CITY OF West Linn

PLANNING MANAGER DECISION

DATE: February 4, 2022

FILE NO.: WRG-21-04/MISC-21-07

REQUEST: Request for a Flood Management Area (FMA) permit and Willamette and Tualatin River Protection (WRG) permit for a new private boat dock and access ramp at 5527 River Street.

PLANNER: John Floyd, Associate Planner

Planning Manager DSW

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EXHIBITS

GENERAL INFORMATION

OWNER/ APPLICANT:	Kevin Harper 5527 River Street West Linn, OR 97068
CONSULTANT:	Rick Givens Richard Givens Consulting 18680 Sunblaze Dr. Oregon City, OR 97045
SITE LOCATION:	5527 River Street
SITE SIZE:	Approximately 0.63 Acres (27,350 SF)
LEGAL DESCRIPTION:	Assessor Maps and Tax Lot – 22E30DB00700
COMP PLAN DESIGNATION:	Low Density Residential
ZONING:	R-10, Single-Family Residential Detached
APPROVAL CRITERIA:	Community Development Code (CDC) Chapters 11, 27, 28, 34, and 99
120-DAY RULE:	The application declared complete on October 19, 2021. The 120-day period ends on February 16, 2022.
PUBLIC NOTICE:	Notice was mailed to property owners within 500 feet of the subject property, to all Neighborhood Associations, and posted on the City's website on October 28, 2021. A sign was placed on the property on October 28, 2021. Therefore, public notice requirements of CDC Chapter 99 have been met.

EXECUTIVE SUMMARY

The proposed private boat dock. access ramp, and associated pilings will be located at Willamette River Mile 25.1 within the Willamette River Greenway boundary and the 100-year floodplain and floodway of the Willamette River; therefore, Flood Management Area (FMA) and Willamette and Tualatin Protection (WRG) permits are required. The property is zoned R-10 and located in the Bolton Neighborhood.

The aluminum floating dock will be 240 square feet with open grating atop floats, to be accessed by a 166-foot-long aluminum ramp. The dock and ramp will be anchored by five, twelve-inch piles. The applicant has provided an engineering report showing the design will withstand the hydrostatic and hydrodynamic loads resulting from the 100-year flood event and keep the dock and ramp secured to the river bank. No vegetation or tree removal is proposed.

The property also contains an existing stormwater conveyance pipe along the southern and eastern property line within a non-defined easement area applicable to the property.

The applicable CDC Chapters include:

- Chapter 11, Single-Family Residential Detached R-10
- Chapter 27, Flood Management Areas
- Chapter 28, Willamette and Tualatin River Protection

Public comments:

One public comment was received from “Alex” who did not provide a last name, a return address or other contact information, and just announced their interest as a Willamette River fisherman. The letter inquired about potentially unpermitted concrete work about five years ago and abandoned docks upstream of the project area. The application does not affect or alter the stairway in question and is not reliant upon it for operation or construction. Therefore, the matter would more appropriately be addressed through a code enforcement complaint. Abandoned docks would be more appropriately addressed through coordination with the Oregon Department of State Lands.

DECISION

The Planning Manager (designee) approves this application (WRG-21-04/MIS-21-07), based on: 1) the findings submitted by the applicant, which are incorporated by this reference, and 2) supplementary staff findings included in the Addendum below, and 3) the addition of conditions of approval (COA) below. With these findings, the applicable approval criteria are met. The conditions are as follows:

1. **The applicant shall adhere to the General Authorization Permit issued by the Oregon Department of State Lands (DSL) and shall submit a copy of the Joint Permit issued by the US Army Corps of Engineers (USACE) for the proposed dock.**
2. **The applicant shall submit a completed and signed FEMA Elevation Certificate showing no-rise in flood elevation from the dock and ramp installation.**
3. **With the exception of modifications required by these conditions, the installation of the dock and ramp shall conform to Plan Sheets found in Exhibit PD-1.**
4. **Prior to project completion, applicant shall record a 15 foot wide stormwater easement to the City of West Linn, centered on the existing storm drainage pipe shown in Exhibit PD-1.**

The provisions of the Community Development Code Chapter 99 have been met.

John Floyd, Associate Planner

February 4, 2022
DATE

Appeals to this decision must be filed with the West Linn Planning Department within 14 days of the mailing date listed below. The cost of an appeal is $400. The appeal must be filed by an individual who has established standing by submitting comments prior to the date identified in the public notice. Appeals will be heard by City Council.

February 4, 2022.

Therefore, the 14-day appeal period ends at 4 p.m., on February 18, 2022.

ADDENDUM
APPROVAL CRITERIA AND FINDINGS
WRG-21-04 MIS-21-07

Chapter 11
SINGLE-FAMILY RESIDENTIAL DETACHED, R-10
11.030 PERMITTED USES
The following are uses permitted outright in this zoning district
1. Single-family detached residential unit.
(...)

