G, and I and the plans in Exhibit J provide site information. Extensive site documentation is not warranted for this proposal because the proposed resurfacing of the existing driveway and parking area does not expand the extent of the developed area. The applicant has requested that the Planning Director waive submittal of lighting information as discussed in Exhibit B. No engineering noise control plan is needed since the parking improvements will not result in additional noise generation. This standard is met.

56.130 Grading and Drainage Plans

For Type I, II and III lands (refer to definitions in Chapter 02 CDC), a registered civil engineer must prepare a grading plan and a storm detention and treatment plan pursuant to CDC 92.010(E), at the same scale as the site analysis (CDC 56.110), and a statement that demonstrates:

A. *The location and extent to which grading will take place indicating general contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed.*

B. *Repealed by Ord. 1622.*

C. *All proposed storm detention and treatment facilities comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards, there will be no adverse off-site impacts caused by the development (including impacts from increased intensity of runoff downstream or constrictions causing ponding upstream), and there is sufficient factual data to support the conclusions of the plan.*

D. *Per CDC 99.035, the Planning Director may require the information in subsections A, B and C of this section for Type IV lands if the information is needed to properly evaluate the proposed site plan.*

E. *Tables and maps identifying acreage, location and type of development constraints due to site characteristics such as slope, drainage and geologic hazards. For Type I, II and III lands (refer to definitions in Chapter 02 CDC), the applicant must provide a geologic report, with text, figures and attachments as needed to meet the industry standard of practice, prepared by a certified engineering geologist and/or a geotechnical professional engineer, that includes:*
   1. *Site characteristics, geologic descriptions and a summary of the site investigation conducted;*
   2. *Assessment of engineering geological conditions and factors;*
   3. *Review of the City of West Linn's Natural Hazard Mitigation Plan and applicability to the site; and*
   4. *Conclusions and recommendations focused on geologic constraints for the proposed land use or development activity, limitations and potential risks of development, recommendations for mitigation approaches and additional work needed at future development stages including further testing and monitoring.*

F. Identification information, including the name and address of the owner, developer, project designer, and the project engineer.

Response: The area of proposed construction is classified as Type II lands per CDC 2.030 because it is located within the floodway fringe (100-year floodplain), as shown on Exhibit G, Exhibit I, and Sheet C1.10 of Exhibit J. Therefore, a grading plan is included as Sheet C1.20 of Exhibit J. The proposed construction is to replace existing gravel driveway and parking area with a permeable paved driveway and parking area. The storm runoff characteristics of the new surfacing will not differ substantially from existing conditions. The applicant requests that the Planning Director waive the geologic report submittal requirement pursuant to CDC 99.035(B). See Exhibit B. This standard is met.

56.140 Architectural Drawings

Architectural drawings shall be submitted showing:

A. Building elevations and sections;

B. Building materials: color and type;

C. The name of the architect or designer.

Response: No buildings or building alterations are proposed. This standard does not apply.

56.150 Landscape Plan

A. The landscape plan shall include the following:

1. Existing trees, shrubs, plants and groundcover that will be retained as well as an indication of those trees and landscaping that will be removed.

2. Generalized landscape plan showing areas to be landscaped in the new park plan. Showing that an area will be planted with shrubs or evergreen groundcover is sufficient. (It is not necessary to provide plant detail; for example, five-gallon ferns at four feet on center, etc.)

3. Statement that the landscaping will be irrigated.

4. The location of buffering or screening materials (e.g., fences).

5. The location of playing fields (identify type of activity, if known), picnic shelters, play areas, etc.

6. Building and pavement outlines.

B. The landscape plan shall be accompanied by:

1. Planting schedule.

2. Supplemental information as required by the Planning Director or City Arborist.

Response: As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. No new plantings are proposed. Considering the limited scale and potential impacts of the proposed improvements, the applicant requests that the Planning Director waive this submittal requirement pursuant to CDC 99.035(B). See Exhibit B.

Chapter 92 Required Improvements

92.010 Public Improvements for All Development

E. Storm detention and treatment. For Type I, II and III lands (refer to definitions in Chapter 02 CDC), a registered civil engineer must prepare a storm detention and treatment plan, at a scale sufficient to evaluate all aspects of the proposal, and a statement that demonstrates:

1. The location and extent to which grading will take place indicating general contour lines, slope ratios, slope stabilization proposals, and location and height of retaining walls, if proposed.

2. *All proposed storm detention and treatment facilities comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards.*
3. *There will be no adverse off-site impacts, including impacts from increased intensity of runoff downstream or constrictions causing ponding upstream.*
4. *There is sufficient factual data to support the conclusions of the plan.*
5. *Per CDC 99.035, the Planning Director may require the information in subsections (E)(1), (2), (3) and (4) of this section for Type IV lands if the information is needed to properly evaluate the proposed site plan.*

Response: The area of proposed construction is classified as Type II lands per CDC 2.030 because it is located within the floodway fringe (100-year floodplain), as shown on Exhibit G, Exhibit I, and Sheet C1.10 of Exhibit J. Therefore, a grading plan is included as Sheet C1.20 of Exhibit J. The proposed construction is to replace existing gravel driveway and parking area with a permeable driveway and parking area. The storm runoff characteristics of the new surfacing will not differ substantially from existing conditions. Therefore, no storm detention and treatment plan has been prepared. The applicant requests that the Planning Director waive this submittal requirement pursuant to CDC 99.035(B). The project does not increase impervious area (see Exhibit N) and does not merit a full detention and treatment plan (per Section 2.0041 of the Public Works Design Standards, the threshold is 1,000 SF of newly created impervious area, including replacement of existing impervious area[1]). This standard is met.

Chapter 96 Street Improvement Construction

96.010 Construction Required

A. *Street improvements for residential construction are required when:*
   1. *Construction of a new single-family attached or detached structure (Replacement of an existing structure is exempt); or*
   2. *Replacement of a single-family home increases the square feet by 50 percent or greater; or*
   3. *Construction of a new multi-family structure; or*
   4. *Increase in dwelling unit density on-site (Accessory Dwelling Units are exempt).*

B. *Street improvements for commercial construction are required when:*
   1. *Construction of a new commercial structure; or*
   2. *Remodel of an existing commercial structure with an increase in floor area that requires additional parking; or*
   3. *Change in use that requires additional parking; or*
   4. *Construction that increases the dwelling unit density on-site; or*
   5. *Construction which requires a change in type, number, or location of accessways; or*
   6. *Replacement of an existing structure that requires additional parking.*

Response: The applicant is proposing to replace the existing gravel driveway and parking area with permeable paving driveway and parking area. The proposed scope of work does not fall within the list of types of nonresidential construction that trigger a requirement for street improvements. The applicant is proposing limited improvements to the existing driveway within the right-of-way, but the project does not add capacity or result in increased site visits that would create a nexus for the City to require right-of-way improvements to comply with public works standards under this provision. This standard does not apply.

[1] The 2020 Stormwater Master Plan states that the threshold in Section 2.0041 of the Public Works Design Standards is 500 SF, but the online version of the Public Works Design Standards specifies a 1,000 SF threshold.

Chapter 99 Procedures for Decision Making: Quasi-Judicial

99.035 Additional Information Required, Waiver of Requirements and Report Required

A. The Planning Director may require information in addition to that required by a specific chapter in the Community Development Code; provided, that:

1. The chapter expressly authorizes that additional information may be required;

2. The information is needed to properly evaluate the proposed site plan or proposal; and

3. The need can be justified on the basis of a special or unforeseen circumstance.

Response: The applicant has not received a request for additional information from the Planning Director. This provision is not applicable.

B. The Planning Director may waive a specific requirement for information or a requirement to address a certain approval standard subject to the provisions of subsection C of this section provided:

1. The Planning Director finds that specific information is not necessary to properly evaluate the application; or

2. The Planning Director finds that a specific approval standard is not applicable to the application.

Response: Due to the limited scale and impacts of the proposed resurfacing of existing gravel driveway and parking areas with pervious paving, the applicant has requested that the Planning Director waive certain submittal requirements, such as detailed site inventory/analysis, landscape planting plans, geologic report, etc., as more specifically identified in Exhibit B. Based on the limited areal extent of the proposed improvements, replacement of existing gravel surfaces, the relatively level location, and other existing conditions where the improvements are proposed, there is no reason to anticipate significant impacts requiring detailed inventory and analysis of those items.

C. Where a requirement is waived, the Planning Director shall cite in the staff report on the application the specific requirements waived and the reasons for the waiver. The decision of the Planning Director to waive the requirement is subject to review and denial by the approval authority or the appeal authority.

Response: This provides direction to the Planning Director and requires no action from the applicant.

99.038 Neighborhood Contact Required for Certain Applications

Prior to submittal of an application for any subdivision, conditional use permit, multi-family project, planned unit development of four or more lots, non-residential buildings over 1,500 square feet, or a zone change that requires a Comprehensive Plan amendment, the applicant shall contact and discuss the proposed development with any affected neighborhood as provided in this section. Although not required for other or smaller projects, contact with neighbors is highly recommended. The Planning Director may require neighborhood contact pursuant to this section prior to the filing of an application for any other development permit if the Director deems neighborhood contact to be beneficial.

Response: The proposed reconstruction of the driveway and parking areas is not a type of development requiring a pre-submittal neighborhood contact as it merely replaces the existing surfacing. Neighborhood contact is therefore not a pre-submittal requirement.

99.070 Consolidation of Proceedings

A. When an applicant requests more than one approval, and more than one approval authority is required to decide the applications, the proceedings shall be consolidated so that one approval authority shall decide all applications in one proceeding. In such cases, the hearings shall be held by the approval authority having original jurisdiction over one of the applications under CDC

99.060, in the following order of preference: City Council, Planning Commission or Historic Review Board, or the Planning Director.

1. However, expedited land division applications shall be processed as described in Chapter 197 ORS, regardless of the number of approvals requested.

Response: The applicant requests consolidated processing of the land use actions requested in this application package.

B. When an applicant requests to undertake preliminary work, for site preparation or analysis, the Director may allow decisions within the Director's authority to precede the subsequent decision required for review by the decision-making body.

Response: This application does not include a request to undertake preliminary work prior to obtaining all necessary land use approvals.

IV. CONCLUSION

Based on the information presented and discussed in this narrative and the attached supporting plans and documentation, this application meets applicable standards necessary for land use approval. The proposed development complies with applicable standards of the West Linn Community Development Code and furthers the City's objectives of promoting recreational opportunities in a manner that protects sensitive natural resources. The applicant respectfully requests approval by the City.

Planning & Development • 22500 Salamo Rd #1000 • West Linn, Oregon 97068
Telephone 503.656.3535 • westlinnoregon.gov

FLOODPLAIN DEVELOPMENT APPLICATION

For Office Use Only			
Staff Contact	Permit No.		Project
Non-Refundable Fee(s)	Refundable Deposit(s)	Total	

Overview

In accordance with City of West Linn floodplain management regulations (West Linn Community Development Code Chapter 27), development within the West Linn regulatory floodplain must comply with the standards within Chapter 27. The regulatory floodplain is the Special Flood Hazard Area (SFHA) as defined on the currently effective Flood Insurance Rate Maps for West Linn and the area of inundation for the February 1996 flood.

Before filling out this permit, complete the following checklist:

Location of Development:

1. Is the property that the proposed development activity will occur on at least partially within (horizontally within) the community's regulatory floodplain?
   - ☒ Yes
   - ☐ No, (If the answer is "No" then a floodplain development permit is NOT required)

2. Is the site where the proposed development activity will occur on the property at least partially within (horizontally within) the community's regulatory floodplain?
   - ☐ Yes
   - ☒ No, (If the answer is "No" then a floodplain development permit is NOT required)

3. Has FEMA, through a Letter of Map Change (LOMC) (i.e. LOMA, LOMR-F, LOMR), made a formal determination that this property or proposed development site is out of the regulatory floodplain?
   - ☐ Yes, (If the answer is "Yes" then a floodplain development permit is NOT required but a copy of the LOMC must be kept in the permitting records.)
   - ☒ No

Section I: General Provisions

The undersigned hereby makes application for a permit to develop in a designated floodplain area. The work to be performed is described below and in attachments hereto. The undersigned agrees that all such work shall be done in accordance with the requirements of the City of West Linn and West Linn Community Development Code Chapters 27 and all other applicable local, state and federal regulations. This application does not create liability on the part of the City of West Linn or any officer or employee thereof for any flood damage that results from reliance on this application or administrative decision made lawfully hereunder.

1. When the community's floodplain regulatory standards apply to a proposed development activity, no work of any kind may begin in a regulatory floodplain area until a floodplain development permit is issued.
2. The permit may be revoked if any false statements are made herein. If revoked, all work must cease until a permit is re-issued.
3. The permit will expire if no work is commenced within 180 days of the date of issue.
4. The permit will not be issued until any other necessary local, state, or federal permits have been obtained (approved).

Property Owner(s):*

City of West Linn Parks and Recreation
Attn: Ken Warner, Director

Mailing Address: 22500 Salamo Road

West Linn, OR 97068

Phone number: (503) 742-6047
Fax number: (503) 656-3701
Email: kwarner@westlinnoregon.gov

☒ **Check box if Property Owner is Applicant**

Applicant:

Mailing Address:

Phone number:
Fax number:
Email:

**All property owners must be listed.*

Section II: Development Proposal Information

PROJECT LOCATION

Address of Property: 5785 River Street, West Linn, OR 97068

Lot: _____ Subdivision: West Oregon City Block: _____

Township, Range, Section: Township 2S, Range 2E, Section 30

(To avoid delay in processing the application, please provide enough information to easily identify the project location. A map or sketch attached to this application showing the project location is required.)

☐ the proposed development is NOT located horizontally within the Special Flood Hazard Area.*

☐ the property is partially located horizontally within the Special Flood Hazard Area, but the proposed development activity site is NOT.*

If this box is checked then a floodplain development permit may not be required. Speak to community staff before completing the rest of this permit application.

PROJECT DESCRIPTION

A.* Structural Development *(Check all that apply)

Activity

☐ New Structure
☐ Addition*
☐ Alteration (includes repairs or improvements)*
☐ Relocation**
☐ Demolition
☐ Replacement

☐ Residential: ☐ Single, ☐ Two-Family, or ☐ Multi-Family (3+)
☐ Non-Residential: ☐ Elevated, ☐ Floodproofed
☐ Combined Use (Residential and Non-Residential)
☐ Manufactured Home
☐ Recreational Vehicle (RV)
☐ Garage: ☐ Attached, ☐ Detached
☐ Appurtenant/Accessory Structure
☒ Other (please specify): Driveway & Parking improvements

Structure Type

**An alternation includes the repair or improvement of a structure. If the value of an addition or alteration to a structure equals or exceeds 50% of the value of the structure before the addition or alteration, the entire structure must be treated a substantially improved structure.*
***A relocated structure must be treated as new construction.*

B.* Other Development *(Check all that apply)

☐ Clearing ☒ Fill ☐ Mining ☐ Drilling ☒ Grading ☐ Dredging
☒ Excavation or Removal of Fill (Except for Structural Development Checked Above)
☐ Watercourse Alteration ☐ Drainage Improvement (including culvert work)
☐ Individual water or Sewer System ☒ Road, Street, or Bridge Construction
☐ Fencing ☐ Utilities
☐ Subdivision (New Or Expansion), Partition, Master Plan, or Planned Unit Developments
☐ Other (Please Specify): _____

FLOOD HAZARD INFORMATION

1. The proposed development is located on FIRM Panel: 41005C0276D (number and suffix), Dated: 6/17/2008

2. The proposed development is located partially or fully within the horizontal boundaries of the Special Flood Hazard Area, Zone(s): AE (A, A1 -30, AE, AO, AH, AR, A99, V, V1-30, or VE)

3. The one-percent-annual chance (100 year) flood elevation at this site is: 47.5 ft NGVD 29 / NAVD 88 (circle the correct datum),
source: FIRM 41005C0276D ☐ None Available

4. Is the proposed development located partially or fully within a designated Floodway: ☐ Yes ☒ No
If "Yes", then is this proposal for:
Temporary encroachment (less than 30 days – outside of flood season (November – March)
Fish habitat restoration or enhancement*
Fence (type and material: _____)
**For habitat restoration projects a rise in elevation may be allowed if a CLOMR is approved by FEMA. Permit shall not be issued, until FEMA approval is received.*

5. If "Yes" was answered to (4.) above, then is a "No Rise Certification" with supporting engineering hydrologic and hydraulic data attached? ☐ **Yes** ☐ **No**

6. Are other federal, state, or local permits required? ☐ **Yes** ☒ **No**
If yes, which ones: _____

Section III. Additional Information Required *(Complete all that apply)*

1. Complete for Proposed Structures and Building Sites:

A. Base Flood Elevation at this site:_____ft (NGVD 29/NAVD 88).
B. Elevation of highest adjacent grade:_____ft (NGVD 29/NAVD 88).
C. Required Elevation of lowest floor* (including basement):_____ft (NGVD 29/NAVD 88).
D. Proposed Elevation of lowest floor* (including basement):_____ft (NGVD 29/NAVD 88).
E. Elevation of next highest floor:_____ft (NGVD 29/NAVD 88).
F. Elevation of top of proposed garage slab, if any:_____ft (NGVD 29/NAVD 88).
G. Details for anchoring structures (type of anchoring used and location of anchoring):
_____
_____
H. Details of floodproofing or elevation of utilities. Provide the elevation of the utilities or the elevation to which the utilities were floodproofed. If floodproofed, provide details regarding how the utilities were floodproofed (describe the type of floodproofing used or manner in which the utilities were floodproofed):
_____
_____
I. Exact location(s) on structure of all flood openings, if required. Include the elevation of the bottom of the flood opening(s), the size of the openings, and note if engineered flood opening(s) will be used. (Provide a reference diagram, in site plan or drawings):
_____
_____
J. Types of water-resistant materials used below the first-floor and portions of the structure they were applied to:
_____
_____

**lowest floor is defined as: the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure (such as a crawlspace), usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is built in compliance with the required floodplain and building code regulations including but not limited to flood venting requirements.*

2. Complete for Alterations or Additions to Existing Structures:

Please complete **Appendix A** of the West Linn floodplain development permit and enter the cost of the proposed construction* here: $_____

***PLEASE NOTE:** Cost of construction estimates must include all structural elements, interior finish elements, utility and service equipment, labor and other costs associated with demolishing, removing, or altering building components, and construction management. As well as any improvements being made to repair damage that go beyond just making repairs to return to pre-damaged conditions.

3. Complete for Non-Residential Floodproofed Construction:

A. Type of floodproofing method: _____
B. Required floodproofing elevation is:_____feet NGVD.
C. Floodproofing certification by a registered engineer attached?
⎦ **Yes** ⎦ **No**

4. Complete For Partitions, Subdivisions, Master Plan, Or Planned Unit Developments:

A. Will the subdivision or other development contain 50 lots or 5 acres?
⎦ **Yes** ⎦ **No**
B. If "Yes", does the plat or proposal clearly identify base flood elevations?
⎦ **Yes** ⎦ **No**
C. Are the 100 year Floodplain and Floodway delineated on the site plan?
⎦ **Yes** ⎦ **No**

5. Complete for Proposals NOT Included in 1-4 Above:

A. For all watercourse relocations and/or landform alterations include plans showing the proposed relocation and/or alterations.
B. If the proposed development activity will result in a change in water elevation, then what is the change in water elevation (in feet)_____increase/decrease (circle whichever applies).
C. For stream habitat restoration that impacts a mapped floodway, provide copy of "no-rise certification" from registered professional engineer or a FEMA approved CLOMR.
D. Amount of fill to be placed___9,274 CF fill, offset by 9,274 CF cut, for net fill of 0_____.
i. Top of new compacted fill elevation_match existing_____ft. (NGVD29/NAVD 88)

6. Required Attachments:

A. A site plan drawn to scale, with elevations of the project area and the nature, location, dimensions of existing and/or proposed structures, earthen fill placement, storage of materials or equipment and drainage facilities. Plans shall include location of all water bodies, adjacent roads, lot dimensions, as well as, delineation of Special Flood Hazard Areas, regulatory Floodway boundaries including Base Flood Elevations (when available), or flood depth in AO zones.
B. Copies of all required local, state, and federal permits. All required local, state, and federal permits must be approved before the floodplain development permit is approved.
C. (OPTIONAL) A complete pre-construction Elevation Certificate signed and sealed by a registered professional surveyor.

D. Certification from a registered professional engineer that any proposed non-residential floodproofed structure will meet the floodproofing criteria of CDC Chapters 27 and Oregon Specialty Code requirements, if applicable.
E. Other documentation as required per the above sections.

Section IV: Property Owner and Applicant Signatures

I/We hereby request a Floodplain Development Permit on the above described real property, located within West Linn, Oregon. I/We hereby acknowledge that this application is not considered filed, until all of the required information has been submitted as determined by the floodplain administrator and all required fees have been paid in full.