11.040 ACCESSORY USES
Accessory uses are allowed in this zone as provided by Chapter 34 CDC.

Staff Finding 1: The subject property contains an existing single-family home. The applicant proposes to place a boat dock and ramp (accessory use/structure) on the property per CDC Chapters 27, 28, and 34. The criteria are 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:
(...)
5. Except as specified in CDC 25.070(C)(1) through (4) for the Willamette Historic District, the minimum yard dimensions or minimum building setback area from the lot line shall be:
a. For the front yard, 20 feet; except for steeply sloped lots where the provisions of CDC 41.010 shall apply.
b. For an interior side yard, seven and one-half feet.
c. For a side yard abutting a street, 15 feet.
d. For a rear yard, 20 feet.
(...)

Staff Finding 2: The subject property contains an existing single-family home. The applicant proposes to place a boat dock and ramp (accessory use/structure) on the property. Setback requirements for boat houses and docks are regulated by Chapter 34. Please see Staff Finding 3. The criteria are met.

Chapter 34
ACCESSORY STRUCTURES, ACCESSORY DWELLING UNITS, AND ACCESSORY USES
34.020 ACCESSORY USES
Accessory uses are permitted uses which are customary and incidental to principal uses permitted in the zone and shall be permitted outright, or by prescribed conditions as identified below, and may be either attached or separated from the principal dwelling. (…)

34.050 BOAT HOUSES AND DOCKS
Only side yard setback requirements apply to boat houses and docks.

Staff Finding 3: The subject property is zoned R-10, which requires a 7.5 foot side yard setback. The applicant proposes the dock and anchoring system to be located approximately 19' and 52 feet from both side property lines (see page 18, Exhibit PD-1). The criteria are met.

CHAPTER 27, FLOOD MANAGEMENT AREAS
27.060 Approval Criteria
A. 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.
B. 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.
C. 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.

Staff Finding 4: The proposed dock is buoyant and floats on the surface of the river. The anchoring system consists of five steel piles, each 12 inches in diameter. The ramp is secured by a concrete footing. The applicant submitted certification by a professional civil engineer licensed to practice in the State of Oregon (see Exhibit PD-1) that the dock, ramp, and anchoring system will maintain flood storage and conveyance capacity and not increase design flood elevations. The applicant shall submit a completed and signed FEMA Elevation Certificate per Condition of Approval 2. Subject to the Conditions of Approval, the criteria are met.

D. 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.
E. Temporary fills permitted during construction shall be removed.

Staff Finding 5: The applicant is neither proposing any habitable structures in the flood area, nor any temporary fills during construction. The criteria are met.

F. Prohibit encroachments, including fill, new construction, substantial improvements, and other development in floodways unless certification by a professional civil engineer licensed to practice in the State of Oregon is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
G. All proposed improvements to the floodplain or floodway which might impact the flood-carrying capacity of the river shall be designed by a professional civil engineer licensed to practice in the State of Oregon.

Staff Finding 6: The proposed dock is buoyant and floats on the surface of the river. The anchoring system consists of five, twelve-inch piles and a concrete footing to anchor the ramp to shore. The ramp is secured by a concrete footing. The applicant submitted certification by a professional civil engineer licensed to practice in the State of Oregon (see pages 15 to 16, Exhibit PD-1) that the dock, ramp, and anchoring system will result in a negligible increase in flood levels during the occurrence of the base flood discharge. The applicant shall submit a completed and signed FEMA Elevation Certificate per Condition of Approval 2. Subject to the Conditions of Approval, the criteria are met.

H. 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.
I. 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.

Staff Finding 7: The applicant is proposing no new culverts, stream crossings, or transportation projects, nor the construction of detention facilities or structures. The criteria are met.

J. The applicant shall provide evidence that all necessary permits have been obtained from those federal, State, or local governmental agencies from which prior approval is required.

Staff Finding 8: The applicant has applied for and received a General Authorization Permit with the Oregon Department of State Lands (DSL), and has also filed a Joint Permit with the US Army Corps of Engineers (USACE) for the proposed dock. The applicant shall submit a copy of the joint permit from the USACE per condition 1. The applicant shall submit a completed and signed FEMA Elevation Certificate per Condition of Approval 2 (Staff Findings 4 and 6). Subject to the Conditions of Approval, the criteria are met.

27.070 Construction Materials and Methods
A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage using methods and practices that minimize flood damage.
B. Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
C. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
D. 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.

E. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Staff Finding 9: Staff adopts the applicant findings found in Exhibit PD-1. The criteria are met.

F. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

Staff Finding 10: The proposed dock is buoyant and floats on the surface of the river. The applicant has submitted a report prepared by Munzing Structural Engineering (pages 21 to 39, Exhibit PD-1) that analyzes the design of the steel piles. The design is to withstand the hydrodynamic and hydrostatic load resulting from the 100-year flood event and keep the dock and ramp secured to the river bank. The criteria are met.

27.090 NON-RESIDENTIAL CONSTRUCTION
New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall either have the lowest floor, including basement, elevated to at least one foot above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

A. Be flood-proofed so that below the base flood level the structure is watertight with walls impermeable to the passage of water;

Staff Finding 11: The applicant is not proposing a structure with walls, but a dock that is buoyant and floats on the surface of the river. The criteria are met.

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

Staff Finding 12: The proposed dock is buoyant and floats on the surface of the river. The applicant has submitted a report prepared by Munzing Structural Engineering (Exhibit PD-1) that analyzes the design of the steel piles. The design is to withstand the hydrostatic and hydrodynamic loads resulting from the 100-year flood event and keep the dock and ramp secured to the river bank. The criteria are met.

C. Be certified by a professional civil engineer licensed to practice in the State of Oregon that the design and methods of construction shall prevent seepage, collapse or cracking of basement walls, prevent buckling of basement floors, prevent backup of water from sewer lines, and have all openings located one foot above the base flood elevation. In addition, all protective features must operate automatically without human intervention;
D. Non-residential construction that is elevated, but not flood-proofed (i.e., the foundation is not at least one foot above the 100-year flood elevation) shall also comply with the standards set forth in CDC 27.080. (Ord. 1522, 2005)

Staff Finding 13: The applicant is not proposing an enclosed structure with a basement, walls, or sanitary sewer service, but a dock that is buoyant and floats on the surface of the river. The applicant has submitted a report prepared by Munzing Structural Engineering (Exhibit PD-1) that analyzes the design of the anchoring system. The design is to withstand the hydrostatic and hydrodynamic loads resulting from the 100-year flood event and keep the dock and ramp secured to the river bank. The criteria are met.

Chapter 28
WILLAMETTE AND TUALATIN RIVER PROTECTION
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.)
(...)
CC. A new dock subject to the approval criteria of this chapter.

Staff Finding 14: The applicant proposes a new dock and ramp. Staff Findings 15 to 43 address the approval criteria of this chapter.

28.110 APPROVAL CRITERIA
No application for development on property within the protection area shall be approved unless the decision-making authority finds that the following standards have been met or can be met by conditions of approval. The development shall comply with the following criteria as applicable:
A. Development: All sites.
1. Sites shall first be reviewed using the HCA Map to determine if the site is buildable or what portion of the site is buildable. HCAs shall be verified by the Planning Director per CDC 28.070 and site visit. Also, "tree canopy only" HCAs shall not constitute a development limitation and may be exempted per CDC 28.070(A). The municipal code protection for trees and Chapters 55 and 85 CDC tree protection shall still apply.

Staff Finding 15: The Planning Director has verified the presence of High Value HCA along the river bank of the subject property. The site is buildable per Staff Finding 16. The criteria are met.

2. HCAs shall be avoided to the greatest degree possible and development activity shall instead be directed to the areas designated "Habitat and Impact Areas Not Designated as HCAs," consistent with subsection (A) (3) of this section.
3. If the subject property contains no lands designated "Habitat and Impact Areas Not Designated as HCAs" and development within HCA land is the only option it shall be directed towards the low HCA areas first, then medium HCA areas and then to high HCA as the last choice. The goal is to, at best, avoid or, at least, minimize disturbance of the HCAs. (Water-dependent uses are exempt from this provision.)

Staff Finding 16: The Planning Director has verified the presence of High Value HCA along the river bank of the subject property. However, the proposal is for a dock and ramp, which is a water-dependent use and exempt from avoiding HCAs. Construction will occur from the river surface via barge and crane resulting in minimal bank disturbance. The criteria is met.

4. All development, including exempted activities of CDC 28.040, shall have approved erosion control measures per Clackamas County Erosion Prevention and Sediment Control Planning and Design Manual, rev. 2008, in place prior to site disturbance and be subject to the requirements of CDC 32.070 and 32.080 as deemed applicable by the Planning Director.

Staff Finding 17: The Planning Director has determined appropriate erosion control measures will be put in place as part of the development process. Subject to the Conditions of Approval, the criteria are met.

B. Single-family or attached residential
C. Setbacks from top of bank.
D. Development of lands designated for industrial, commercial, office, public and other non-residential uses.
E. Hardship provisions and non-conforming structures.

Staff Finding 18: The proposal is not for a residential structure, nor on industrial, commercial, office, public, or other non-residential land. The proposal is exempt from avoiding HCAs per Staff Finding 16. The applicant is not requesting a hardship nor alteration of a non-conforming structure. Only side-yard setbacks apply per Staff Finding 3. The criteria are met.

F. Access and property rights.
1. Private lands within the protection area shall be recognized and respected.
2. Where a legal public access to the river or elsewhere in the protection area exists, that legal public right shall be recognized and respected.
3. To construct a water-dependent structure such as a dock, ramp, or gangway shall require that all pre-existing legal public access or similar legal rights in the protection area be recognized and respected. Where pre-existing legal public access, such as below the OLW, is to be obstructed by, for example, a ramp, the applicant shall provide a reasonable alternate route around, over or under the obstruction. The alternate route shall be as direct as possible. The proposed route, to include appropriate height clearances under ramps/docks and specifications for safe passage over or around ramps and docks, shall be reviewed and approved by the Planning Director for adequacy.

Staff Finding 19: Staff adopts the applicant findings found in Exhibit PD-1. There are no other private lands within the area of the dock project. The access ramp will be elevated 15 to 20 feet above the shoreline and does not infringe on public access rights in this area. The criteria are met.

4. Any public or private water-dependent use or facility shall be within established DSL-authorized areas.

Staff Finding 20: The applicant has applied for and received a General Authorization Permit with the Oregon Department of State Lands (DSL), and has also filed a Joint Permit with the US Army Corps of Engineers (USACE) for the proposed dock. The applicant shall submit a copy of the joint permit from the USACE per condition 1. Subject to the Conditions of Approval, the criteria are met.