Property Owner(s)*

Signature(s): _____, _____
Name(s) (print): Ken Warner, City of West Linn Parks and Recreation Director
Date: 10/11/2023

x] **Tick box if the Property Owner is the Applicant.**

Applicant

Signature: _____
Name (print): Ken WARNER
Date: 10/11/2023

This application is only for Floodplain Development Permit. Building Permits and any other permits require separate applications.

**All property owners must sign. The signature is an acknowledgement and consent to this floodplain development permit application.*

Section V: OFFICE USE ONLY

APPLICATION PROCESSING

Date Application Received:_____Initials: _____

Date Application Complete:_____Initials: _____

Applicant Notified of Completeness:_____Initials: _____

Fee Paid:_____Receipt No._____Initials: _____

SUBSTANTIAL IMPROVEMENT REVIEW

The formula for substantial improvement threshold is as follows:

Market Value X 50% (.50) = Substantial Improvement Threshold

1. What is the market value (based on current Assessor data) of the existing structure prior to damage/improvement? $_____
2. What is 50% of the estimated market value of the existing structure prior to damage/improvement (use the formula provided above) $_____
3. Has Appendix A been completed?
   ⎫ **Yes** ⎫ **No**
4. Does the total cost of the proposed construction noted in Appendix A match the cost of the proposed construction provided in Section III.(2.)(A.)?
   ⎫ **Yes** ⎫ **No**
5. What is the cost of the proposed construction* (provided in both Section III.(2.)(A.) and Appendix A)? $_____
6. Is the value listed in line "3." of this section, equal to or greater than the value listed in line "2."?
   ⎫ **Yes, (If "Yes", then the proposed development activity qualifies as a substantial improvement*).**
   ⎫ **No**
7. Does the proposed development activity qualify as a substantial improvement*?
   ⎫ **Yes** ⎫ **No**

**Construction cost estimates must include all structural elements, interior finish elements, utility and service equipment, labor and other costs associated with demolishing, removing, or altering building components, and construction management. As well as any improvements being made to repair damage that go beyond just making repairs to return to pre-damaged conditions.*

***If the cost of the proposed construction equals or exceeds 50 percent of the market value of the structure, then the entire structure must be treated as a substantially improved structure and the substantial improvement provisions shall apply. See FEMA publication P-758, Substantial Improvement/Substantial Damage Desk Reference for more information regarding substantial improvement.*

APPLICATION DETERMINATION

The proposed development activity is determined to be in conformance with the provisions of the community's floodplain regulations (CDC Chapters 27).

⌋ **YES** ⌋ **NO**

If Yes, then this permit is issued, subject to the following conditions, attached to and made part of this permit:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Signed:_____Dated:_____

Date Applicant Notified of Application Determination:_____Initials:_____

APPENDIX A

To be completed for alterations, additions, rehabilitations, repairs, or improvements to existing structures.

Section I.

COSTS TO BE INCLUDED

1. Material and labor for all structural elements, " including":
   - ✓ Spread or continuous foundation footings and pilings
   - ✓ Monolithic or other types of concrete slabs
   - ✓ Bearing walls, tie beams and trusses
   - ✓ Floors and ceilings
   - ✓ Attached decks and porches
   - ✓ Interior partition walls
   - ✓ Exterior wall finishes (brick, stucco, siding) including painting and moldings
   - ✓ Windows and doors
   - ✓ Re-shingling or re-tiling a roof
   - ✓ Hardware

2. All interior finishing elements, "including":
   - ✓ Tiling, linoleum, stone, or carpet over subflooring
   - ✓ Bathroom tiling and fixtures
   - ✓ Wall finishes (drywall, painting, stucco, plaster, paneling, marble, etc.)
   - ✓ Kitchen, utility and bathroom cabinets
   - ✓ Built-in bookcases, cabinets, and furniture
   - ✓ Hardware

3. All utility and service equipment, "including":
   - ✓ HVAC equipment
   - ✓ Plumbing and electrical services
   - ✓ Light fixtures and ceiling fans
   - ✓ Security systems
   - ✓ Built-in kitchen appliances
   - ✓ Central vacuum systems
   - ✓ Water filtration, conditioning, or recirculation systems

4. Cost to demolish storm-damaged building components

5. Labor and other costs associated with moving or altering undamaged building components to accommodate the improvements or additions

6. Overhead and profits

ITEMS TO BE EXCLUDED:

1. Plans and specifications
2. Survey costs
3. Permit fees
4. Post-storm debris removal and clean up
5. Outside improvements, including:

- Landscaping
- Sidewalks
- Fences
- Swimming pools
- Screened pool enclosures
- Detached structures (including garages, sheds, and gazebos)
- Landscape irrigation systems

Source: FEMA Publication P-758, Substantial Improvement/Substantial Damage Desk Reference

Section II.

ITEMIZATION OF CONSTRUCTION COSTS TO COMPLETE PROJECT

	Work Description	Cost of Materials	Cost of Labor	Comments
1	Foundation/ Footings/ Pilings			
2	Concrete Slab			
3	Masonry Work			
4	Rough Carpentry			
5	Roofing and Gutters			
6	Insulation/ Weather Stripping			
7	Exterior Finish (stucco/ siding)			
8	Finished Carpentry			
9	Drywall			
10	Cabinets (built-in)			
11	Floor Covering			
12	Plumbing/ Gas			
13	Bathroom Fixtures			
14	Kitchen Fixtures			
15	Electrical and Lighting Fixtures			
16	Built-in Appliances			
17	HVAC System			
18	Paint and Wallpaper			
19	Demolition and Removal			
20	Overhead and Profit			
21	Construction Supervision			
	GROSS TOTAL = Contract Price			

Section III. Affidavit

CONSTRUCTION COST AFFIDAVITS FROM FEMA PUBLICATION P-758, Substantial Improvement/Substantial Damage Desk Reference

Completed by (circle one): Architect or **Contractor** or **Property Owner**
Project Address:_____
Architect/Contractor/Property Owner Name:_____
Company Name (if applicable)**:**_____
Address:_____
Phone:_____
Email:_____

I hereby attest to the following:

- I have prepared (or directly supervised the preparation of) a set of construction plans and specifications for the project located at the above noted property.
- I have personally reviewed the Itemization of Costs to Complete Project listed in Section II above.
- The cost, quantity, and type of materials and labor shown in the Itemization of Costs to Complete Project constitute the entire scope of work to be done in accordance with plans and specifications prepared by or supervised by me.

Additionally, I understand:

- I will not be held responsible for actions taken by the contractor, architect, or property owner without my knowledge or approval.
- I am subject to enforcement actions and/or fines if I subsequently alter the approved plans without prior approval by the City of West Linn.
- The grade of materials may vary as to the manufacturer, but may not exceed the costs stated on the Itemization of Costs to Complete Project.
- Any permit issued by the City of West Linn for the proposed project does not authorize the reconstruction, repair or maintenance of any illegal additions, sheds or other non-conforming uses or structures on the subject property.

Total Labor and Materials $_____
Overhead & Profit $_____
Total Cost $_____

Signature:_____ Date:_____
State of_____ County of_____

Sworn to and subscribed before me this_____day of 20__, by _____
Personally known_____or produced identification_____

_____
Notary Public My commission expires: _____

Exhibit B

MACKENZIE.

October 12, 2023

City of West Linn Planning Division
Attention: Darren Wyss, Planning Manager
22500 Salamo Road
West Linn, OR 97068

Re: **Maddax Woods Park Improvements**
Land Use Application Submittal Waiver Request
Project Number 2190399.01

Dear Darren:

As part of the West Linn Parks and Recreation application for Class I Parks and Recreation Design Review and Flood Management Area permit for Maddax Woods Park, we are requesting that the City waive some of the application criteria as allowed per CDC 99.035(B).

Below is a list of items for which the applicant requests a waiver, together with the reason for the request.

1. An inventory of existing trees and landscaping per CDC 54.020(A). A single tree is proposed to be removed due to proximity to grading, while no other landscaping will be altered. Following construction, the site will continue to be landscaped and maintained in a professional manner by City Parks and Recreation staff.
2. The location and types of outdoor lighting per CDC 56.120(I). The facility is intended to be used during daylight hours so no lighting will be provided.
3. An engineering noise control plan per CDC 56.120(J). The proposed parking and driveway improvements will not generate an appreciable amount of additional noise compared to the existing parking and driveway area in the same location. Furthermore, the parking will be accessed by only a handful of users at any given time due to its small scale.
4. Geologic Report/Geotechnical report per CDC 56.130(E). The parking improvements are proposed to be constructed on the footprint of existing parking, so there is a demonstrated track record that the site can accommodate the proposed surfacing improvements without requiring special stabilization measures.
5. A landscape plan and irrigation information per CDC 56.150. Since the parking and driveway improvements will be constructed over the parking and driveway area, only limited site disturbance will occur. As permitted by CDC 32.110(F), the applicant requests to eliminate parking lot interior landscaping and perimeter landscaping due to the presence of WRA in the parking area. No new plantings or irrigation are proposed.
6. A storm detention and treatment plan per CDC 92.010(E). As the proposed surface will be pervious, the storm runoff characteristics of the new surfacing will not differ substantially from existing conditions. The design engineer has provided information on stormwater management in Exhibit N.

Thank you for your attention to this matter.

Sincerely,

Brian Varricchione
Land Use Planning

c: Ken Warner – West Linn Parks and Recreation
Ralph Henderson – Mackenzie

Exhibit C

MADDAX WOODS PARK
5785 River Street
West Linn, Oregon
Aerial Map

LEGEND

- Site
- Tax Lots
- Trail

0 60 120 240 Feet

N

1 inch = 120 feet

SOURCE DATA:
Metro RLIS Lite Base Data, July 2023

GEOGRAPHIC PROJECTION:
NAD 83 HARN, Oregon North
Lambert Conformal Conic

Date: 9/26/2023
File: Maddax Wood Aerial Map

Map Created By: SJG
Project No: 2190399.00

MACKENZIE.

P 503.224.9560 • F 503.228.1285 • W MCKNZE.COM
RiverEast Center, 1515 SE Water Avenue, #100, Portland, OR 97214

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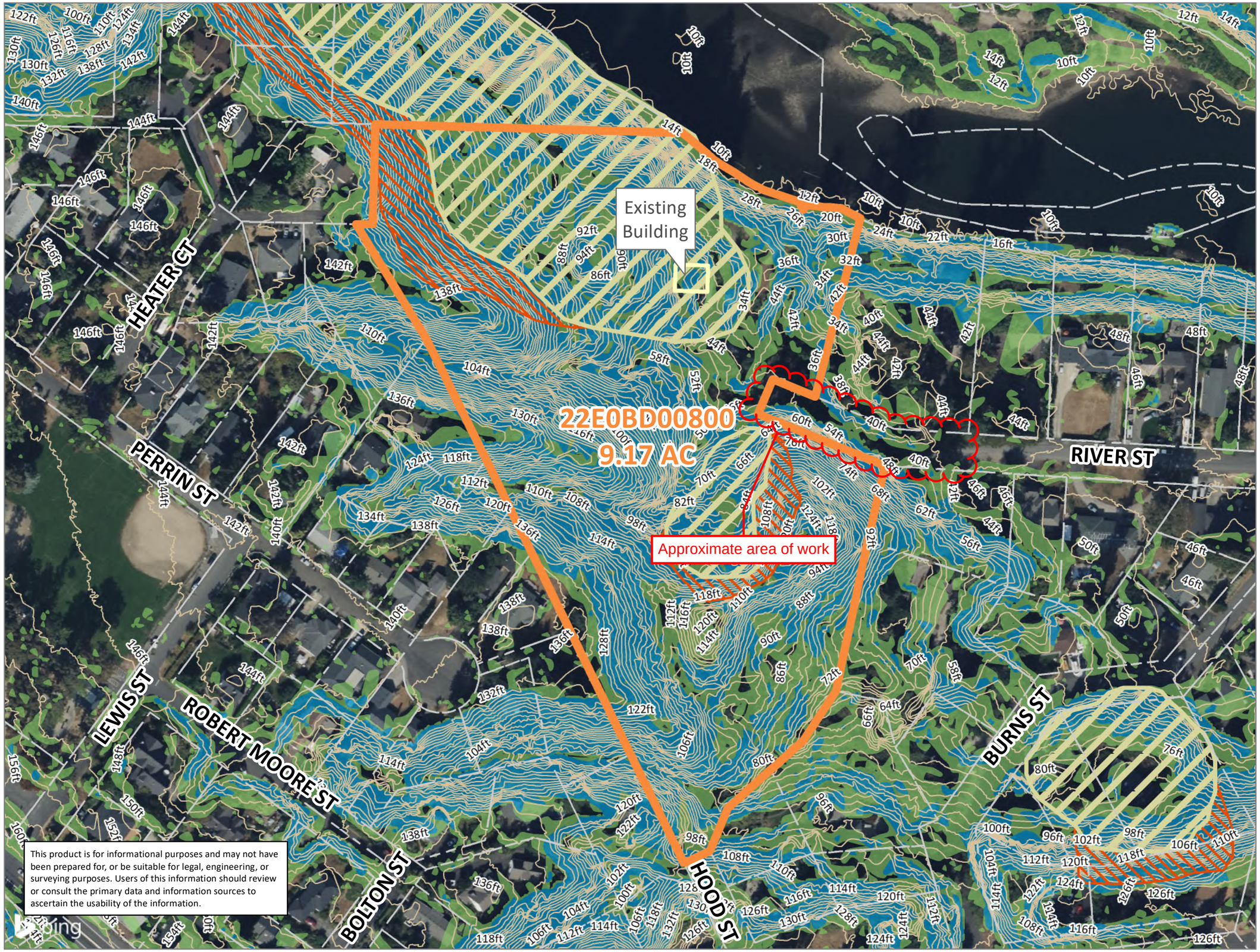
Exhibit D

MADDAX WOODS PARK
5785 River Streett
West Linn, Oregon
Slope Map



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

LEGEND

- Site Area
- Tax Lots
- 2 ft Contours
- Landslide Deposits
- Scarp Flanks

Slopes

- Slopes <10% (8% of site)
- Slopes 10-25% (67% of site)
- Slopes >25% (25% of site)

0 60 120 240 Feet

N

1 inch = 120 feet

SOURCE DATA:
City of West Linn, 2020
Metro RLIS Lite Base Data, July 2023

GEOGRAPHIC PROJECTION:
NAD 83 HARN, Oregon North
Lambert Conformal Conic

Date: 9/27/2023
File: Maddax Wood Updated Slope

Map Created By: SJG
Project No: 2190399.00

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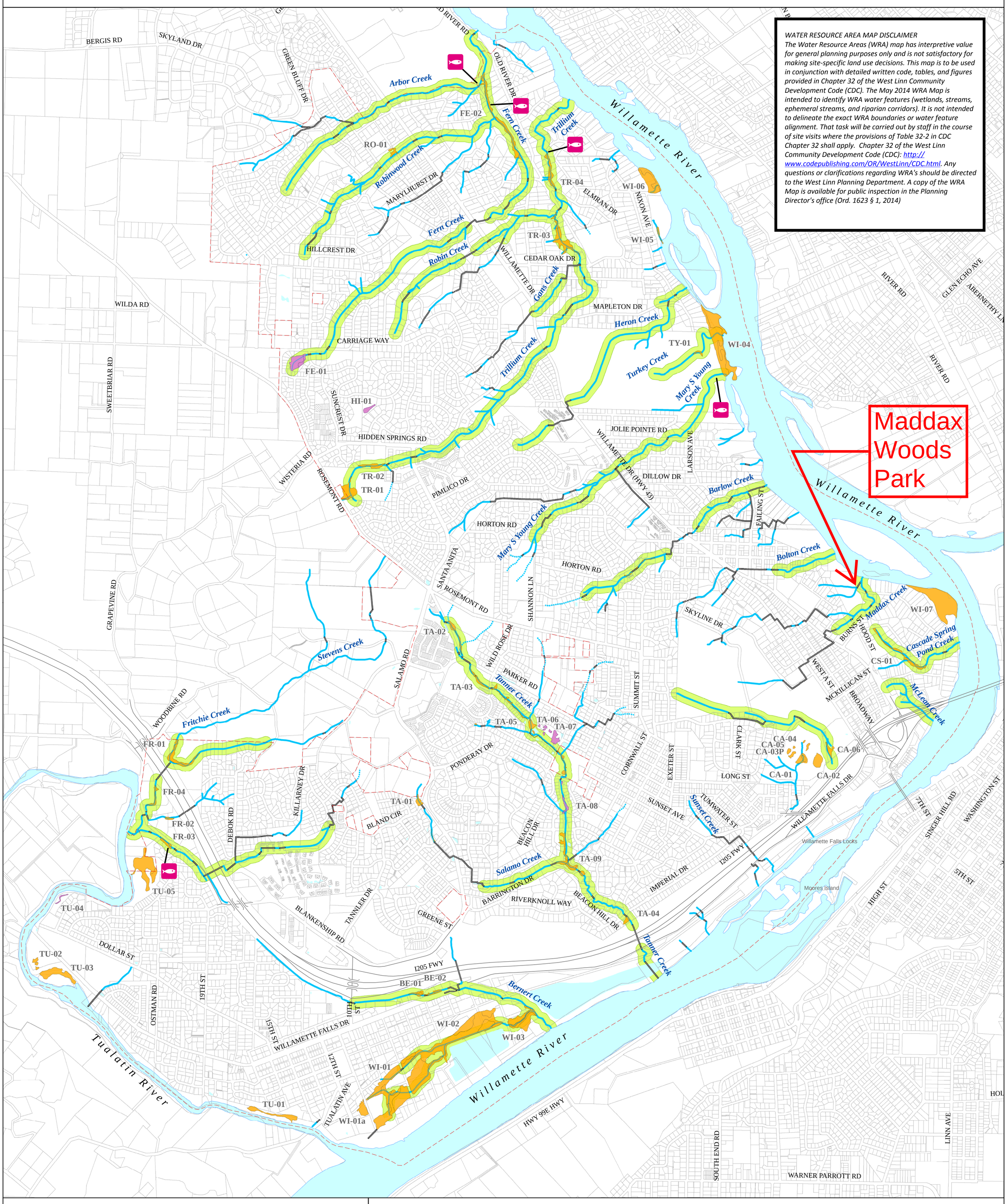
Exhibit E

MAY 2014

Water Resource Area (WRA) Map



WATER RESOURCE AREA MAP DISCLAIMER
The Water Resource Areas (WRA) map has interpretive value for general planning purposes only and is not satisfactory for making site-specific land use decisions. This map is to be used in conjunction with detailed written code, tables, and figures provided in Chapter 32 of the West Linn Community Development Code (CDC). The May 2014 WRA Map 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 in CDC Chapter 32 shall apply. Chapter 32 of the West Linn Community Development Code (CDC): http://www.codepublishing.com/OR/WestLinn/CDC.html. Any questions or clarifications regarding WRA's should be directed to the West Linn Planning Department. A copy of the WRA Map is available for public inspection in the Planning Director's office (Ord. 1623 § 1, 2014)

Map Developed by West Linn Planning Department and GIS

MAP OVERLAYS:
*Streams, Pipe Segments, Other Open Ditches, and Significant Riparian Corridors
Map Source: "Significant Riparian Corridors West Linn Goal 5 Inventory, January 2007"
Map publication date: 1/2/2007.
Modified Streams and added Ephemeral Streams, April 2013, July 2013, September 2013

**Locally Significant Wetlands and Other Wetlands
Map Source: "Local Wetland Inventory, West Linn Goal 5 Inventory, January 2005"
Map publication date: 6/5/2006.

***Taxlot Base Map provided by Clackamas County GIS, 2013

WETLANDS/GOAL 5 DISCLAIMER (DSL STANDARD):
Information shown on this map is for planning purposes only and wetland information is subject to change. There may be unmapped wetlands subject to regulation and all wetland boundary mapping is approximate. In all cases, actual field conditions determine wetland boundaries. You are advised to contact the Oregon Division of State Lands and the U.S. Army Corps of Engineers with any regulatory questions.

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Goal 5 Significant Riparian Corridors*

- Significant Riparian Corridors
- Streams
- Ephemeral Stream
- Piped Segments
- Upper Stream Reach of Fish Inventory 2003/2004 Survey

Goal 5 Wetland Inventory**

- Locally Significant Wetlands, DSL 2005
- Other Wetlands, DSL 2005
- TA-05 Specific Wetland Identifier
- Rivers & Ponds
- West Linn City Limits
- Taxlot Base Map***

0 0.25 0.5 1 Miles

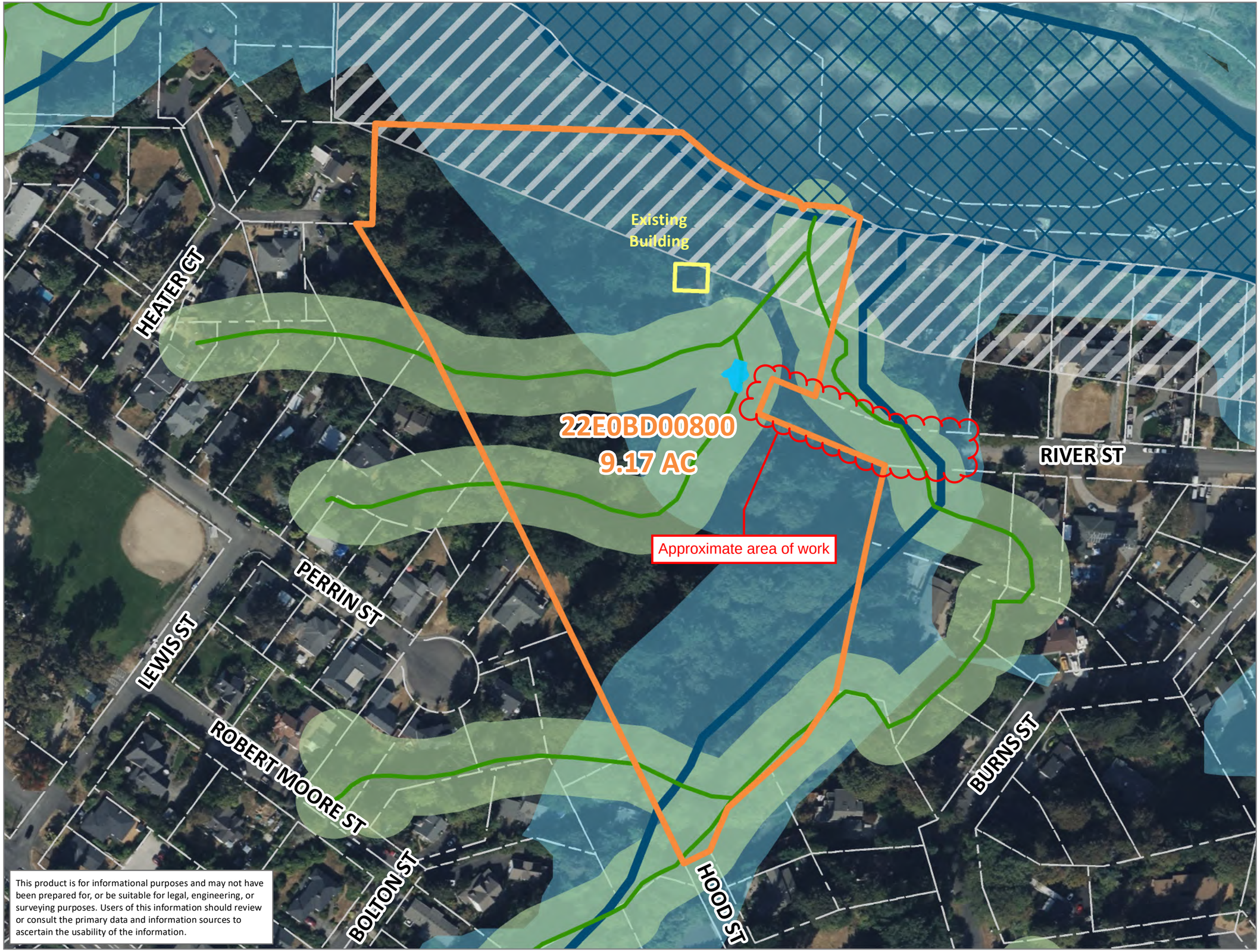
Map Created: 6/6/2014

LOC: G:\PROJECTS\GIS\GOAL5_2006\SIGRIPARIAN\SIGRIPARIAN_WETLANDS_201406V6_FINAL.MXD | KAHA
VERSION 5 TO VERSION 6: REMOVED "PROPOSED" FROM MAP TITLE

City of West Linn GIS
GEOGRAPHIC INFORMATION SYSTEMS

Exhibit F

MADDAX WOODS PARK
5785 River Street
West Linn, Oregon
Wetland & Waterways Map



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LEGEND

- Site
- Tax Lots
- Willamette River
- Willamette River Greenway
- Wetland
- Metro Streams
- Habitat Conservation Area
- City Streams/Ditches
- Water Resource Area

0 60 120 240 Feet

N

1 inch = 120 feet

SOURCE DATA:
City of West Linn GIS, 2020
Metro RLIS Lite Base Data, July 2023

GEOGRAPHIC PROJECTION:
NAD 83 HARN, Oregon North
Lambert Conformal Conic

Date: 9/26/2023
File: Maddax Wood Wetlands

Map Created By: SJG
Project No: 2190399.00

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Exhibit G

MADDAX WOODS PARK
5785 River Street
West Linn, Oregon
Flood Map

LEGEND

- Site
- Tax Lots
- 1996 Flood Inundation Area

Flood Plains (FEMA)

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard

0 60 120 240 Feet

N

1 inch = 120 feet

SOURCE DATA:
Metro RLIS Lite Base Data, July 2023

GEOGRAPHIC PROJECTION:
NAD 83 HARN, Oregon North
Lambert Conformal Conic

Date: 9/26/2023
File: Maddax Wood Flood Information2.0

Map Created By: SJG
Project No: 2190399.00

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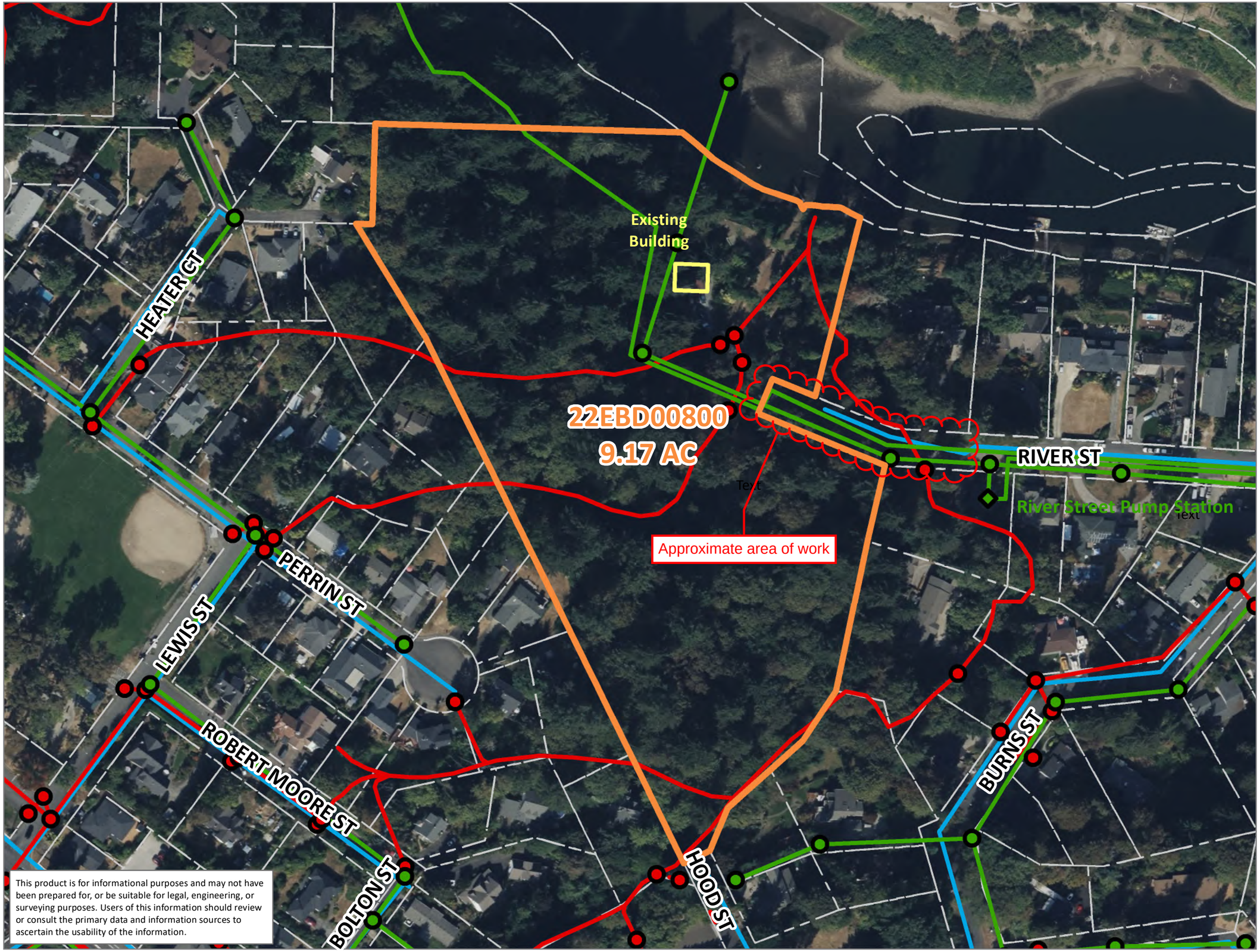
Exhibit H

MADDAX WOODS PARK
5785 River Street
West Linn, Oregon
Public Utility Map



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

LEGEND

- Site
- Tax Lots
- Water Main
- Sanitary Sewer Line
- Sanitary Sewer Pump Station
- Sanitary Sewer Structure
- Storm Line/Ditch
- Storm Structure

0 60 120 240 Feet

N

1 inch = 120 feet

SOURCE DATA:
City of West Linn GIS, 2020
Metro RLIS Lite Base Data, July 2023

GEOGRAPHIC PROJECTION:
NAD 83 HARN, Oregon North
Lambert Conformal Conic

Date: 9/26/2023
File: Maddax Wood Utility Site Map

Map Created By: SJG
Project No: 2190399.00

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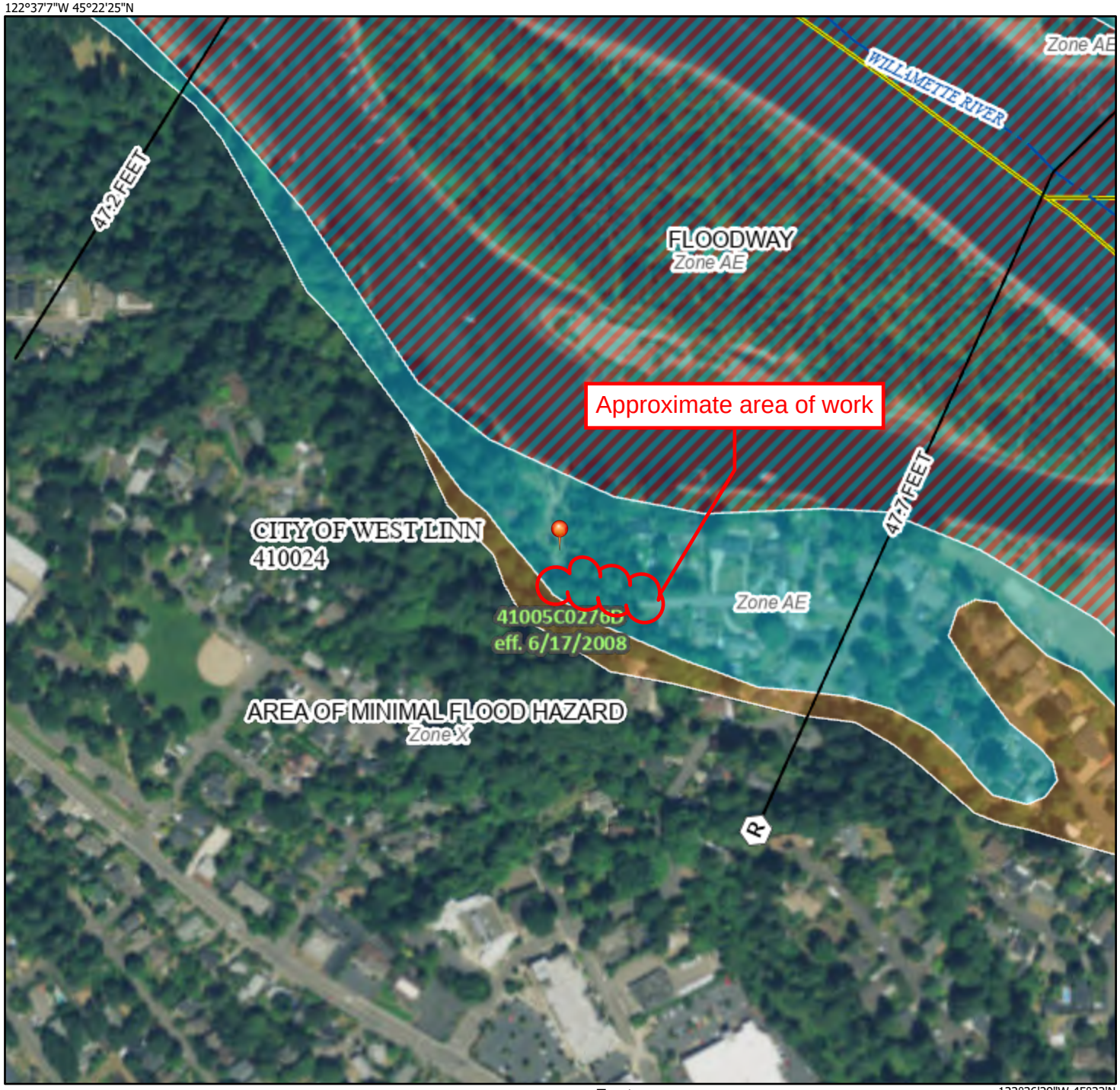
National Flood Hazard Layer FIRMette

FEMA

Exhibit I

122°37'7"W 45°22'25"N



122°36'29"W 45°22'N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS

- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES

- B 20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

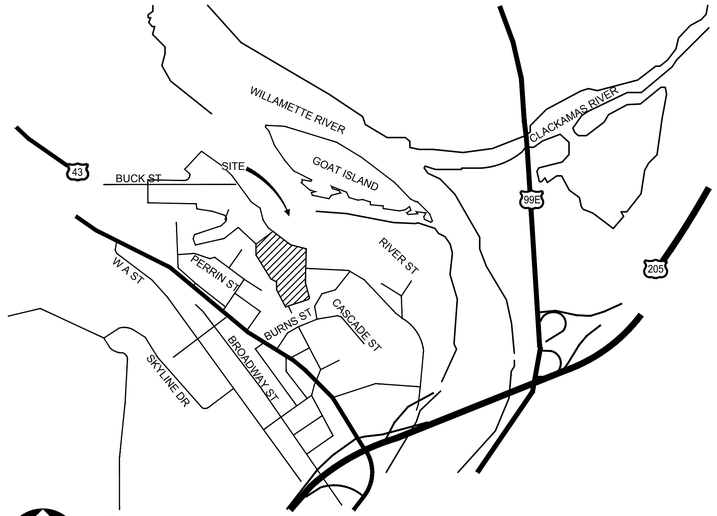
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/6/2023 at 12:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Exhibit J

MADDAX WOODS PARK PARKING IMPROVEMENTS

5785 RIVER STREET
WEST LINN, OREGON



1 C1.0 VICINITY MAP
N.T.S.

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	503-226-4211
PGE	503-464-7777
CENTURY LINK	800-201-4099

OWNER/PERMITTEE

OWNER: CITY OF WEST LINN
CONTACT: KEN WARNER
22500 SALAMO RD
WEST LINN, OR 97068
PHONE: (503) 557-4700
E-MAIL: KWARNER@WESTLINNOREGON.GOV

ENGINEERING

MACKENZIE
CONTACT: RALPH HENDERSON
1515 SE WATER AVENUE #100
PORTLAND, OR 97214
PHONE: (503) 224-9560
FAX: (503) 228-1285
E-MAIL: RHENDERSON@MCKNZE.COM

SURVEYOR

ANDY PARIS & ASSOCIATES, INC.
CONTACT: HAROLD P. SALO
16057 BOONES FERRY RD.
LAKE OSWEGO, OR 97035
PHONE: (503) 636-3341
EMAIL: HSALO@COMCAST.NET

CITY OF WEST LINN

CITY OF WEST LINN PARKS AND RECREATION
22500 SALAMO RD
WEST LINN, OR 97068
PHONE: (503) 557-4700

CLACKAMAS COUNTY TAX LOT: 22E30BD00800
ZONING: SINGLE-FAMILY RESIDENTIAL DETACHED (R-10)
SITE AREA: 9.17 ACRES

PROJECT DATUM:

VERTICAL DATUM IS BASED ON NAVD 88, BASED ON OPUS SOLUTION OF STATIC GPS OBSERVATION.

CIVIL SHEET INDEX:

C1.0	COVER SHEET
C0.01	CIVIL NOTES
V1.10	EXISTING CONDITIONS PLAN
C1.10	SITE & UTILITY PLAN
C1.20	GRADING PLAN
C5.10	CIVIL DETAILS

Architecture ▪ Interiors
Planning ▪ Engineering

Portland, OR
503.224.9560
Vancouver, WA
360.695.7879
Seattle, WA
206.749.9993

www.mcknze.inc

MACKENZIE.

Client
CITY OF WEST LINN

Project
MADDAX WOODS PARK IMPROVEMENTS

5785 RIVER STREET
WEST LINN, OR

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REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
COVER SHEET

SHEET:
C1.0

JOB NO. **2190399.00**

LAND USE SUBMITTAL - 10/12/2023

21903990\0DRAWINGS\CIVIL\399-C1.0.DWG FMS 10/13/23 09:14 1:1

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS AND REQUIREMENTS OF THE CITY OF WEST LINN AND THE CURRENT AMERICAN PUBLIC WORKS ASSOCIATION STANDARDS FOR PUBLIC WORKS CONSTRUCTION
2. THE SURVEY INFORMATION SHOWN AS A BACKGROUND SCREEN IS BASED ON A SURVEY BY OTHERS AND IS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS WITH ITS OWN RESOURCES PRIOR TO START OF ANY CONSTRUCTION
3. CONTRACTOR MUST COMPLY WITH LOCAL AND STATE REQUIREMENTS TO NOTIFY ALL UTILITY COMPANIES FOR LINE LOCATIONS SEVENTY-TWO (72) HOURS (MINIMUM) PRIOR TO START OF WORK. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE
4. CONTRACTOR SHALL ADJUST ALL STRUCTURES IMPACTED BY CONSTRUCTION IMPROVEMENTS TO NEW FINISH GRADES
5. REQUEST BY THE CONTRACTOR FOR CHANGES TO THE PLANS MUST BE APPROVED BY THE ENGINEER.
6. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A PUBLIC WORKS PERMIT
7. CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD WITH AS-BUILT PLANS AT LEAST 2 WEEKS PRIOR TO REQUESTING AGENCY SIGN OFF ON PERMITS FOR OCCUPANCY
8. CONTRACTOR SHALL PERFORM ALL THE WORK SHOWN ON THE DRAWINGS AND ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE PROJECT

DEMOLITION NOTES

1. INSTALL EROSION CONTROL MEASURES AND TEMPORARY FENCING PRIOR TO ANY DEMOLITION ACTIVITIES
2. DEMOLISH AND REMOVE ALL STRUCTURES AND ASSOCIATED FEATURES (APPURTENANCES), AS SHOWN
3. DEMOLISH ALL PAVED AREAS ON SITE AS SHOWN, DOWN TO NATIVE SUBGRADE
4. ALL VEGETATION AND DELETERIOUS MATERIALS WITHIN THE LIMITS OF WORK SHALL BE STRIPPED AND REMOVED FROM THE SITE PRIOR TO GRADING WORK, UNLESS NOTED OTHERWISE (E.G. PROTECTED TREES)
5. PROTECT ALL EXISTING LANDSCAPING AT AND BEYOND LIMITS OF WORK
6. PROTECT ALL UNDERGROUND UTILITY SERVICES AND CONDUIT UNLESS NOTED OTHERWISE
7. WHERE APPLICABLE, VERIFY DISCONNECT OF GAS AND ELECTRIC WITH UTILITY. CUT/CAP UTILITY SERVICES (STORMWATER AND SANITARY WITHIN 5 FEET OF EDGE OF R.O.W.) CAP WATERLINE ON OWNER'S SIDE OF METER AND PERFORM OTHER DEMOLITION TASKS AS REQUIRED. ADDITIONAL REMOVALS MAY BE REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND THE CONTRACTOR SHALL CONFIRM ACCORDINGLY PRIOR TO BID