G. Incentives to encourage access in industrial, multi-family, mixed-use, commercial, office, public and non-single-family residential zoned areas.
H. Partitions, subdivisions, and incentives.

Staff Finding 21: The proposed dock is located in a single-family residential zone and no partition or subdivision is proposed. The criteria do not apply.

I. Docks and other water-dependent structures.
1. Once the preference rights area is established by DSL, the property owner identifies where the water-dependent use will be located within the authorized portion of the preference rights area. The water-dependent use should be centered or in the middle of the preference rights/authorized area or meet the side yard setbacks of the underlying zone.
Private and public non-commercial docks are permitted where dredging is required so long as all applicable federal and State permits are obtained. Dredging is encouraged if deposits silt up under an existing dock. Dredging is seen as preferable to the construction of longer docks/ramps.

Staff Finding 22: The applicant has applied for and received a General Authorization Permit with the Oregon Department of State Lands (DSL), and has also filed a Joint Permit with the US Army Corps of Engineers (USACE) for the proposed dock. The applicant shall submit a copy of the joint permit from the USACE per condition 1. The applicant has proposed the dock to be centered in the DSL preference rights request and meets the 7.5 foot side yard setback requirements for the R-10 zone (see Staff Finding 3). No dredging is proposed. Subject to the Conditions of Approval, the criteria are met.

2. Both joint and single use docks shall not extend into the water any further than necessary to provide four feet between the ship's keel or fixed propeller/rudder and the bottom of the water at any time during the water's lowest point.

Staff Finding 23: This criteria has been found to be in conflict with National Oceanic and Atmospheric Administration-National Marine Fisheries Service Standard Local Operating Procedures for Endangered Species (SLOPES IV), which requires a minimum depth of 15 feet for over-water structures (docks). The City determined that these federal standards govern this project and pre-empt this specific criteria. The applicant shows a depth of 15 feet from dock to river bed. The criteria are met.

3. In no case except as provided in this section shall a private ramp and private dock extend more than 100 feet from OLW towards the center of the river or slough. In the case of L-shaped docks, the 100 feet shall be measured from the OLW to the furthest part of the private dock closest to the center of the river.

Staff Finding 24: The combined length of the ramp and dock would extend approximately 95 feet from ordinary low water. This criteria is met.

4. Docks on sloughs and similar channels shall not extend more than 30 percent of the distance between two land masses at OHW, such as between the mainland and an island or peninsula, measured in a lineal manner at right angle to the dominant shoreline. In no way shall a dock impede existing public usage or block navigation of a channel.

Staff Finding 25: The dock is not located on a slough or similar channel, but is located in the main channel of the Willamette River. The dock is 95 feet from the OLWM, while the river is approximately 446 feet wide at OLWM. The dock will not impede public usage or block the navigation of the Willamette River. The criteria are met.

5. Boat storage associated with a rail launch facility shall be located above the OHW, either vertically raised above the ordinary high water line or set back behind the OHW. Such boat storage structure will be natural wood colors or similar earth tones. Private railed launch facilities are permitted for individual boat owners. The onshore setback of the storage structure is equal distance on both sides as extended perpendicular to the thread of the stream, or seven and one-half feet, whichever is the greater setback.

Staff Finding 26: No rail launch structure is proposed. The criteria does not apply.

6. The width of each deck section shall be no more than 12 feet wide.

Staff Finding 27: The deck sections measure six-feet in width. The criteria are met.

7. For only single-user and joint-user docks, pilings shall not exceed a maximum height of eight feet above the 100-year flood elevation.

Staff Finding 28: The proposed pilings will be approximately 50 feet in elevation, and the 100 year flood elevation in this section of the Willamette River is approximately 48.2 feet. The criteria is met.

8. A single user non-commercial dock shall not exceed 400 square feet in deck area. The boat slip is not included in the calculation of this square footage limitation.

Staff Finding 29: The proposed dock is L-shaped and has an area of 396 square feet. The criteria is met.

9. Private non-commercial boat houses are allowed...The above provisions also apply to open-walled boat shelters with or without boatlifts.

Staff Finding 30: The applicant does not propose a boat house, nor an open walled boat shelter. The criteria do not apply.

J. Joint docks.
K. Non-conforming docks and other water-related structures.

Staff Finding 31: The applicant is not proposing a non-conforming dock, nor other water-related structure. The criteria do not apply.

L. Roads, driveways, utilities, or passive use recreation facilities. Roads, driveways, utilities, public paths, or passive use recreation facilities may be built in those portions of HCAs that include wetlands, riparian areas, and water resource areas when no other practical alternative exists but shall use water-permeable materials unless City engineering standards do not allow that. (…)

Staff Finding 32: The applicant is not proposing any roads, driveways, or passive use recreation facilities. Boat docks are exempt from avoiding HCAs per Staff Finding 16. The criteria do not apply.

M. Structures. All buildings and structures in HCAs and riparian areas, including all exterior mechanical equipment, should be screened, colored, or surfaced so as to blend with the riparian environment. Surfaces shall be non-polished/reflective or at least expected to lose their luster within a year. In addition to the specific standards and criteria applicable to water-dependent uses (docks), all other provisions of this chapter shall apply to water dependent uses, and any structure shall be no larger than necessary to accommodate the use.