GRADING NOTES

1. ROUGH GRADING: ROUGH GRADE TO ALLOW FOR DEPTH OF BUILDING SLABS, PAVEMENTS, BASE COURSES, AND TOPSOIL PER DETAILS AND SPECIFICATIONS
2. FINISH GRADING: BRING ALL FINISH GRADES TO LEVELS INDICATED. WHERE GRADES ARE NOT OTHERWISE INDICATED, HARDSCAPE FINISH GRADES ARE TO BE THE SAME AS ADJACENT SIDEWALKS, CURBS, OR THE OBVIOUS GRADE OF ADJACENT STRUCTURE. SOFTSCAPE GRADES (INCLUDING ADDITIONAL DEPTH OF TOPSOIL) SHALL BE SET 6 INCHES BELOW BUILDING FINISHED FLOORS WHERE ABUTTING BUILDINGS, 1-2 INCHES WHERE ABUTTING WALKWAYS OR CURBS, OR MATCHING OTHER SOFTSCAPE GRADES. GRADE TO UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE GRADES ARE GIVEN. ROUND OFF SURFACES, AVOID ABRUPT CHANGES IN LEVELS. AT COMPLETION OF JOB AND AFTER BACKFILLING BY OTHER TRADES HAS BEEN COMPLETED, REFILL AND COMPACT AREAS WHICH HAVE SETTLED OR ERODED TO BRING TO FINAL GRADES
3. EXCAVATION: EXCAVATE FOR SLABS, PAVING, AND OTHER IMPROVEMENTS TO SIZES AND LEVELS SHOWN OR REQUIRED. ALLOW FOR FORM CLEARANCE AND FOR PROPER COMPACTION OF REQUIRED BACKFILLING MATERIAL. DAMAGE TO UTILITIES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE
4. EFFECTIVE EROSION PREVENTION AND SEDIMENT CONTROL IS REQUIRED. EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED MEETING THE LOCAL AGENCY AND STATE AGENCY REQUIREMENTS. THE AUTHORITIES HAVING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE EROSION CONTROL
5. DRAINAGE SHALL BE CONTROLLED WITHIN THE WORK SITE AND SHALL BE ROUTED SO THAT ADJACENT PRIVATE PROPERTY, PUBLIC PROPERTY, AND THE RECEIVING SYSTEM ARE NOT ADVERSELY IMPACTED. THE ENGINEER AND/OR AUTHORITIES HAVING JURISDICTION MAY, AT ANY TIME, ORDER CORRECTIVE ACTION AND STOPPAGE OF WORK TO ACCOMPLISH EFFECTIVE DRAINAGE CONTROL
6. SITE TOPSOIL STOCKPILED DURING CONSTRUCTION AND USED FOR LANDSCAPING SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT
7. CONTRACTOR TO REVIEW AND CONFIRM GRADES AT JOIN POINTS, SUCH AS AT DAYLIGHT LIMITS AND BUILDING ENTRANCES, PRIOR TO CONSTRUCTION
8. ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL BE CONSTRUCTED AT 2% MAXIMUM SLOPE IN ALL DIRECTIONS
9. PEDESTRIAN SIDEWALK CONNECTIONS BETWEEN PUBLIC R.O.W. AND BUILDING ENTRANCES SHALL BE CONSTRUCTED AT AND 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM LONGITUDINAL SLOPE (8.33% FOR DESIGNATED RAMPS)

UTILITY NOTES

1. ALL WORK SHALL CONFORM TO THE CURRENT EDITIONS OF THE STATE PLUMBING AND BUILDING CODES WITH LOCAL AMENDMENTS AS APPLICABLE ALONG WITH ANY ADDITIONAL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
2. THE WORKING DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW REQUIRED FOR INSTALLATION IN THE SPACE PROVIDED. THEY DO NOT SHOW EVERY DIMENSION, COMPONENT PIECE, SECTION, JOINT OR FITTING REQUIRED TO COMPLETE THE PROJECT. ALL LOCATIONS FOR WORK SHALL BE CHECKED AND COORDINATED WITH EXISTING CONDITIONS IN THE FIELD BEFORE BEGINNING CONSTRUCTION. EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF EXCAVATION SHALL BE VERIFIED AS TO CONDITION, SIZE AND LOCATION BY UNCOVERING (POTHOLING), PROVIDING SUCH IS PERMITTED BY THE AUTHORITIES HAVING JURISDICTION, BEFORE BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES.
3. ALL SANITARY AND STORM PIPING IS DESIGNED USING CONCENTRIC PIPE TO PIPE AND WYE FITTINGS, UNLESS OTHERWISE NOTED
4. ALL DOWNSPOUT LEADERS TO BE 6 INCHES AT 2.0% MINIMUM UNLESS NOTED OTHERWISE
5. CONTRACTOR TO MAINTAIN MINIMUM 3 FEET OF COVER OVER ALL UTILITY PIPING AND CONDUITS, UNLESS NOTED OTHERWISE
6. WHERE CONNECTING TO AN EXISTING PIPE, AND PRIOR TO ORDERING MATERIALS, THE CONTRACTOR SHALL EXPOSE THE END OF THE EXISTING PIPE TO VERIFY THE LOCATION, SIZE, AND ELEVATION. NOTIFY ENGINEER OF ANY DISCREPANCIES
7. CONTRACTOR SHALL SCOPE ALL PRIVATE ONSITE GRAVITY SYSTEM LINES THAT ARE BEING CONNECTED TO FOR PROPOSED SERVICE. SCOPING SHALL OCCUR A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES WITH AS-BUILT RECORDS/SURVEY FINDINGS OR IF THE EXISTING UTILITIES ARE DAMAGED OR SHOW SIGNS OF SIGNIFICANT DETERIORATION. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH VIDEO RECORDS, ALONG WITH A SKETCH IF THE LOCATIONS DIFFER FROM AS-BUILT PLANS OR SURVEY FINDINGS
8. PRODUCT MATERIAL SUBMITTALS FOR REVIEW BY THE ENGINEER SHALL BE ACCOMPANIED BY A MANUFACTURER'S CERTIFICATION THAT THE PRODUCT IS CAPABLE OF MEETING PERFORMANCE EXPECTATIONS (I.E. - WATERTIGHT, MINIMUM/MAXIMUM BURIAL, PREVENTION OF GROUNDWATER INTRUSION, ETC.) BASED ON THEIR REVIEW OF THE PROJECT PLANS. IN THE ABSENCE OF A MANUFACTURER'S CERTIFICATION, THE GENERAL CONTRACTOR'S REVIEW STAMP SHALL CONSTITUTE THAT THEY HAVE PERFORMED THE NECESSARY REVIEW TO CERTIFY THE PRODUCT'S CONFORMANCE TO PROJECT SPECIFICATIONS AND GENERAL EXPECTATIONS
9. PIPE LENGTHS SHOWN ON PLANS ARE TWO DIMENSIONAL AND MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE
10. MANHOLE RIM ELEVATIONS SHOWN ON PLANS REFERENCE THE CENTER OF THE STRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONCILING LIDS/GRATES/ETC TO THE SLOPES OF THE SITE GRADING
11. MANHOLE OR VAULT RIM ELEVATIONS SHALL BE SET FLUSH IN PAVEMENT AREAS AND 3-4 INCHES ABOVE GRADE IN LANDSCAPE AREAS. RIMS IN PAVEMENT AREAS SHALL BE H-20 TRAFFIC RATED

EROSION CONTROL NOTES

1. HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE CITY OF WEST LINN INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS
2. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE BEFORE ANY LAND IS DISTURBED AND MUST REMAIN IN PLACE AND BE MAINTAINED, REPAIRED, AND PROMPTLY IMPLEMENTED FOLLOWING PROCEDURES ESTABLISHED FOR THE DURATION OF CONSTRUCTION, INCLUDING APPROPRIATE NON-STORMWATER POLLUTION CONTROLS
3. THE EROSION CONTROL DRAWING IS FOR GENERAL GUIDANCE ONLY. THE CONTRACTOR SHALL KEEP THE PLAN CURRENT FOR ALL PHASES OF CONSTRUCTION AND MEET EROSION/SEDIMENT CONTROL REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION (AHJ). ALL EROSION CONTROL MEASURES SHALL CONFORM TO THE REQUIREMENTS OF THE AHJ, THE PLANS, AND THE PROJECT SPECIFICATIONS
4. CONSTRUCT EROSION CONTROL IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS
5. METHOD OF INSTALLATION FOR SEDIMENT FENCE SHALL NOT CAUSE DAMAGE TO VEGETATED SLOPE EXCEPT AT POINT OF INSTALLATION. SIDECAST MATERIAL SHALL BE KEPT TO A MINIMUM AND SHALL BE TO THE UPHILL SIDE OF THE SEDIMENT FENCE. THE FENCE SHALL BE INSTALLED AT LEAST 4 FEET FROM ADJACENT TREES
6. ALL EROSION CONTROL DEVICES SHALL BE EXAMINED AND REPAIRED AFTER EACH STORM OCCURRENCE, AND INLETS SHALL BE CLEANED OF SEDIMENT WHENEVER NECESSARY
7. HYDROSEED AND MULCH ALL DISTURBED AREAS UPON COMPLETION OF CONSTRUCTION OR AS DIRECTED BY THE AUTHORITIES HAVING JURSIDICTION
8. THE CONTRACTOR SHALL LIMIT CONSTRUCTION TRAFFIC TO PAVED AREAS TO PREVENT AND MINIMIZE SEDIMENT TRACKING OFF-SITE. CONTRACTOR SHALL SWEEP OR VACUUM PAVED AREAS IF SEDIMENT ACCUMULATION OCCURS. DO NOT TRACK SEDIMENT TO THE PUBLIC STREET OR NEIGHBORING PROPERTIES
9. INSTALL TEMPORARY EROSION PREVENTION SUCH AS JUTE NETTING OR GEOTEXTILE ON DISTURBED AREAS STEEPER THAN 4H:1V
10. STAGING AND STOCKPILE AREAS TO BE DETERMINED BY CONTRACTOR AND ADJUSTED TO ACCOMMODATE THE PROGRESS OF CONSTRUCTION

SITE WORK NOTES

1. ALL CURB RADII TO BE 3 FEET UNLESS NOTED OTHERWISE
2. STAIR RISERS AND TREADS SHALL BE CONFORMANT WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND THE CURRENT EDITION OF THE STATE BUILDING CODE (E.G. INTERNATIONAL BUILDING CODE, CHAPTER 10, SECTION 1011.5)
3. WHEREVER A PEDESTRIAN WALKING PATH IS WITHIN 36 INCHES OF A VERTICAL DROP OF 30 INCHES OR GREATER, GUARDRAIL SHALL BE INSTALLED CONFORMANT WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND THE CURRENT EDITION OF THE STATE BUILDING CODE (E.G. INTERNATIONAL BUILDING CODE, CHAPTER 10, SECTION 1015)

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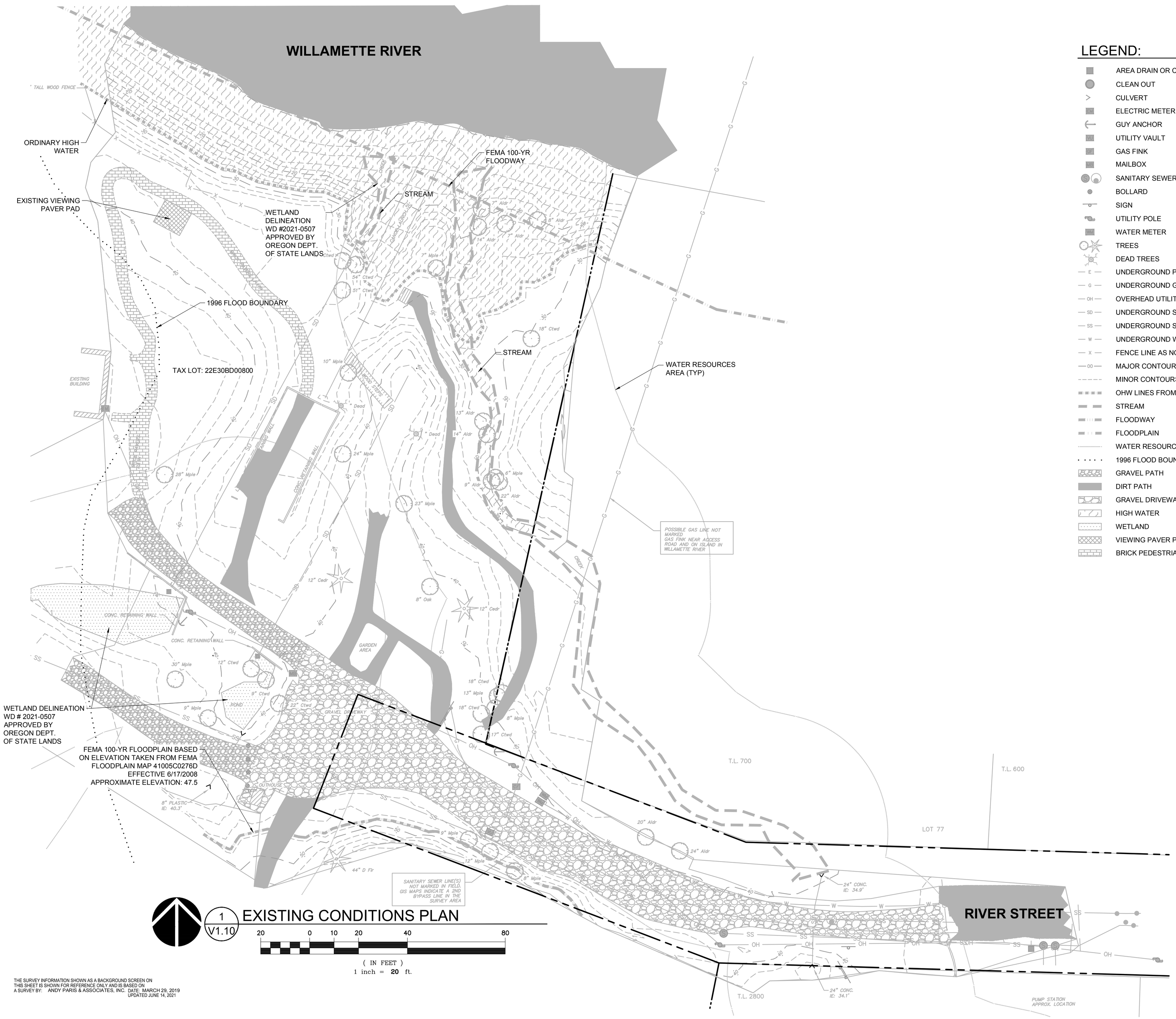

1 V1.10 EXISTING CONDITIONS PLAN

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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LEGEND:

- AREA DRAIN OR CATCH BASIN
- CLEAN OUT
- CULVERT
- ELECTRIC METER
- GUY ANCHOR
- UTILITY VAULT
- GAS FINK
- MAILBOX
- SANITARY SEWER MANHOLE
- BOLLARD
- SIGN
- UTILITY POLE
- WATER METER
- TREES
- DEAD TREES
- UNDERGROUND POWER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITY LINE
- UNDERGROUND STORM LINE
- UNDERGROUND SANITARY LINE
- UNDERGROUND WATER LINE
- FENCE LINE AS NOTED
- MAJOR CONTOURS
- MINOR CONTOURS
- OHW LINES FROM PHS
- STREAM
- FLOODWAY
- FLOODPLAIN
- WATER RESOURCE AREA
- 1996 FLOOD BOUNDARY
- GRAVEL PATH
- DIRT PATH
- GRAVEL DRIVEWAY
- HIGH WATER
- WETLAND
- VIEWING PAVER PAD
- BRICK PEDESTRIAN PATH

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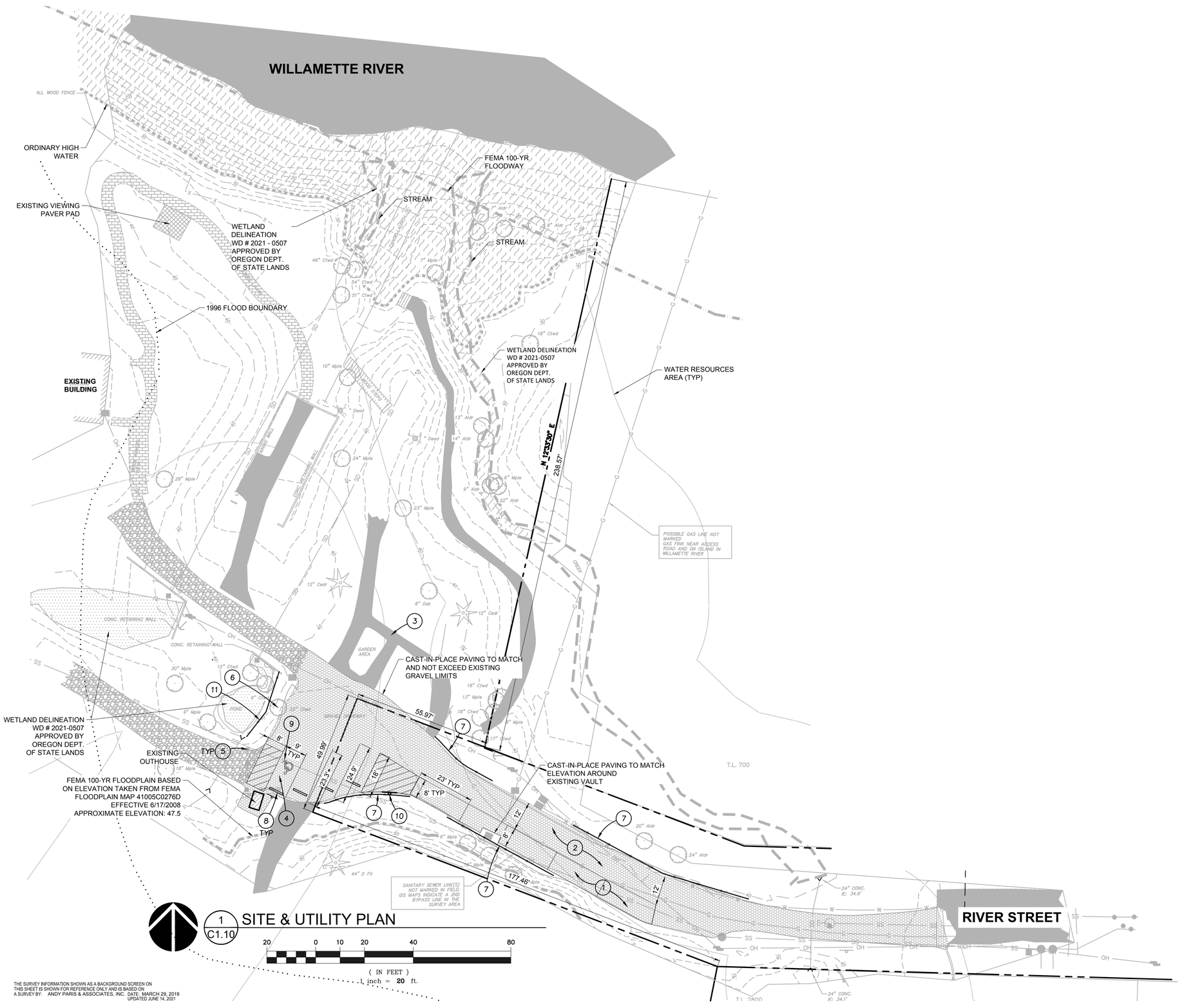

1 C1.10 SITE & UTILITY PLAN

20 0 10 20 40 80

(IN FEET)
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KEYNOTES

1. CAST-IN-PLACE CONCRETE PAVING SYSTEM WITH VOIDS, FILLED WITH COLORED AGGREGATE PER DETAIL 3/C5.10
2. CAST-IN-PLACE CONCRETE PAVING SYSTEM WITH VOIDS, FILLED BY CRUSHED ROCK OR VEGETATION AS NOTED PER DETAIL 3/C5.10
3. EXISTING DIRT PATH
4. VAN ACCESSIBLE ADA PARKING STALL PER DETAIL 1/C5.10
5. PROTECT EXISTING BOLLARDS
6. EXISTING 22" TREE TO BE REMOVED - DO NOT DISTURB ADJACENT WETLAND
7. TREE PROTECTION FENCE PER DETAIL 4/C5.10. ARBORIST TO BE CALLED TO SITE TO EVALUATE TREES DURING CONSTRUCTION
8. WHEEL STOP PER DETAIL 2/C5.10
9. FILL CONCRETE PAVING SYSTEM VOIDS WITH MATCHING GROUT WITHING AREA OF ACCESSIBLE MARKING
10. "NO PARKING" SIGN PER DETAIL 5/C5.10
11. INSTALL TEMPORARY FENCE TO PROTECT EXISTING WETLAND

LEGEND

CAST-IN-PLACE PAVED AREA

EXISTING DIRT PATH

SITE DATA

TOTAL SITE AREA	399,292 SF (9.17 AC)
DISTURBED AREA	6,973 SF (0.16 AC)
STANDARD PARKING PROVIDED	7 SPACES
ADA PARKING PROVIDED	1 SPACE
TOTAL PARKING PROVIDED	8 SPACES

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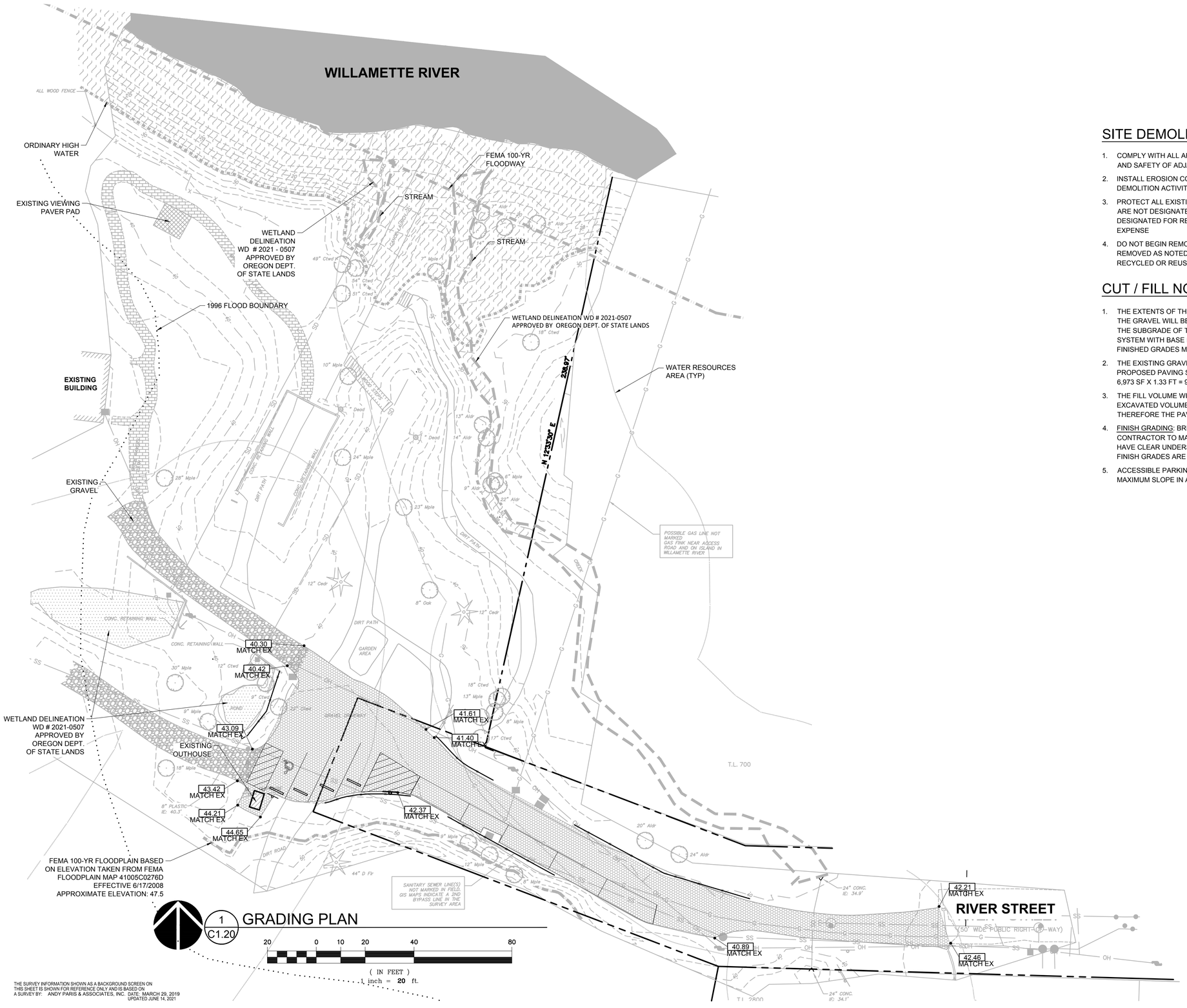

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SITE DEMOLITION NOTES

1. COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS FOR DEMOLITION OPERATIONS AND SAFETY OF ADJACENT STRUCTURES AND THE PUBLIC
2. INSTALL EROSION CONTROL MEASURES AND TEMPORARY FENCING PRIOR TO ANY DEMOLITION ACTIVITIES
3. PROTECT ALL EXISTING STRUCTURES, UTILITIES, LANDSCAPE AND OTHER ELEMENTS THAT ARE NOT DESIGNATED FOR REMOVAL. ANY DAMAGE TO EXISTING IMPROVEMENTS NOT DESIGNATED FOR REMOVAL SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE
4. DO NOT BEGIN REMOVAL UNTIL ITEMS TO BE SALVAGED OR RELOCATED HAVE BEEN REMOVED AS NOTED. IF REMOVED GRAVEL OR PAVEMENT MATERIALS ARE TO BE RECYCLED OR REUSED, PREVENT CONTAMINATION OF THESE MATERIALS FROM TOPSOIL

CUT / FILL NOTES

1. THE EXTENTS OF THE SITE GRADING IS LIMITED TO THE EXISTING GRAVEL AREA ON SITE. THE GRAVEL WILL BE REMOVED WITH THE AREA BELOW THE EXISTING GRAVEL DOWN TO THE SUBGRADE OF THE PROPOSED PERVIOUS BLOCK PAVING SYSTEM. THEN THE PAVING SYSTEM WITH BASE MATERIALS WILL BE INSTALLED TO RESULT IN PAVING SYSTEM FINISHED GRADES MATCHING EXISTING GRAVEL GRADES.
2. THE EXISTING GRAVEL AREA IS 6,973 SF. THIS WILL BE EXCAVATED TO THE DEPTH OF THE PROPOSED PAVING SYSTEM - 16 INCHES. THIS WILL RESULT IN AN EXCAVATION VOLUME OF 6,973 SF X 1.33 FT = 9,274 CF.
3. THE FILL VOLUME WILL BE EXACTLY THE SAME, SINCE THE PROJECT WILL REPLACE THE EXCAVATED VOLUME WITH THE NEW PAVING SYSTEM. THE PROPOSED FILL VOLUME IS THEREFORE THE PAVING SYSTEM WHICH IS 6,973 SF X 1.33 FT = 9,274 CF.
4. FINISH GRADING: BRING ALL FINISH GRADES TO SAME LEVELS AS EXISTING GRADES. CONTRACTOR TO MAKE DETAILED SURVEY OF EXISTING GRAVEL SURFACE GRADES TO HAVE CLEAR UNDERSTANDING WHERE PROPOSED GRADES WILL NEED TO BE. HARDSCAPE FINISH GRADES ARE TO BE THE SAME AS EXISTING GRADES.
5. ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL BE CONSTRUCTED AT 2% MAXIMUM SLOPE IN ALL DIRECTIONS

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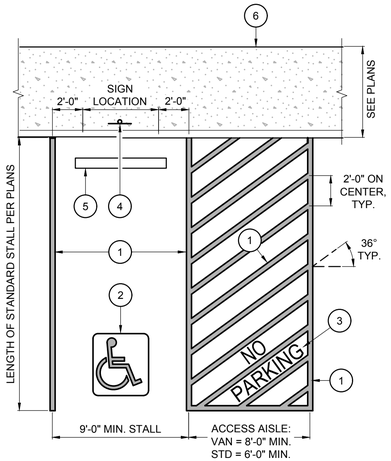
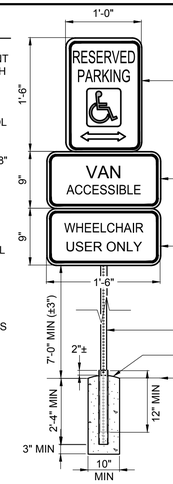


KEYNOTES:
1. 4" WIDE WHITE STRIPE
2. WHITE RETROREFLECTIVE PAVEMENT MARKING SYMBOL (FHWA 3B-22) WITH BLUE RETROREFLECTIVE BACKGROUND (41" TALL x 36" WIDE WITH 4" STROKE WIDTH). OFFSET BACKGROUND LIMIT 4" FROM SYMBOL
3. YELLOW RETROREFLECTIVE "NO PARKING" PAVEMENT MARKING LEGEND ("NO" SHALL BE 12" TALL x 18" WIDE AND "PARKING" SHALL BE 12" TALL x 60" WIDE)
4. ACCESSIBLE PARKING SPACE SIGNAGE PER DETAIL HEREON. MAINTAIN 48" CLEAR ACCESS AROUND SIGN. ENSURE NO INTERFERENCE WITH PARKING STALL OVERHANG
5. WHEEL STOP PER DETAIL 2/C5.10
6. SEE PLANS FOR PROPOSED CURB/SIDEWALK/RAMPS/ETC IMPROVEMENTS TO ACCOMMODATE ACCESSIBLE PARKING STALL ACCESS



FHWA SIGN NO. R7-8
BACKGROUND: WHITE, RETRO-REFLECTIVE SHEETING
LEGEND: GREEN, RETRO-REFLECTIVE SHEETING
SYMBOL: WHITE ON BLUE, RETRO-REFLECTIVE SHEETING

FHWA SIGN NO. R7-8A
(WHERE CALLED OUT ON PLANS)
BACKGROUND: WHITE, RETRO-REFLECTIVE SHEETING
LEGEND: GREEN, RETRO-REFLECTIVE SHEETING
NOTE: ACCESS AISLE FOR SINGLE VAN ACCESSIBLE STALL TO BE LOCATED ON THE PASSENGER'S SIDE

OREGON DEPT OF TRANSPORTATION SIGN NO. OR7-8C
(WHERE CALLED OUT ON PLANS)
BACKGROUND: WHITE, RETRO-REFLECTIVE SHEETING
LEGEND: GREEN, RETRO-REFLECTIVE SHEETING

2"X2" SQUARE PERFORATED GALVANIZED 12GA METAL SIGN POST AND COMPATIBLE SLEEVE (UNISTRUT TELESPAR, OR EQUAL)

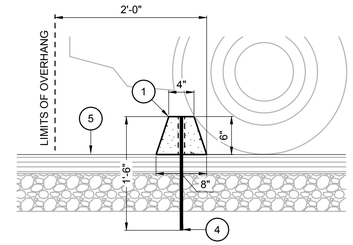
CONCRETE FOUNDATION, ROUND TOP TO SHED

FINISHED GROUND

NOTE: MORE DETAIL ON THE FHWA SIGN/SYMBOL NUMBER REFERENCES HEREON MAY BE FOUND IN THE STANDARD HIGHWAY SIGNS BOOK PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA), LATEST EDITION

1 C5.10 ACCESSIBLE PARKING STALL

NTS



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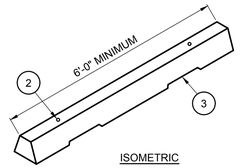


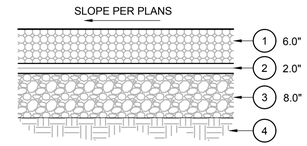
ISOMETRIC

KEYNOTES:
1. PRECAST WHEEL STOP. DIMENSIONS SHOWN ARE MINIMUMS
2. DOWEL HOLES (2 MINIMUM)
3. DRAINAGE SLOTS (2 MINIMUM)
4. DOWEL INTO PAVEMENT (2 MINIMUM). #4 REBAR OR PER MANUFACTURER'S RECOMMENDATIONS
5. FINISHED GROUND PER PLANS

NOTES:
A. INSTALL WHEEL STOP PER MANUFACTURER'S RECOMMENDATIONS

2 C5.10 PRECAST WHEEL STOP

NTS



KEYNOTES:
1. CAST-IN-PLACE PAVER - GRASSCRETE OR APPROVED EQUAL
2. UN-COMPACTED SAND
3. CRUSHED ROCK
4. COMPACTED SUBGRADE

NOTES:
A. MATCH MANUFACTURER SPECIFICATIONS/ RECOMMENDATIONS.

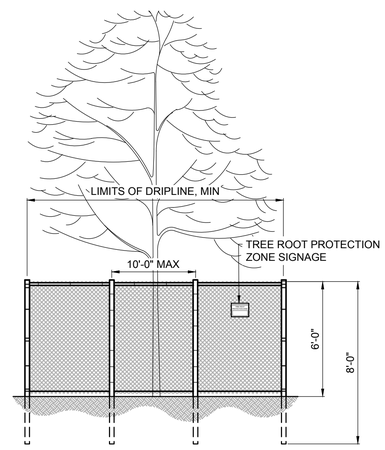
3 C5.10 CAST-IN-PLACE PAVER

NTS

TREE PROTECTION MEASURES:
1. UNLESS OTHERWISE INDICATED FOR REMOVAL ALL TREES SHALL RECEIVE PROTECTIVE MEASURES FOR THE DURATION OF THE PROJECT IN ACCORDANCE WITH LOCAL AGENCY REQUIREMENTS.
2. 6' HIGH MINIMUM METAL CHAIN LINK FENCING SHALL BE ERECTED AND MAINTAINED. FENCING SHALL COMPLETELY SURROUND AT MINIMUM THE TREE DRIP LINE FOR EACH TREE OR GROUP OF EXISTING TREES. THE TREE DRIP LINE SHALL BE DEFINED AS A CLEARANCE ZONE OF 1 FOOT PER 1 INCH DBH (DIAMETER AT BREAST HEIGHT = 4.5 FEET ABOVE GRADE) FROM THE TREE BEING PROTECTED.
3. IN AREAS WHERE ROOT ZONE ENCROACHMENT IS UNAVOIDABLE, A CERTIFIED ARBORIST SHALL DESIGNATE THE FENCING LOCATION PRIOR TO START OF WORK.
4. NO ACTIVITY MAY BE CONDUCTED WITHIN ANY DESIGNATED TREE PROTECTION AREA, INCLUDING BUT NOT LIMITED TO PARKING EQUIPMENT, PLACING SOLVENTS, STORING MATERIALS AND SOIL DEPOSITS, DUMPING CONCRETE WASHOUT OR OTHER DEBRIS, OR ANY EXCAVATION OR COMPACTION WORK.
5. DURING CONSTRUCTION NO OBJECTS SHALL BE ATTACHED TO ANY TREE DESIGNATED TO BE RETAINED AND PROTECTED.
6. PROVIDE MULCH COVER TO A MINIMUM DEPTH OF 6", PLYWOOD, OR OTHER SIMILAR MATERIAL AT AREAS ADJOINING DESIGNATED TREE PROTECTION AREAS TO PROTECT ROOTS FROM DAMAGE CAUSED BY HEAVY EQUIPMENT. COORDINATE PLACEMENTS AND LOCATION WITH THE LANDSCAPE ARCHITECT OR A CERTIFIED ARBORIST.
7. PROTECTION FENCE SHALL BE MAINTAINED IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE AUTHORITY HAVING JURISDICTION OR UNTIL A FINAL CERTIFICATE OF OCCUPANCY IS ISSUED.

EXCAVATION/TRENCHING AROUND TREES:
1. PROPOSED TRENCHING AND EXCAVATION IN CLOSE PROXIMITY TO TREE PROTECTION ZONES MAY REQUIRE COORDINATION WITH A CERTIFIED ARBORIST. IF MAIN LATERAL OR TAP ROOTS OR ARE FOUND, STOP WORK IN THE AREA IMMEDIATELY AND CONSULT A CERTIFIED ARBORIST.
2. WHERE TRENCHING IS REQUIRED WITHIN CRITICAL ROOT ZONE, AND HAS BEEN REVIEWED AND APPROVED BY A CERTIFIED ARBORIST, TUNNEL UNDER OR AROUND ROOTS BY HAND DIGGING OR BORING. DO NOT CUT MAIN LATERAL ROOTS OR TAP ROOTS. CLEANLY CUT/SEVER SMALLER ROOTS.
3. RELOCATE ROOTS IN BACKFILL AREAS WHEREVER POSSIBLE. DO NOT ALLOW EXPOSED ROOTS TO DRY OUT BEFORE PERMANENT BACKFILL IS PLACED. PROVIDE TEMPORARY EARTH COVER OR PACK WITH PEAT MOSS AND WRAP WITH BURLAP. WATER AND MAINTAIN IN MOIST CONDITION UNTIL RELOCATED AND COVERED WITH BACKFILL.

FENCING NOTES:
1. TEMPORARY FENCE SHALL BE 6' IN HEIGHT AND SET AS SHOWN ON PLANS.
2. SIGNAGE DESIGNATING THE PROTECTION ZONE AND PENALTIES FOR VIOLATIONS SHALL BE SECURED IN A PROMINENT LOCATION ON EACH PROTECTION FENCE.
3. THE AUTHORITY HAVING JURISDICTION SHALL APPROVE THE INSTALLED TREE PROTECTION FENCING PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
4. FENCE MATERIALS SHALL CONSIST OF METAL CHAIN LINK SECURED WITH 8' METAL POSTS.
5. MOVEMENT OR REMOVAL 0F FENCING REQUIRES APPROVAL BY THE AUTHORITY HAVING JURISDICTION.



4 C5.10 TREE PROTECTION FENCING

NTS

NOTE:
PROVIDE POST AND FOOTING PER DETAIL 1/C5.10

5 C5.10 NO PARKING SIGN

N.T.S.

1:1

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Exhibit K

Wetland Delineation for Maddax Woods Park at 5785 River Street West Linn, Oregon

(Township 2 South, Range 2 East, Section 30BD, Portion of Tax lot 800)

Prepared for:

City of West Linn
Parks & Recreation Department
22500 Salamo Road
West Linn, OR 97068

Prepared by

Michael See, Joe Thompson
John van Staveren
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, Oregon 97070
Telephone: (503) 570-0800

PHS Project Number: 6865

September 8, 2021

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- Figure 1: Vicinity Map (USGS)
- Figure 2: Tax Lot Map
- Figure 3: Wetlands Inventory Map (Local)
- Figure 4: Soil Survey Map
- Figure 5: Recent Aerial Photograph
- Figure 6: Wetland Delineation Map

APPENDIX B: Wetland Delineation Data Sheets
APPENDIX C: Study Area Photos
APPENDIX D: Wetland Definitions, Methodology (client only)

I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation for a 1.27-acre portion of the Maddax Woods Park in West Linn, Oregon (Township 2 South, Range 2 East, Section 30BD, a portion of tax lot 800). This report presents the results of PHS's delineation of the property. Figures, including maps depicting the locations of waters within the study area, are in Appendix A. Data sheets documenting study area conditions are provided in Appendix B. Ground-level photos are included in Appendix C. A discussion of the wetland delineation methodology (for the client) is provided in Appendix D.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The approximately 1.27-acre study area is located at 5785 River Street, West Linn, Oregon. The property consists primarily of mature second growth forest dominated by Douglas fir (*Pseudotsuga menziesii*, FACU), red alder (*Alnus rubra*, FAC), balsam poplar (*Populus balsamifera*, FAC) and big leaf maple (*Acer macrophyllum*, FACU). Landscaped lawn, gardens, and naturalized scrub-shrub habitat is present in lesser amounts. The study area is primarily a City park with walking trails and natural areas; however, a residence is located in the northwestern portion of the study area. The Willamette River forms the northern boundary of the study area. Elevations range between approximately 50 and 10 feet NAVD 88 according to the topographic survey provided by Andy Paris and Associates, Inc.

The Natural Resources Conservation Services (NRCS) mapped soils within the study area include Xerochrepts and Haploxerolls, very steep, and McBee silty clay loam. The McBee series is considered hydric for Clackamas County. The Xerochrepts and Haploxerolls unit consists of a complex of colluvium deposited on terrace escarpments. This unit features steep slopes and is well-drained.

B. Site Alterations

An examination of historical aerial photos shows that the study area has been largely unchanged since the 1950s. A residential building is present with landscaping and garden beds. The former owner of the property used it to construct and launch commercial boats. A gravel road, parking area and walking trails have been installed to promote recreation within the park. Subsurface drainage has been installed in some locations.

C. Precipitation Data and Analysis

Table 1 compares the average monthly precipitation at Oregon City WETS station (approximately 1 mile south of the study area) to the observed monthly precipitation for the three months prior to the April 16, and August 18, 2021, field work.

Table 1: Comparison of average precipitation from the Oregon City WETS station to observed precipitation at the Oregon City WETS station prior to the April and August 2021 wetland delineation field work.

Month	Average Precipitation[1]	30% Chance Will Have		Observed Precipitation[1]	Percent of Normal
		Less Than Average[1]	More Than Average[1]		
January	6.17	4.20	7.36	9.71	157
February	4.32	2.80	5.20	5.32	123
March	5.29	3.44	6.36	3.09	58
April	3.77	2.68	4.46	0.18	5
May	2.28	1.21	2.78	2.29	100
June	1.54	0.96	1.86	1.38	87
July	0.43	0.19	0.49	0.01	2

[1] WETS Table for the Oregon City, OR WETS station.

As shown in Table 1, observed precipitation was higher than the normal range during January and February, and below average range for March and April. Observed precipitation was 0.03 inches in the two weeks prior to the April 16 field investigation; no precipitation was recorded on April 16. A total accumulation of 38.2 inches was recorded for the water year at the time of the field investigation. This is approximately 90% of normal.

Precipitation was within normal range for May and June 2021, and well below normal for July 2021. No precipitation was recorded for the two weeks prior to and including August 18; however, this amount of precipitation is not atypical for the dry season within the Willamette Valley. A total accumulation of 42.17 inches was recorded for the water year as of the August 18 field work. This amount is slightly under the normal average which is 42.87 inches. PHS considers the hydrologic conditions to be within normal range for the purposes of the wetland delineation.