Staff Finding 33: The proposed dock and ramp are water dependent structures and cannot be screened from the river, but are the minimum size for the proposed use. Surfaces and materials will be non-polished aluminum. The criteria are met.

N. Water-permeable materials for hardscapes.
O. Signs and graphics.
P. Lighting.
Q. Parking.

Staff Finding 34: Staff incorporates applicant findings (Exhibit PD-1)

R. Views. Significant views of the Willamette and Tualatin Rivers shall be protected as much as possible as seen from the following public viewpoints: Mary S. Young Park, Willamette Park, *Cedar Oak Park, Burnside Park, Maddox Park, Cedar Island, the Oregon City Bridge, Willamette Park, and Fields Bridge Park.*

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

Staff Finding 35: The dock will not be visible from any of the view points listed above in West Linn. The nearest location is the Oregon City Bridge, approximately 2,735 feet to the south, with direct sight obscured by the presence of the Abernathy Bridge and vegetation within West Bridge Park and Mclean House Park. The criteria is met.

S. Aggregate deposits. Extraction of aggregate deposits or dredging shall be conducted in a manner designed to minimize adverse effects on water quality, fish and wildlife, vegetation, bank stabilization, stream flow, visual quality, noise and safety, and to promote necessary reclamation.

Staff Finding 36: Staff incorporates applicant findings (Exhibit PD-1). This criteria is met.

T. Changing the landscape/grading.
1. Existing predominant topographical features of the bank line and escarpment shall be preserved and maintained except for disturbance necessary for the construction or establishment of a water related or water dependent use. Measures necessary to reduce potential bank and escarpment erosion, landslides, or flood hazard conditions shall also be taken.

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

Staff Finding 37: The applicant does not propose any changes in topography or vegetation. No stabilization of the bank is proposed. The criteria are met.

2. The applicant shall establish to the satisfaction of the approval authority that steps have been taken to minimize the impact of the proposal on the riparian environment (areas between the top of the bank and the low water mark of the river including lower terrace, beach and river edge).

Staff Finding 38: The applicant has established to the satisfaction of the Planning Manager that steps have been taken to minimize impacts to the riparian environment. Per Condition of Approval 3, the installation of the dock and ramp shall conform to Plan Sheets found in Exhibit PD-1. Subject to the Conditions of Approval, the criteria are met.

3. The applicant shall demonstrate that stabilization measures shall not cause subsequent erosion or deposits on upstream or downstream properties.

Staff Finding 39: The applicant does not propose any stabilization measures. The criteria is met.

4. Prior to any grading or development, that portion of the HCA that includes wetlands, creeks, riparian areas and water resource area shall be protected with an anchored chain link fence (or approved equivalent) at its perimeter and shall remain undisturbed except as specifically allowed by an approved Willamette and Tualatin River Protection and/or water resource area (WRA) permit. Such fencing shall be maintained until construction is complete. That portion of the HCA that includes wetlands, creeks, riparian areas and water resource area shall be identified with City-approved permanent markers at all boundary direction changes and at 30- to 50-foot intervals that clearly delineate the extent of the protected area.
5. Full erosion control measures shall be in place and approved by the City Engineer prior to any grading, development or site clearing.

Staff Finding 40: The applicant does not propose any grading or site clearing. Docks are exempt from avoiding HCAs per Staff Finding 16. The criteria are met.

U. Protect riparian and adjacent vegetation. Vegetative ground cover and trees upon the site shall be preserved, conserved, and maintained according to the following provisions:
1. Riparian vegetation below OHW removed during development shall be replaced with indigenous vegetation, which shall be compatible with and enhance the riparian environment and approved by the approval authority as part of the application.

Staff Finding 41: The applicant does not propose any disturbance of riparian vegetation below the OHW. Docks are exempt from avoiding HCAs per Staff Finding 16. The criteria are met.

2. Vegetative improvements to areas within the protection area may be required if the site is found to be in an unhealthy or disturbed state by the City Arborist or his or her designated expert. “Unhealthy or disturbed” includes those sites that have a combination of native trees, shrubs, and groundcover on less than 80 percent of the water resource area and less than 50 percent tree canopy coverage in the primary and secondary habitat conservation area to be preserved. “Vegetative improvements” will be documented by submitting a revegetation plan meeting CDC 28.160 criteria that will result in the primary and secondary habitat conservation area to be preserved having a combination of native trees, shrubs, and groundcover on more than 80 percent of its area, and more than 50 percent tree canopy coverage in its area. The vegetative improvements shall be guaranteed for survival for a minimum of two years. Once approved, the applicant is responsible for implementing the plan prior to final inspection.

Staff Finding 42: The ramp and dock will be anchored by pilings and a concrete footing with minimal disturbance. Docks are exempt from avoiding HCAs per Staff Finding 16. The criteria are met.

3. Tree cutting shall be prohibited in the protection area except that:

a. Diseased trees or trees in danger of falling may be removed with the City Arborist's approval; and

b. Tree cutting may be permitted in conjunction with those uses listed in CDC 28.030 with City Arborist approval; to the extent necessary to accommodate the listed uses;

c. Selective cutting in accordance with the Oregon Forest Practices Act, if applicable, shall be permitted with City Arborist approval within the area between the OHW and the greenway boundary provided the natural scenic qualities of the greenway are maintained.

Staff Finding 43: The applicant does not propose the removal of any trees. Docks are exempt from avoiding HCAs per Staff Finding 16. The criteria are met.

EXHIBIT PD-1: APPLICANT SUBMITTAL

CITY OF West Linn

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

DEVELOPMENT REVIEW APPLICATION

For Office Use Only		
STAFF CONTACT	PROJECT NO(S).	PRE-APPLICATION NO.
NON-REFUNDABLE FEE(S)	REFUNDABLE DEPOSIT(S)	TOTAL

Type of Review (Please check all that apply):

☐ Annexation (ANX)
☐ Appeal and Review (AP)
☐ Conditional Use (CUP)
☐ Design Review (DR)
☐ Easement Vacation
☐ Extraterritorial Ext. of Utilities
☐ Final Plat or Plan (FP)
☒ Flood Management Area
☐ Hillside Protection & Erosion Control
☐ Historic Review
☐ Legislative Plan or Change
☐ Lot Line Adjustment (LLA)
☐ Minor Partition (MIP) (Preliminary Plat or Plan)
☐ Non-Conforming Lots, Uses & Structures
☐ Planned Unit Development (PUD)
☐ Pre-Application Conference (PA)
☐ Street Vacation
☐ Subdivision (SUB)
☐ Temporary Uses
☐ Time Extension
☐ Variance (VAR)
☐ Water Resource Area Protection/Single Lot (WAP)
☐ Water Resource Area Protection/Wetland (WAP)
☒ Willamette & Tualatin River Greenway (WRG)
☐ Zone Change

Home Occupation, Pre-Application, Sidewalk Use, Sign Review Permit, and Temporary Sign Permit applications require different or additional application forms, available on the City website or at City Hall.

Site Location/Address: 5527 River Street

Assessor's Map No.: 22E30DB
Tax Lot(s): 700
Total Land Area: 0.62 Acre

Brief Description of Proposal:

Willamette River Greenway and Flood Management Area permits to authorize a private boat dock.

Applicant Name: (please print) Kevin Harper
Address: 5527 River Street
City State Zip: West Linn, OR 97068
Phone: (503) 274-8133
Email: kevinharper@comcast.net

Owner Name (required): (please print) Same as applicant.
Address:
City State Zip:
Phone:
Email:

Consultant Name: (please print) Rick Givens
Address: 18680 Sunblaze Dr.
City State Zip: Oregon City, OR 97045
Phone: (503) 351-8204
Email: rickgivens@gmail.com

1. All application fees are non-refundable (excluding deposit). **Any overruns to deposit will result in additional billing.**
2. The owner/applicant or their representative should be present at all public hearings.
3. A decision may be reversed on appeal. The permit approval will not be effective until the appeal period has expired.
4. The City accepts electronic (.pdf) land use applications and project submissions from applicants. Applicants should submit this form and supporting documents through the Submit a Land Use Application web page: https://westlinnoregon.gov/planning/submit-land-use-application

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

Kevin S Harper	5/3/21	Kevin S Harper	5/3/21
Applicant's signature	Date	Owner's signature ***(required)***	Date

FMA and WRG Permit Application for

A Boat Dock and Access Ramp

5527 River Street, West Linn, OR

Project Description:

This project proposes the construction of a dock and access ramp on the Willamette River adjacent to 5527 River Street. The project involves the placement of 5 piling, 3 for the dock and 2 for the access ramp. Approval of the proposed seasonal dock requires City of West Linn Flood Management Area (FMA) and Willamette River Greenway (WRG) permits.

27.020 APPLICABILITY

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

Comment: The proposed dock and access ramp are located within the Flood Management Area Overlay Zone so the standards of this chapter apply.

27.060 APPROVAL CRITERIA

The Planning Director shall make written findings with respect to the following criteria when approving, approving with conditions, or denying an application for development in flood management areas:

A. 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.

Comment: The dock and ramp are both floating structures and will have no measurable impact upon flood storage.

B. 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.

Comment: No fill is proposed to occur on the property.

C. 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.*

Comment: No excavation is needed because there will be no fill.

D. 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.

Comment: Not applicable. No structures with finished floors are proposed.

E. Temporary fills permitted during construction shall be removed.

Comment: No temporary fills are proposed.

F. Prohibit encroachments, including fill, new construction, substantial improvements, and other development in floodways unless certification by a professional civil engineer licensed to practice in the State of Oregon is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

Comment: No fill or encroachments are proposed within the floodway.

G. All proposed improvements to the floodplain or floodway which might impact the flood-carrying capacity of the river shall be designed by a professional civil engineer licensed to practice in the State of Oregon.

Comment: The dock and ramp are designed to float and will have no measurable impact upon the flood-carrying capacity of the river.

H 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.

Comment: Not applicable. No new culverts, stream crossings or transportation projects are proposed.

I. 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.

Comment: Not applicable. No detention facilities or structures are proposed.