D. Methods

As stated above, PHS conducted the delineation field work on April 16 and August 18, 2021. PHS delineated the study area using the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y 87 1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (*The Regional Supplement), which characterize wetlands based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation in accordance with the routine onsite determination method.

The boundaries of two wetlands were delineated based on the presence of wetland indicators outlined in the Regional Supplement mentioned above. Onsite wetlands were present within slight changes in topography where shallow groundwater expresses near the surface, and hydrophytic vegetation is present. Both onsite wetlands receive water from offsite headwater streams upslope, and flow into subsurface drains.

The ordinary high water (OHW) of the onsite streams and the Willamette River was delineated based on guidelines outlined in the Department of State Lands *Removal Fill Guide*, the U.S. Army Corps of Engineers Regulatory Guidance Letter 05-05: *Ordinary High Water Mark Identification,* and the U.S. Army Corps of Engineers' *Field Indicators of OHW*, *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States.* Evidence of OHW included scour within the creeks and river where sediment along the channel walls were clear of any vegetation, deposition of debris and sediment, changes in sediment characteristics and vegetation, and exposed roots.

E. Description of all Wetlands and Other Non-Wetland Waters

PHS identified and delineated two wetlands and three waters of the state/US within the study area. A description of each delineated resource is provided below.

Willamette River

The Willamette River forms the northern boundary of the study area, and flows west. Approximately 0.14 acre/ 6,025 square feet of the river is located within the study area. The OHW was determined by field indicators that included evidence of scour and disturbance of vegetation along its banks, and deposition of sediment and debris along the upper reaches of the waterline. . Riparian vegetation consisted primarily of Evergreen Traveler's-Joy (*Clematis vitalba*) and Himalayan blackberry (*Rubus armeniacus*). The Cowardin classification is riverine, tidal, unconsolidated bottom, (R1UB) and HGM classification is Estuarine Fringe Riverine.

Stream 1

Stream 1 (0.02 acre/ 1,010 square feet) has a Cowardin classification of riverine, upper perennial, rock bottom (R3RB), and a Hydrogeomorphic (HGM) classification of Riverine Flow-Through (RFT). Stream 1 enters the study area from the abutting property to the east, then flows north until it joins the Willamette River. Substrates within Stream 1 consist primarily of cobbles, gravel, and sand. Riparian vegetation along Stream 1 was dominated by bigleaf maple, red alder, balsam poplar, and Himalayan blackberry (*Rubus armeniacus*, FAC). Stream 1 is identified as Maddax Creek on the West Linn Local Wetland Inventory (LWI) map.

Stream 2

Stream 2 (0.004 acre/ 176 square feet) has a Cowardin classification of riverine intermittent stream bed (R4SB), and a HGM classification of RFT. Riparian vegetation along Stream 2 is immature, and primarily consists of Himalayan blackberry. Stream 2 originates approximately 50-feet from the Willamette River. Substrates within Stream 2 consist of cobbles, gravel, and hardpan clay. Stream 2 receives water from Wetland B through subsurface drainage, and adjacent residential and park infrastructure.

Wetland A

Wetland A (0.01 acre / 301 square feet) is a palustrine-emergent, persistent seasonally flooded/saturated wetland (PEM1C) with HGM classification of riverine impounding. The wetland is fed by a headwater stream immediately south of the study area, and additional hydrology is provided by shallow groundwater.

Wetland A was sparsely vegetated due to recent seasonal inundation. The dominant species present were reed canarygrass (*Phalaris arundinacea*, FACW), lesser celandine (*Ficaria verna*, FAC), climbing nightshade (*Solanum dulcamara*, FAC), and spotted touch-me-not (*Impatiens capensis*, FACW).

The soils within Wetland A exhibited the hydric soil indicator redox dark surface (F6). Wetland A exhibited several wetland hydrology indicators including sediment deposits, sparsely vegetated concave surface, oxidized rhizospheres on living roots, water-stained leaves, geomorphic position, and FAC-neutral test. A subsurface drain and retaining wall impound water within the wetland. It is likely that prior to development of the residential property and boat launch, Wetland A was a flowing channel with a direct connection to the Willamette River. Water from Wetland A flows into a subsurface drain, which subsequently discharges into Stream 2, and eventually the Willamette River.

Wetland B

Wetland B (0.02 acre/ 1,058 square feet) is a PEM1C wetland, with a HGM classification of riverine impounding (RI). The wetland is fed by a headwater stream immediately south of the study area; hydrology is supplemented by shallow groundwater. Dominant plant species observed within Wetland B consists of reed canarygrass, tall manna grass (*Glyceria elata*, FACW) and fescue (*Festuca* sp. (FAC)).

The soils within Wetland B exhibited the hydric soil indicator redox dark surface (F6). Wetland hydrology indicators included oxidized rhizospheres on living roots, geomorphic position, and FAC-neutral test. A subsurface drain and retaining wall impound water within the wetland. Similar to Wetland A, Wetland B was likely an open flowing tributary to the Willamette River prior to anthropogenic development within the study area. Water from Wetland B also flows into a subsurface drain, discharges into Stream 2, and eventually the Willamette River.

F. Deviation from Local or National Wetland Inventories

The City of West Linn's LWI does not depict any wetland areas, but it does label a possible wetland within the study area boundary. The possible wetland identified would roughly correspond with Wetland A. The LWI also identifies three potentially jurisdictional drainages within the tax lot. One of these corresponds with Stream 1 and is identified as Maddax Creek on the LWI Map, the alignment of this feature on the LWI is slightly different than the results of the field investigations. The other two drainages consist of the upslope areas of Wetlands A and B but are located immediately south of the study area offsite. The discrepancies between the LWI and the results of the field investigation are the result of limited ground-truthing of the LWI information.

G. Mapping Method

PHS flagged the limits of the stream/channel within the study area with blue flagging and the sample points with green flagging. Andy Paris and Associates Inc., then surveyed the delineated boundaries. Wetland and stream boundaries have an accuracy of sub-centimeter. Sample points were located by field staff on aerial photograph or survey plat and placed by hand; therefore their accuracy is +/- 9 feet.

H. Additional Information

None.

I. Results and Conclusions

PHS delineated two wetlands and three waters of the state/US within the study area, one of which is a portion of the Willamette River. Table 2 provides a summary of wetlands by Cowardin and HGM classification, as well as acreages within the study area.

Table 2: Summary of Wetlands and Other Waters within the Study Area

Feature	Area (acre / square feet)	Cowardin Class	HGM Class
Willamette River	0.14 / 6,025	R1UB	Estuarine Fringe Riverine
Stream 1 (Maddax Creek)	0.02 / 1,010	R3RB	Riverine Flow Through
Stream 2	0.004 / 176	R4SB	Riverine Flow Through
Total Waters	**7,211 / 0.16**		
Wetland A	0.01 / 301	PEM1C	Riverine Impounding
Wetland B	0.02 / 1,058	PEM1C	Riverine Impounding
Total Wetland	**1,359 / 0.03**		

J. Required Disclaimer

This report documents the investigation, best professional judgment, and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

III. REFERENCES

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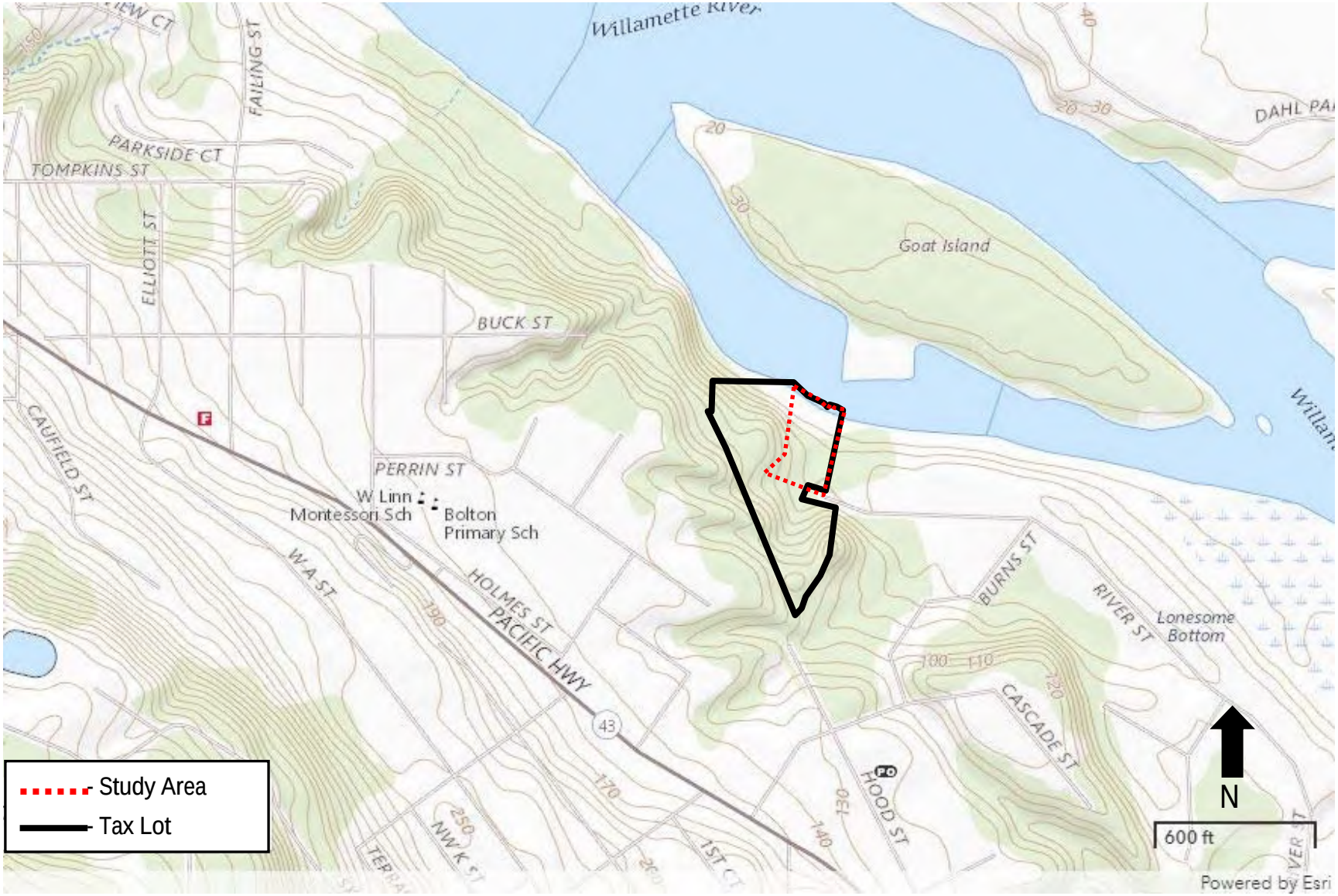
U.S. Geological Survey, 2020. *7.5 topographic map. Oregon City, Oregon*

Winterbrook Planning, 2005. *West Linn Local Wetland Inventory*

Appendix A

Figures

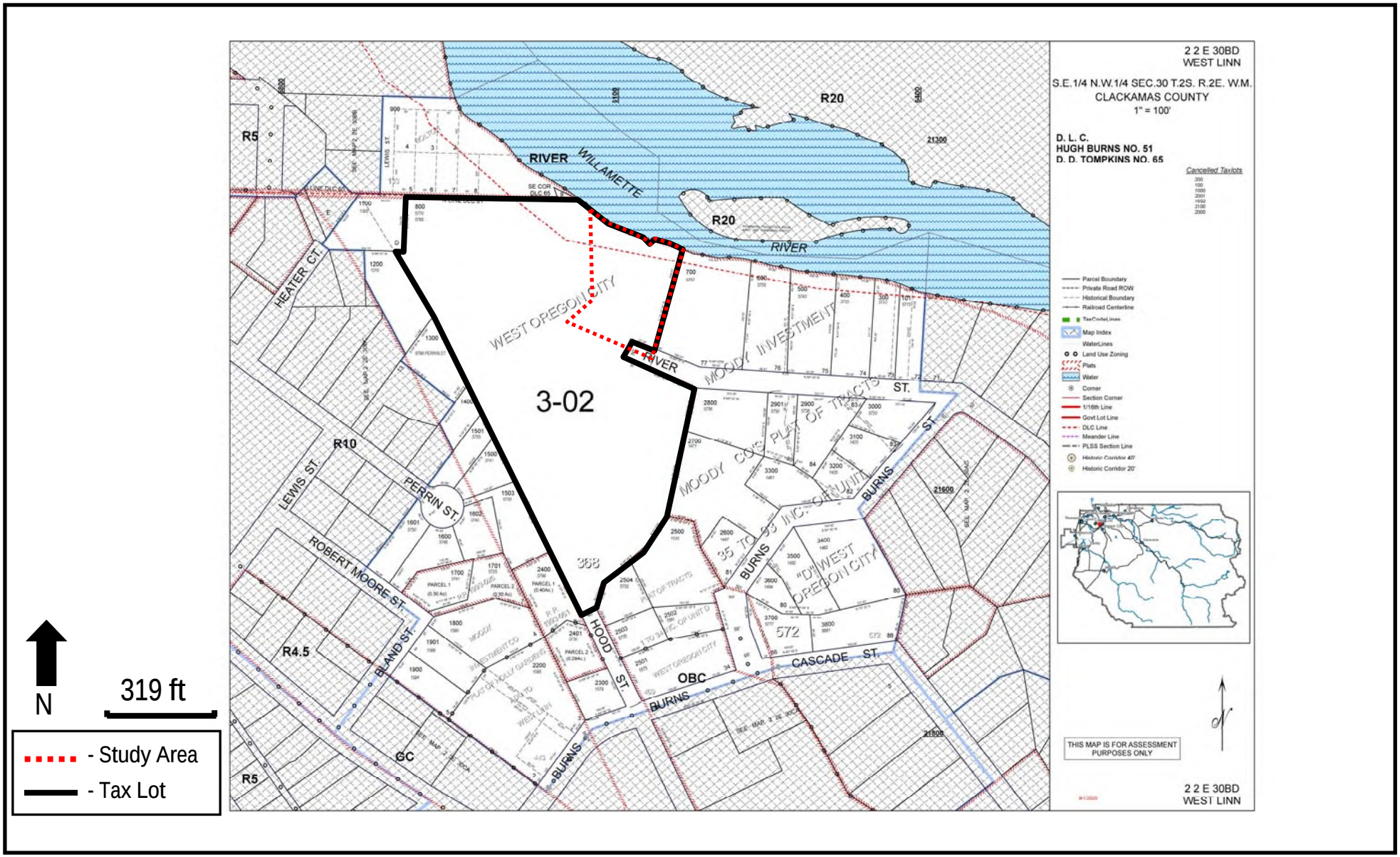


Project #6568
817/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
Maddax Woods Park – 5785 River Street, West Linn, Oregon
United States Geological Survey (USGS) Oregon City, Oregon 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE
1



Project #6568
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Tax Lot Map
Maddax Woods Park – 5785 River Street, West Linn, Oregon
The Oregon Map (ormap.net)

FIGURE
2

Legend

- Wetlands, Winterbrook Planning 2002
- Field Verified Wetlands, Winterbrook Planning 2002
- Possible Wetlands, Winterbrook Planning 2002
- Wetland Sample Plots, Winterbrook Planning 2002
- Potential Jurisdictional Drainages, West Linn GIS 2002
- Potential Jurisdictional Waters, West Linn GIS 2002
- Taxlot COGO, West Linn GIS 2002
- Basin Boundaries, Winterbrook Planning 2002
- Study Area Boundary, Winterbrook Planning 2003

Wetland unique ID code referenced in black (eg. FR-01)
Wetland sample plots referenced in dark green (eg. BE1-1, BE1-2)
Possible Wetlands referenced in dark blue (eg. PW)
DSL delineation numbers referenced in dark brown (eg. det98-0092)
Basins referenced in maroon (eg. Bemet)
PLS system referenced in orange (eg. 3s1e01a)

Project #6568
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Local Wetland Inventory
Maddax Woods Park – 5785 River Street, West Linn, Oregon
Winterbrook Planning, 2005

FIGURE
3

Soils Legend

56 - McBee silty clay loam (hydric)

92F - Xerochrepts and Haploxerolls, very steep

Project #6568
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Soils
Maddax Woods Park – 5785 River Street, West Linn, Oregon
Natural Resources Conservation Services, Web Soil Survey, 2020
(websoilsurvey.sc.egov.usda.gov)

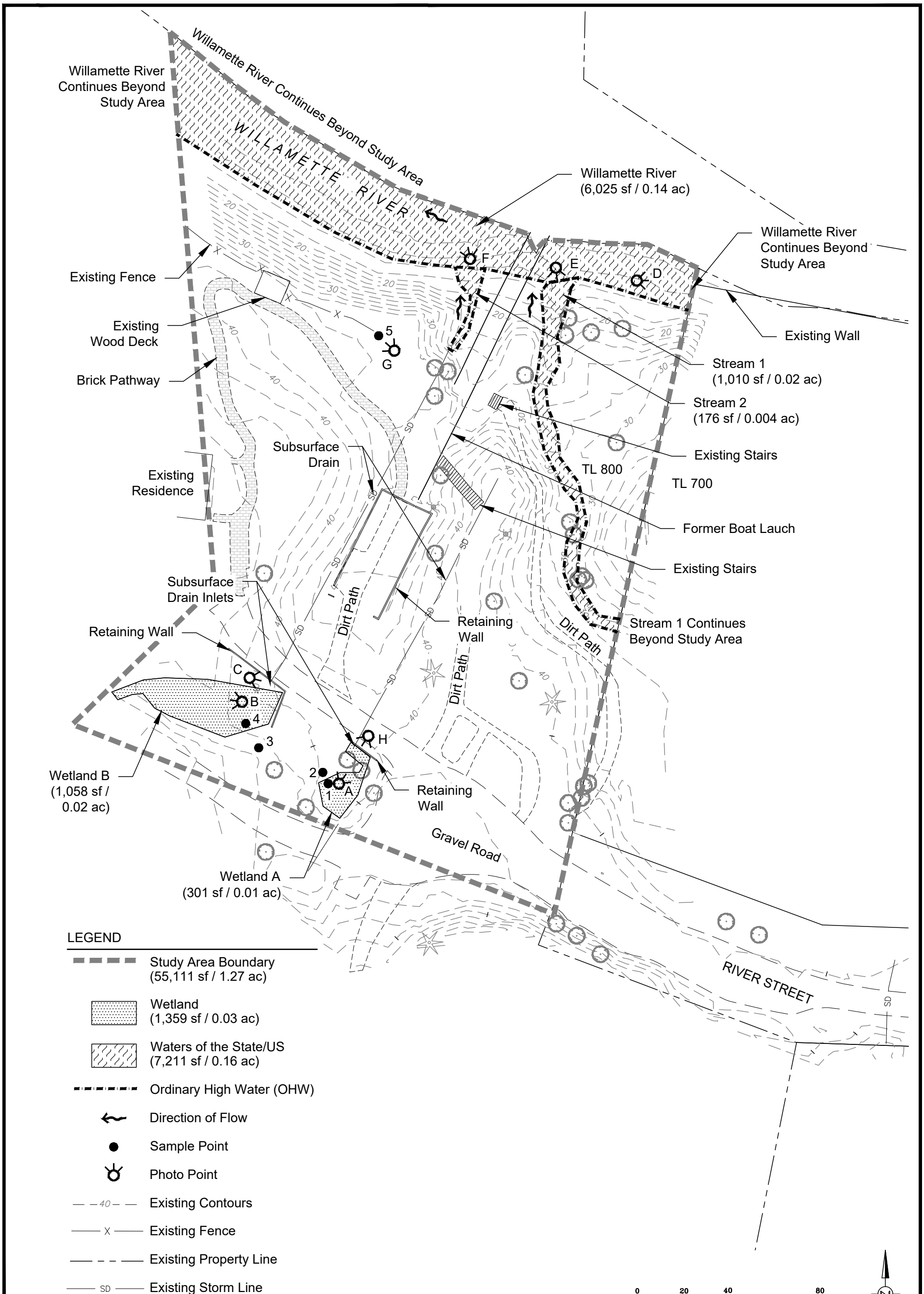
FIGURE
4

Project #6568
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Aerial Photo
Maddax Woods Park – 5785 River Street, West Linn, Oregon
GoogleEarth, 2020

FIGURE
5



Survey provided by Andy Paris and Associates, Inc.
Survey accuracy is sub-centimeter.
Wetland and stream boundaries have an accuracy of sub-centimeter
Sample points were placed by hand and have accuracy of +/- 9 feet.

Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Wetland Delineation
Maddax Woods Park - 5785 River Street - West Linn, Oregon

FIGURE 6

9-1-2021

Appendix B

Wetland Delineation Data Sheets

PHS # 6865

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Maddax Woods Park City/County: West Linn/Clackamas Sampling Date: 4/16/2021

Applicant/Owner: City of West Linn State: OR Sampling Point: 1

Investigator(s): JT/MS Section, Township, Range: Section 30BD, Township 2 South, Range 2 East

Landform (hillslope, terrace, etc.:) Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR): LRR A Lat: 45.3700 Long: -122.6136 Datum: WGS84

Soil Map Unit Name: Xerochrepts and Haploxerolls, very steep NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is Sampled Area within a Wetland?**	Yes X No ____
Hydric Soil Present?	Yes X	No ____		
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Phalaris arundinacea*	10	X	FACW
2 *Ficaria verna*	10	X	FACW
3 *Solanum dulcamara*	5		FAC
4 *Impatiens capensis*	5		FACW
5			
6			
7			
8			
	30	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 70

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- ____ 1- Rapid Test for Hydrophytic Vegetation
- X 2- Dominance Test is >50%
- ____ 3-Prevalence Index is ≤ 3.0[1]
- ____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ 5- Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6865 Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	**10YR 3/1**	**100**					**Silty Clay Loam**	
6-12	**10YR 3/1**	**80**	**5YR 3/4**	**20**	**C**	**M,PL**	**Silty Clay Loam**	**Medium/Coarse**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) **(except MLRA 1)**
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Depleted Below Dark Surface (A11)		Depleted Matrix (F3)
	Thick Dark Surface (A12)	X	Redox Dark Surface (F6)
	Sandy Mucky Mineral (S1)		Depleted Dark Surface (F7)
	Sandy Gleyed Matrix (S4)		Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Very Shallow Dark Surface (TF12)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
	High Water Table (A2)		
	Saturation (A3)		Salt Crust (B11)
	Water Marks (B1)		Aquatic Invertebrates (B13)
X	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)
	Drift Deposits (B3)	X	Oxidized Rhizospheres along Living Roots (C3)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)
X	Sparsely Vegetated Concave Surface (B8)		

Secondary Indicators (2 or more required)

X	Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
	Drainage Patterns (B10)
	Dry-Season Water Table (C2)
	Saturation Visible on Aerial Imagery (C9)
X	Geomorphic Position (D2)
	Shallow Aquitard (D3)
X	Fac-Neutral Test (D5)
	Raised Ant Mounds (D6) **(LRR A)**
	Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	>12
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	>12

Wetland Hydrology Present? Yes X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6865

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Maddax Woods Park City/County: West Linn/Clackamas Sampling Date: 4/16/2021

Applicant/Owner: City of West Linn State: OR Sampling Point: 2

Investigator(s): JT/MS Section, Township, Range: Section 30BD, Township 2 South, Range 2 East

Landform (hillslope, terrace, etc.:) Slope Local relief (concave, convex, none): None Slope (%): 5

Subregion (LRR): LRR A Lat: 45.3700 Long: -122.6136 Datum: WGS84

Soil Map Unit Name: Xerochrepts and Haploxerolls, very steep NWI Classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is Sampled Area within a Wetland?**	Yes ____ No X
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Acer macrophyllum*	30	X	FACU
2 *Metasequoia glyptostroboides*	10	X	UPL
3			
4			
	40	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Ficaria verna*	35	X	FACW
2 *Poa sp.*	45	X	(FAC)
3			
4			
5			
6			
7			
8			
	80	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species	35	x 2 =	70
FAC Species	45	x 3 =	135
FACU Species	30	x 4 =	120
UPL Species	10	x 5 =	50
Column Totals	120 (A)		375 (B)

Prevalence Index =B/A = 3.13

Hydrophytic Vegetation Indicators:

____ 1- Rapid Test for Hydrophytic Vegetation

____ 2- Dominance Test is >50%

____ 3-Prevalence Index is ≤ 3.0[1]

____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ 5- Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

PHS # **6865** Sampling Point: **2**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	**10YR 4/3**	**100**					**Silt Loam**	
9-14+	**10YR 3/3**	**100**					**Silt Loam**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ____ 2 cm Muck (A10)
- ____ Red Parent Material (TF2)
- ____ Very Shallow Dark Surface (TF12)
- ____ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes ____ **No** **X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ 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 Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- ____ Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
- ____ Salt Crust (B11)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Plowed Soils (C6)
- ____ Stunted or Stressed Plants (D1) **(LRR A)**
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Fac-Neutral Test (D5)
- ____ Raised Ant Mounds (D6) **(LRR A)**
- ____ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	____	No	**X**	Depth (inches):	____
Water Table Present?	Yes	____	No	**X**	Depth (inches):	**>14**
Saturation Present? (includes capillary fringe)	Yes	____	No	**X**	Depth (inches):	**>14**

Wetland Hydrology Present?

Yes ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6865

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Maddax Woods Park City/County: West Linn/Clackamas Sampling Date: 4/16/2021

Applicant/Owner: City of West Linn State: OR Sampling Point: 3

Investigator(s): JT/MS Section, Township, Range: Section 30BD, Township 2 South, Range 2 East

Landform (hillslope, terrace, etc.:) Flat Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): LRR A Lat: 45.3701 Long: -122.6137 Datum: WGS84

Soil Map Unit Name: Xerochrepts and Haploxerolls, very steep NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	Is Sampled Area within a Wetland?	Yes ____ No X
Hydric Soil Present?	Yes	No X		
Wetland Hydrology Present?	Yes	No X		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: 30)			
1 *Acer macrophyllum*	25	X	FACU
2			
3			
4			
	25	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Poa sp*	50	X	(FAC)
2 *Ranunculus repens*	25	X	FAC
3 *Prunella vulgaris*	15		FACU
4 *Viola sp.*	10		(FAC)
5 *Arum italicum*	5		(FAC)
6			
7			
8			
	105	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- ____ 1- Rapid Test for Hydrophytic Vegetation
- X 2- Dominance Test is >50%
- ____ 3-Prevalence Index is ≤ 3.0[1]
- ____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ 5- Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6865 Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/1	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Fac-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___		
Water Table Present?	Yes ___	No X	Depth (inches): >14	**Wetland Hydrology Present?**	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): >14	**Yes** ___	**No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6865

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Maddax Woods Park City/County: West Linn/Clackamas Sampling Date: 4/16/2021

Applicant/Owner: City of West Linn State: OR Sampling Point: 4

Investigator(s): JT/MS Section, Township, Range: Section 30BD, Township 2 South, Range 2 East

Landform (hillslope, terrace, etc.:) Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR): LRR A Lat: 45.3701 Long: -122.6137 Datum: WGS84

Soil Map Unit Name: Xerochrepts and Haploxerolls, very steep NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is Sampled Area within a Wetland?**	Yes X No ____
Hydric Soil Present?	Yes X	No ____		
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Festuca sp*	35	X	(FAC)
2 *Glyceria elata*	20	X	FACW
3 *Phalaris arundinacea*	20	X	FACW
4 *Impatiens capensis*	15		FACW
5 *Tolmiea menziesii*	10		FAC
6 *Ficaria verna*	10		FACW
7 *Arum italicum*	5		(FAC)
8			
	115	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species		x 2 =	0
FAC Species		x 3 =	0
FACU Species		x 4 =	0
UPL Species		x 5 =	0
Column Totals	0 (A)		0 (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- ____ 1- Rapid Test for Hydrophytic Vegetation
- X 2- Dominance Test is >50%
- ____ 3-Prevalence Index is ≤ 3.0[1]
- ____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)
- ____ 5- Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

PHS # 6865 Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Silt Loam	
6-12	10YR 4/2	95	10YR 6/6	5	C	M,PL	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X Fac-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	___	
Water Table Present?	Yes ___	No X	Depth (inches):	>12	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>12	

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 6865

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Maddax Woods Park City/County: West Linn/Clackamas Sampling Date: 8/18/2021

Applicant/Owner: City of West Linn State: OR Sampling Point: 5

Investigator(s): MS Section, Township, Range: Section 30BD, Township 2 South, Range 2 East

Landform (hillslope, terrace, etc.:) Terrace Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): LRR A Lat: 45.3700 Long: -122.6136 Datum: WGS84

Soil Map Unit Name: McBee silty clay loam NWI Classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is Sampled Area within a Wetland?**	Yes ____ No X
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1 *Rubus armeniacus*	25	X	FAC
2 *Sambucus racemosa*	10	X	FACU
3 *Rubus ursinus*	10	X	FACU
4			
5			
	45	= Total Cover	
Herb Stratum (plot size: 5)			
1 *Stachys mexicana*	10		FACW
2 *Hypochaeris radicata*	15		FACU
3 *Agrostis capillaris*	65	X	FAC
4 *Lolium perenne*	15		FAC
5 *Silene latifolia*	5		(UPL)
6			
7			
8			
	110	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1 *Clematis vitalba*	40	X	FAC
2			
	40	= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	0
FACW species	10	x 2 =	20
FAC Species	145	x 3 =	435
FACU Species	45	x 4 =	180
UPL Species	5	x 5 =	25
Column Totals	205 (A)		660 (B)

Prevalence Index =B/A = 3.22

Hydrophytic Vegetation Indicators:

____ 1- Rapid Test for Hydrophytic Vegetation

____ 2- Dominance Test is >50%

____ 3-Prevalence Index is ≤ 3.0[1]

____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ 5- Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

Stachys mexicana is growing in nearby cultivated upland garden, this species may be an adventive population.

SOIL

PHS # 6865 Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16+	**10YR 3/3**	**100**					**Fine Sandy Loam**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ 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 Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Fac-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	___	
Water Table Present?	Yes ___	No X	Depth (inches):	>16	**Wetland Hydrology Present?**
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>16	**Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C

Study Area Photographs
(ground level)

Photo A:

View of Wetland A, looking northeast.

Photo B:

View of Wetland B, looking northwest.

Project #6865
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Maddax Woods Park - 5785 River Street, West Linn, Oregon

Photos taken April 16, 2021

Photo C:

View of gravel drive and landscaping, with Wetland B in the foreground, looking east.

Photo D:

View of Willamette River from northeast portion of study area, looking east.

Project #6865
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Maddax Woods Park - 5785 River Street, West Linn, Oregon

Photos taken April 16, 2021

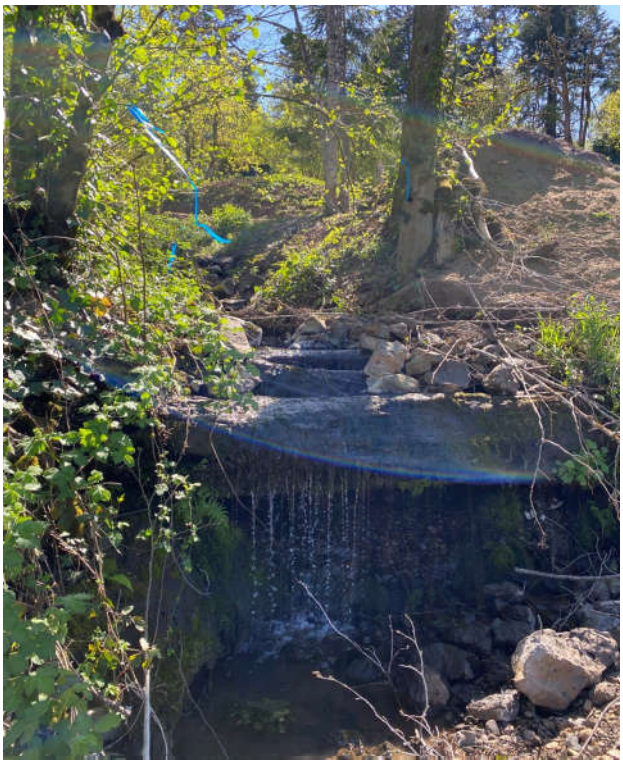


Photo E:

View of Stream 1 looking upstream (south) from near the confluence with the Willamette River.

Photo F:

View of Stream 2's confluence with the Willamette River, looking north.

Project #6865
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Maddax Woods Park - 5785 River Street, West Linn, Oregon

Photos taken April 16, 2021

Photo G:

View of Sample Point 5, looking northwest.

Photo H:

View of subsurface drain inlet within Wetland A, looking south.

Project #6865
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Maddax Woods Park - 5785 River Street, West Linn, Oregon

Photos taken April 16, 2021

Exhibit L

Oregon

Kate Brown, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.oregon.gov/dsl

State Land Board

Kate Brown
Governor

Shemia Fagan
Secretary of State

Tobias Read
State Treasurer

January 6, 2022

City of West Linn Parks & Recreation Department
Attn: Ken Warner
22500 Salamo Road
West Linn, OR 97068

Re: WD # 2021-0507 **Approved with Revisions**
Wetland Delineation Report for Maddax Woods Park
Clackamas County; T2S R2E S30BD TL800 (Portion)

Dear Ken Warner:

The Department of State Lands has reviewed the wetland delineation report prepared by Pacific Habitat Services for the site referenced above. Please note that the study area includes only a portion of the tax lot described above (see the attached map). Based upon the information presented in the report, a site visit on November 9, 2021, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in revised Figure 6 of the report. Please replace all copies of the preliminary wetland map with this final Department-approved map.

Within the study area, 2 wetlands (Wetland A and B, totaling approximately 0.03 acres) and 3 waterways (Willamette River, Stream 1, and Stream 2) were identified. The wetlands and waterways are subject to the permit requirements of the state Removal-Fill Law. Normally, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined). However, the Willamette River is an essential salmonid stream. Therefore, fill or removal of any amount of material below its OHWL may require a state permit.

This concurrence is for purposes of the state Removal-Fill Law only. We recommend that you attach a copy of this concurrence letter to any subsequent state permit application to speed application review. Federal, other state agencies or local permit requirements may apply as well. The U.S. Army Corps of Engineers will determine jurisdiction under the Clean Water Act, which may require submittal of a complete Wetland Delineation Report.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. If you have any questions, please contact Chris Stevenson, PWS, the Jurisdiction Coordinator for Clackamas County at (503) 986-5246.

Sincerely,

Peter Ryan, SPWS
Aquatic Resource Specialist

Enclosures

ec: Michael See, Pacific Habitat Services
City of West Linn Planning Department
Trey Fraley, Corps of Engineers
Katie Blauvelt, DSL

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submittal is not "complete" unless the fully completed and signed report cover form and the required fee are submitted. Attach this form to the front of an unbound report or include a hard copy of the completed form with a CD/DVD that includes a single PDF file of the report cover form and report (minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.** A single PDF attachment of the completed cover from and report may be e-mailed to **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail instructions on how to access the file from your ftp or other file sharing website. Fees can be paid by check or credit card. Make the check payable to the Oregon Department of State Lands. To pay the fee by credit card, call 503-986-5200.

☐ Applicant ☒ Owner Name, Firm and Address: City of West Linn Parks & Recreation Department, Att: Ken Warner 22500 Salamo Road West Linn, OR 97068	Business phone (503) 742-6047 Mobile phone # (optional) E-mail: kwarner@westlinnoregon.gov
☐ Authorized Legal Agent, Name and Address:	Business phone # Mobile phone # E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Ken Warner Signature: [signature]

Date: **9/8/2021**

Project and Site Information (using decimal degree format for lat/long.,enter centroid of site or start & end points of linear project)

Project Name: Maddax Woods Park	Latitude: **45.37026953** Longitude: **-122.61345644**
Proposed Use: Park/open space	Tax Map # 22 E 30 BD
Project Street Address (or other descriptive location): 5785 River St, West Linn, OR 97068	Township 2S Range 2E Section 30 QQ: Tax Lot(s) **Portion of TL 800**
City: West Linn County: Clackamas	Waterway: Willamette River River Mile: 25 NWI Quad(s): Oregon City, OR

Wetland Delineation Information

Wetland Consultant Name, Firm and Address: Pacific Habitat Services, Inc. Attn: Michael See 9450 SW Commerce Circle, Suite 180, Wilsonville, OR 97070	Phone # **503-570-0800** Mobile phone # E-mail: ms@pacifichabitat.com

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.

Consultant Signature: [signature]	Date: 9/8/2021

Primary Contact for report review and site access is ☒ Consultant ☐ Applicant/Owner ☐ Authorized Agent

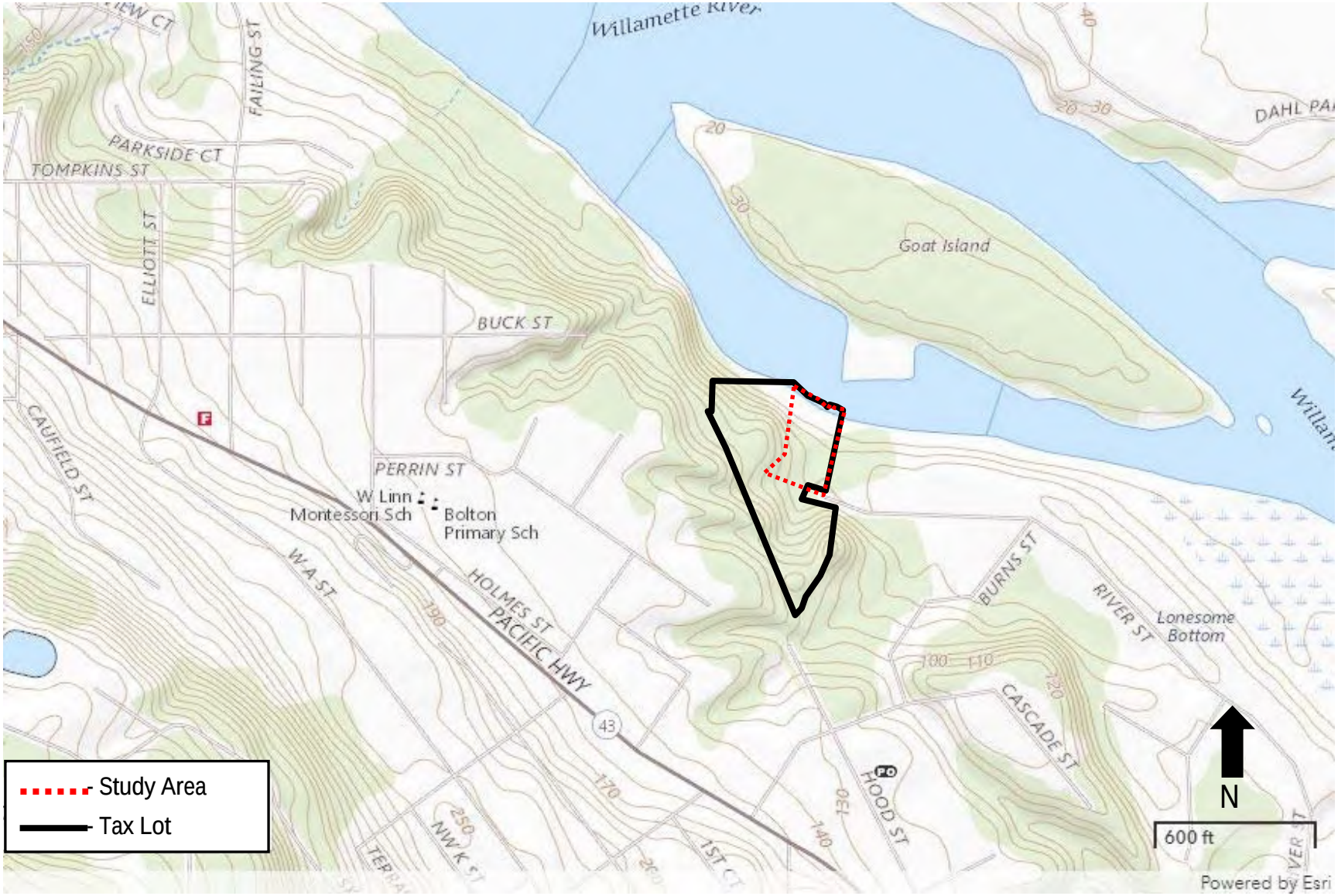
Wetland/Waters Present? ☒ Yes ☐ No | Study Area size: 1.27 Acres Total Wetland Acreage: 0.03 Acres

Check Box Below if Applicable:	**Fees:**
☐ R-F permit application submitted	☐ Fee payment submitted **$**
☐ Mitigation bank site	☐ Fee ($100) for resubmittal of rejected report
☐ Wetland restoration/enhancement project (not mitigation)	☐ No fee for request for reissuance of an expired report
☐ Industrial Land Certification Program Site	
☐ Reissuance of a recently expired delineation Previous DSL # Expiration date _____	

Other Information:	Y	N	
Has previous delineation/application been made on parcel?	☐	☐	If known, previous DSL #
Does LWI, if any, show wetland or waters on parcel?	☐	☐	

For Office Use Only

DSL Reviewer: CS	Fee Paid Date: ____ / ____ / ____	DSL WD # 2021-0507
Date Delineation Received: 09 / 13 / 2021	DSL Project # _____	DSL Site # _____
Scanned: ☐ Final Scan: ☐	DSL WN # _____	DSL App. # _____