J. The applicant shall provide evidence that all necessary permits have been obtained from those federal, State, or local governmental agencies from which prior approval is required. (Ord. 1522, 2005; Ord. 1635 § 15, 2014; Ord. 1636 § 25, 2014)

Comment: Applications to DSL and the Corps of Engineers are pending approval. Copies of approvals will be provided to the City prior to commencement of construction.

27.070 CONSTRUCTION MATERIALS AND METHODS

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

Comment: The dock materials are metal and floats that are designed for water-related use. These materials are resistant to flood damage. The dock is and access ramp are designed to float and the piling are taller than the base flood elevation.

B. Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

Comment: No electrical, heating, ventilation, plumbing or air conditioning equipment are proposed for the dock or access ramp.

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

Comment: No water service is proposed for the dock or access ramp. No change to the existing home's water service is proposed.

D. 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.

Comment: No sewer service is proposed for the dock or access ramp. No change to the existing home's sewer service is proposed.

E. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Comment: No on-site waste disposal system is proposed.

F. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

Comment: The dock and the access ramp will be secured with piling driven into the river bed to secure the dock and access ramp during flood events. A concrete footing with a guide pipe will secure the upper end of the access ramp.

27.090 NON-RESIDENTIAL CONSTRUCTION

New construction and substantial improvement of any commercial, industrial, or other non-residential structure shall either have the lowest floor, including basement, elevated to at least one foot above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

A. Be flood-proofed so that below the base flood level the structure is watertight with walls impermeable to the passage of water;

Comment: The dock is floating and will ride with the water level. There is no fixed structure that would have a lowest floor or basement.

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

Comment: The dock and ramps are designed to float and will be anchored in place with steel piling capable of resisting hydrostatic and hydrodynamic effects during flood events.

C. Be certified by a professional civil engineer licensed to practice in the State of Oregon that the design and methods of construction shall prevent seepage, collapse or cracking of basement walls, prevent buckling of basement floors, prevent backup of water from sewer lines, and have all openings located one foot above the base flood elevation. In addition, all protective features must operate automatically without human intervention;

Comment: Not applicable. The dock does not include walls, basement floors, water or sewer lines.

D. Non-residential construction that is elevated, but not flood-proofed (i.e., the foundation is not at least one foot above the 100-year flood elevation) shall also comply with the standards set forth in CDC 27.080. (Ord. 1522, 2005)

Comment: Not applicable. There is no foundation or fixed floor level. The dock and ramp will float and will rise with the water level.

28.030 APPLICABILITY

A. The Willamette and Tualatin River Protection Area is an overlay zone. The zone boundaries are identified on the City's zoning map, and include:

1. All land within the City of West Linn's Willamette River Greenway Area.

2. All land within 200 feet of the ordinary low water mark of the Tualatin River, and all land within the 100-year floodplain of the Tualatin River.

3. In addition to the Willamette Greenway and Tualatin River Protection Area boundaries, this chapter also relies on the HCA Map to delineate where development should or should not occur. Specifically, the intent is to keep out of, or minimize disturbance of, the habitat conservation areas (HCAs). Therefore, if all, or any part, of a lot or parcel is in the Willamette Greenway and Tualatin River Protection Area boundaries, and there are HCAs on the lot or parcel, a Willamette and Tualatin River Protection Area permit shall be required unless the development proposal is exempt per CDC 28.040.

B. At the confluence of a stream or creek with either the Tualatin or Willamette River, the standards of this chapter shall apply only to those portions of the lot or parcel fronting the river. Meanwhile, development in those portions of the property facing or adjacent to the stream or creek shall meet the transition, setbacks and other provisions of Chapter 32 CDC, Water Resource Area Protection.

C. All uses permitted under the provisions of the underlying base zone and within the Willamette and Tualatin River Protection Area zone are allowed in the manner prescribed by the base zone subject to applying for and obtaining a permit issued under the provisions of this chapter unless specifically exempted per CDC 28.040.

D. The construction of a structure in the HCA or the expansion of a structure into the HCA when the new intrusion is closer to the protected water feature than the pre-existing structure. (Ord. 1576, 2008; Ord. 1604 § 21, 2011; Ord. 1636 § 26, 2014)

Comment: The subject property is within the 100 year flood plain of the Willamette River and, therefore, is subject to the provisions of this chapter.

28.050 PROHIBITED USES

Comment: The proposed dock is not a prohibited use.

28.090 SUBMITTAL REQUIREMENTS: APPLICATION

A. An application for a protection area permit shall be initiated by the property owner or the owner's authorized agent. Evidence shall be provided to demonstrate that the applicant has the legal right to use the land above the OLW. The property owner's signature is required on the application form.

Comment: The applicant has filed for a Joint Permit with the US Army Corps of Engineers and a General Authorization Permit from the Oregon Department of State Lands for the proposed dock. This application is pending review at this time.

B. A prerequisite to the filing of an application is a pre-application conference at which time the Planning Director shall explain the provisions of this chapter and provide appropriate forms as set forth in CDC 99.030(B).

Comment: A pre-application conference for the proposed use was held last year (PA-20-13).