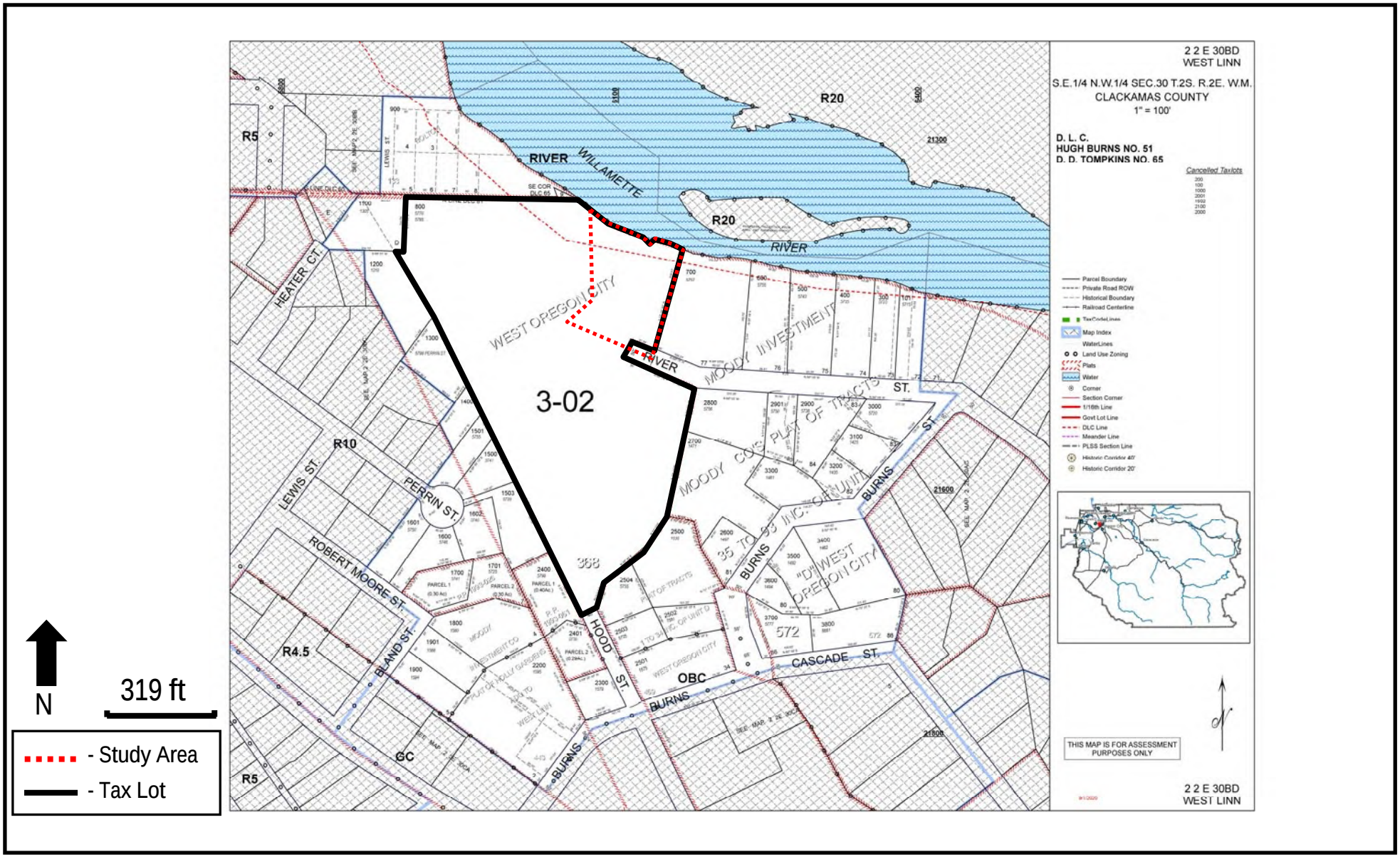


Project #6568
817/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
Maddax Woods Park – 5785 River Street, West Linn, Oregon
United States Geological Survey (USGS) Oregon City, Oregon 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE
1

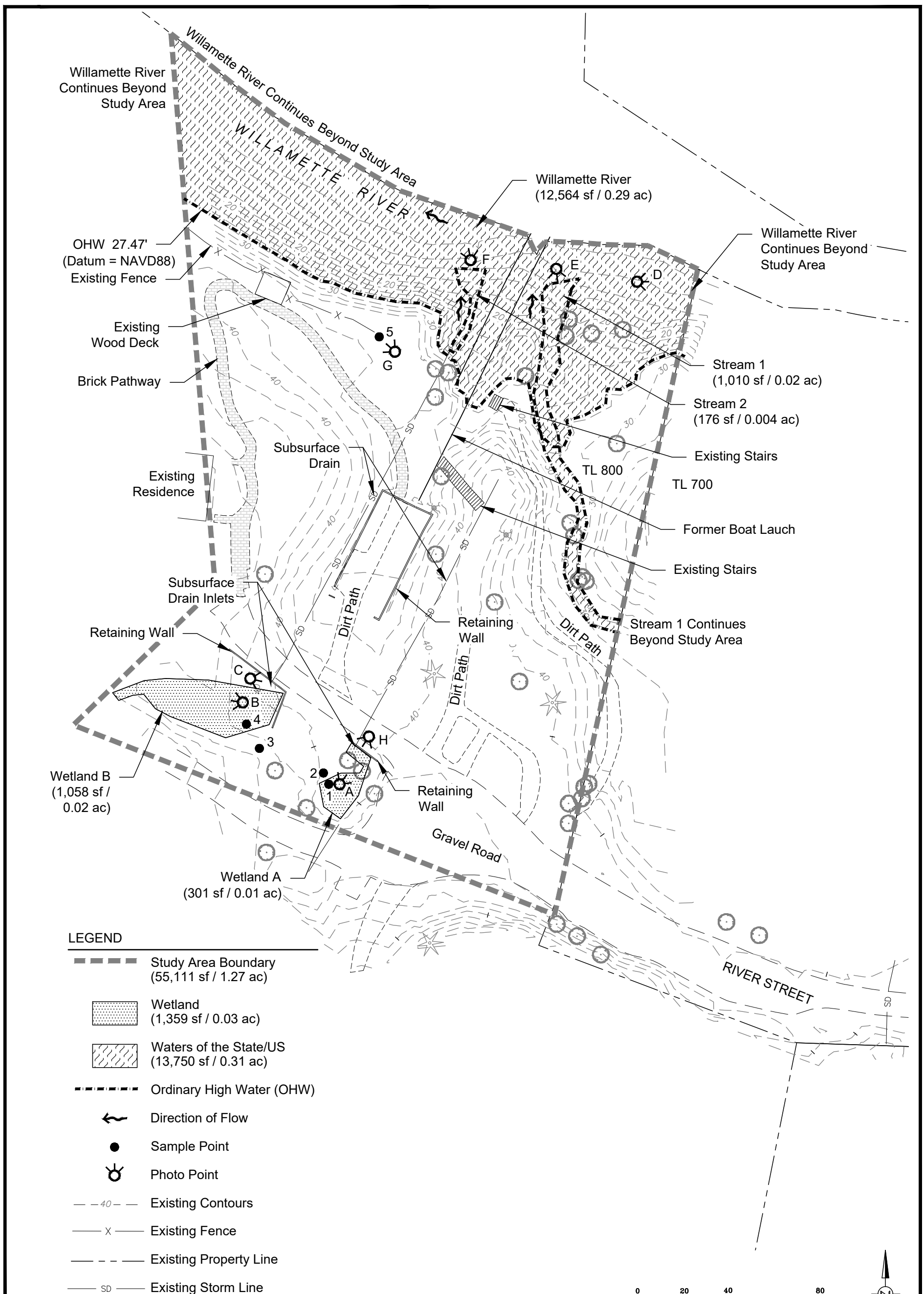


Project #6568
8/17/2021

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Tax Lot Map
Maddax Woods Park – 5785 River Street, West Linn, Oregon
The Oregon Map (ormap.net)

FIGURE
2



Survey provided by Andy Parris and Associates, Inc.
Survey accuracy is sub-centimeter.
Wetland and stream boundaries have an accuracy of sub-centimeter
Sample points were placed by hand and have accuracy of +/- 9 feet.

Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

DSL WD # 2021-0507
Approval Issued 1/6/2022
Approval Expires 1/6/2027

Wetland Delineation
Maddax Woods Park - 5785 River Street - West Linn, Oregon

FIGURE 6

12-15-2021

Exhibit M

MACKENZIE.

P 503.224.9560 ▪ F 503.228.1285 ▪ W MCKNZE.COM
RiverEast Center, 1515 SE Water Avenue, #100, Portland, OR 97214

Portland, Oregon ▪ Vancouver, Washington ▪ Seattle, Washington

MEMORANDUM

DATE:	October 4, 2023
TO:	**City of West Linn Planning Division**
FROM:	Ralph Henderson, P.E
PROJECT NAME:	Maddax Woods Park Driveway and Parking Improvements
PROJECT #:	2190399.01
SUBJECT:	**Floodplain – Cut-Fill balance**

The Maddax Woods Park site is within the 100-year floodplain.

The Willamette River is at the north side of the site, and the 100-year floodplain extends just to the south of the parking area, as shown on the grading plan at elevation 47.5' (NAVD 88). Therefore, the extents of the proposed redeveloped portion of the park including all of the parking lot is within the 100-year floodplain.

The extents of the site grading is limited to the existing gravel parking / maneuvering area on site. The project involves removing the gravel and the area below it down to the subgrade of the proposed pervious block paving system. Then the paving system with base materials will be installed to result in paving system finished grades matching existing gravel grades.

The existing gravel area is 6,973 SF. This will be excavated to the depth of the proposed paving system – 16 inches. This will result in an excavation volume of 6,973 SF x 1,33 FT = 9,274 CF.

The fill volume will be exactly the same, since the project will replace the excavated volume with the new paving system. The proposed fill volume is therefore the paving system volume which is 6,973 SF x 1.33 FT = 9,274 CF.

Therefore, the cut and fill will balance on the site.

c: Brian Varricchione (Mackenzie)

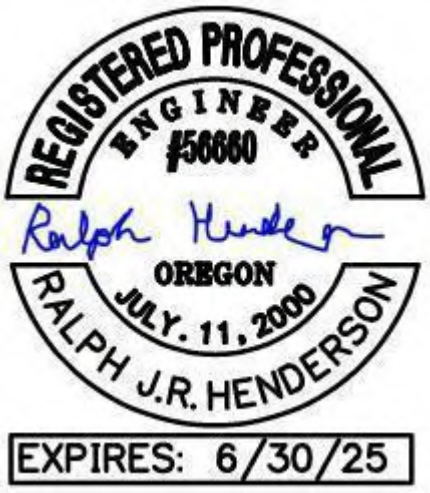


Exhibit N

MACKENZIE.

PRELIMINARY STORMWATER REPORT

To
City of West Linn

For
Maddax Woods Park
5785 River Street,
West Linn, OR

Dated
October 4, 2023

Project Number
2190399.01

MACKENZIE
Since 1960

RiverEast Center | 1515 SE Water Avenue, Suite 100, Portland, OR 97214
T 503.224.9560 | F 503.228.1285 | www.mcknze.com

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Proposed Improvements 1
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Figure 2: Site Plan 2

I. PROJECT OVERVIEW AND DESCRIPTION

The proposed Maddax Wood Park project is located at the west end of River Street in West Linn. The site is a public park with many trees and consists of existing trails, open spaces and a gravel parking area. The Willamette River is at the north side of the park (opposite side of the park from the proposed improvements). The project scope consists of replacing the gravel parking area with pervious paving.

Existing Conditions

The site, Maddax Woods Park, consists of a single 9.17-acre parcel at the west end of River Street. The eastern portion of the site is traversed by a stream (Maddax Creek) flowing generally from the southeast to the northwest a short distance from its confluence with the Willamette River. There are also two drainage ditches/tributaries that flow from west to east through the site before combining in a single pipe that discharges to Maddax Creek.

A significant portion of the property is within the 100-year floodplain as defined by the Federal Emergency Management Agency (FEMA). The City regulates this area with its Flood Management Area overlay zone. The site also has two small wetlands located west of the driveway. Portions of the property have been identified as slide areas by the Oregon Department of Geology and Mineral Industries.

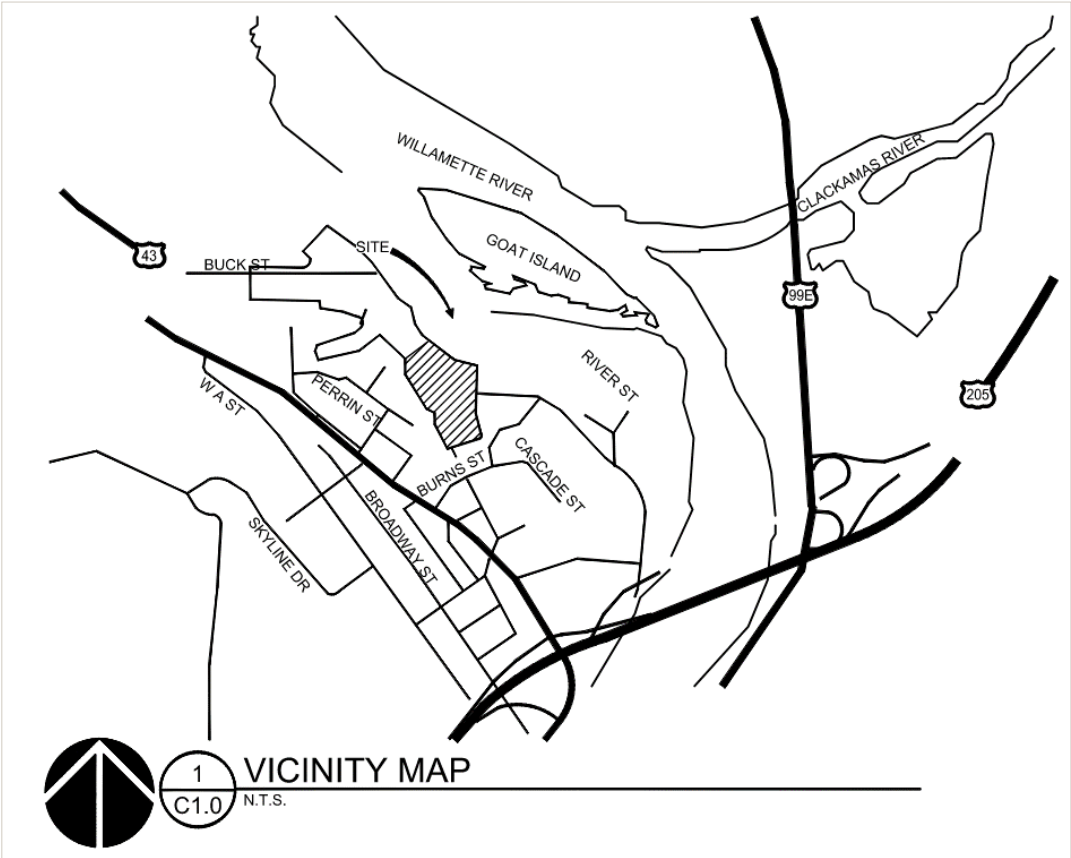

Figure 1: Vicinity Map

Proposed Improvements

The proposed improvements will consist of removing the existing gravel parking lot and replacing with a pervious paver type system at the same footprint and elevations as the existing gravel parking.

As such, the existing footprint and elevations will be maintained with a similar pervious product, and there should be no change to the existing storm system.

No impacts are proposed to wetlands or slide areas. Cut and fill will be balanced in the 100-year floodplain.

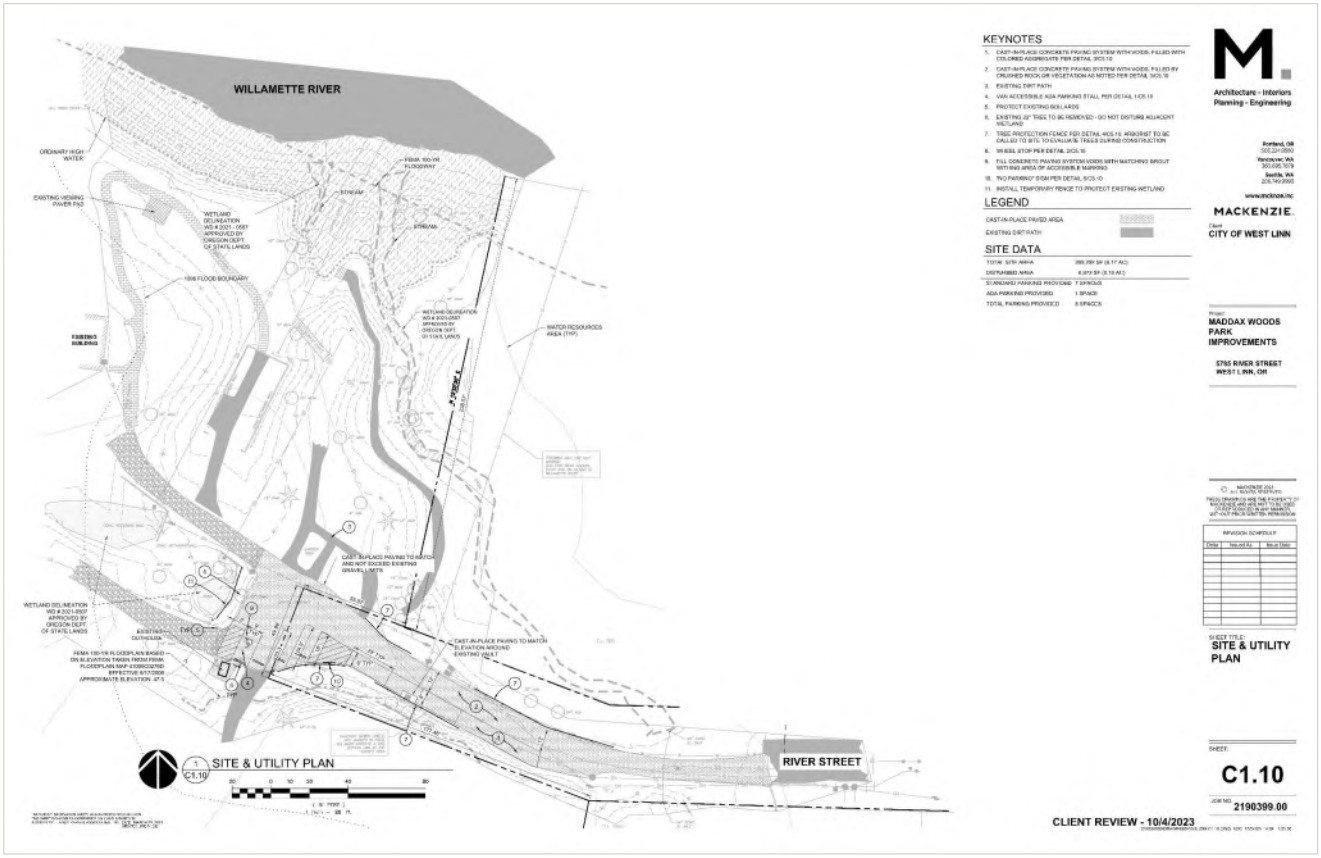

Figure 2: Site Plan

II. ENGINEERING CONCLUSIONS

No impervious area will be provided with the project. Per Section 2.0041 of the Public Works Design Standards, since the project does not create or replace impervious area by more than 1,000 SF[1], no detention or water quality will be required.

Therefore, the design for Maddax Woods Park adheres to the City of West Linn's design requirements.

[1] The 2020 Stormwater Master Plan states that the threshold in Section 2.0041 of the Public Works Design Standards is 500 SF, but the online version of the Public Works Design Standards specifies a 1,000 SF threshold. Neither threshold is exceeded in this case.

Exhibit O

CITY HALL 22500 Salamo Rd. West Linn Oregon 97068 telephone: (503) 657 0331 fax: (503) 650 9041

City of West Linn

January 9, 2023

Maddax Woods Park Improvements
Arborist Recommendations

Any trees that are 12 inches in diameter, (DBH), within the construction area of the paver and pathway project will need to be protected. The dripline area, (dripline +10 feet), will need to be fenced for protection. If this cannot be accomplished, and the root zones are disturbed, a permit for removal will be needed. A review of tree protection will occur onsite to ensure protection of all trees possible.

The tree by the old detention pond may have to be removed because of root disturbance in construction, for pavers. Further evaluation will occur during project.

The clump of three trees near the vault box, should be fenced off for root protection, if possible. Evaluation should be done during project to determine if root systems were disturbed and any further action required.

Ron Jones

Ron Jones, Park Program Manager
ISA Certified Arborist
503-722-4728

Maddax Woods Park

Class I Parks and Natural Area Design Review and Flood Management Area Permit

(PLACEHOLDER)

Exhibit P (Tualatin Valley Fire & Rescue Service Provider Permit) is in progress and will be submitted to the City when available