C. An application for a protection area permit shall include the completed application and:

1. *Narrative which addresses the approval criteria of CDC 28.110.*
2. *A site plan, with HCA boundaries shown and by low, moderate, high type shown (CDC 28.120).*
3. *A grading plan if applicable (CDC 28.130).*
4. *Architectural drawings if applicable (CDC 28.140).*
5. *A landscape plan if applicable (CDC 28.150).*
6. *A mitigation plan if applicable (CDC 28.160).*

Comment: This narrative addresses the criterial of CDC 28.110. A site plan is attached and shows HCA boundaries. No site grading is proposed. No architectural drawings or landscape plan are required.

D. The applicant shall pay the requisite fees.

Comment: The required fees have been paid.

E. The applicant shall be responsible for, and shall apply for, all applicable State and/or federal permits.

Comment: The DSL and Corps of Engineer permits have been filed and are in process of being reviewed.

F. The applicant shall include a map, approved or acknowledged by DSL, of the preference rights and authorized areas if a water surface structure is proposed. (Ord. 1576, 2008; Ord. 1622 § 11, 2014)

Comment: The applicant will provide a copy of the DSL approval once it is obtained.

28.110 APPROVAL CRITERIA

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

A. Development: All sites.

1. Sites shall first be reviewed using the HCA Map to determine if the site is buildable or what portion of the site is buildable. HCAs shall be verified by the Planning Director per CDC 28.070 and site visit. Also, "tree canopy only" HCAs shall not constitute a development limitation and may be exempted per CDC 28.070(A). The municipal code protection for trees and Chapters 55 and 85 CDC tree protection shall still apply.

Comment: The HCA is shaded in red on the map below. Only a small concrete pad will be permanently installed within the HCA. No structures are proposed within the HCA.

The aerial photograph of the site shown below demonstrates that the HCA is largely disturbed by landscaping and clearing associated with the home site on the property and provides little in the way of habitat resources.

2. HCAs shall be avoided to the greatest degree possible and development activity shall instead be directed to the areas designated "Habitat and Impact Areas Not Designated as HCAs," consistent with subsection (A)(3) of this section.

Comment: The disturbance of the HCA will be minimal, involving only the pouring of one small concrete pad on the shore. The dock and access ramp will be installed from the river surface via barge and crane meaning there will be minimal disturbance of the bank.

3. If the subject property contains no lands designated "Habitat and Impact Areas Not Designated as HCAs" and development within HCA land is the only option it shall be directed towards the low HCA areas first, then medium HCA areas and then to high HCA as the last choice. The goal is to, at best, avoid or, at least, minimize disturbance of the HCAs. (Water-dependent uses are exempt from this provision.)

Comment: The placement of the concrete anchor pad and the access ramp within the HCA is the only viable means of providing access to the proposed dock.

4. All development, including exempted activities of CDC 28.040, shall have approved erosion control measures per Clackamas County Erosion Prevention and Sediment Control Planning and Design Manual, rev. 2008, in place prior to site disturbance and be subject to the requirements of CDC 32.070 and 32.080 as deemed applicable by the Planning Director.

Comment: Because of the means of placement of the access ramp and dock, there will be no disturbance of site vegetation that might otherwise require erosion control measures.

F. Access and property rights.

1. Private lands within the protection area shall be recognized and respected.

Comment: Not applicable. There are no other private lands within the area of the dock project.

2. Where a legal public access to the river or elsewhere in the protection area exists, that legal public right shall be recognized and respected.

Comment: There is no existing legal public access in the vicinity of the dock project other than the right of use of the shoreline below the Ordinary Low Water line. As shown on the cross-section drawing, the access ramp will be elevated 15 to 20 feet above the shore line in this area and, thus does not infringe on public access rights in this area.

3. To construct a water-dependent structure such as a dock, ramp, or gangway shall require that all pre-existing legal public access or similar legal rights in the protection area be recognized and respected. Where pre-existing legal public access, such as below the OLW, is to be obstructed by, for example, a ramp, the applicant shall provide a reasonable alternate route around, over or under the obstruction. The alternate route shall be as direct as possible. The proposed route, to include appropriate height clearances under ramps/docks and specifications for safe passage over or around ramps and docks, shall be reviewed and approved by the Planning Director for adequacy.

Comment: As discussed above, the only pre-existing public access rights is to the use of the shoreline below the OLW line. The access ramp passes over the shoreline, but is elevated 15 to 20 feet above the river bank in this area and therefore imposes no limitation on public access below the OLW.

4. Any public or private water-dependent use or facility shall be within established DSL-authorized areas.

Comment: Permits are pending approval at DSL. A lease for use of the river for dock purposes will be obtained prior to construction.

5. Legal access to, and along, the riverfront in single-family residential zoned areas shall be encouraged and pursued especially when there are reasonable expectations that a continuous trail system can be facilitated. The City recognizes the potential need for compensation where nexus and proportionality tests are not met. Fee simple ownership by the City shall be preferred. The trail should be dimensioned and designed appropriate to the terrain it traverses and the user group(s) it can reasonably expect to attract. The City shall be responsible for signing the trail and delineating the boundary between private and public lands or access easements.

Comment: Access to the proposed dock will be from the access ramp placed on the subject property. No public access to the dock or access ramp is proposed. There are no existing rights for public access from the subject property to the river. The right of the public to use the river bank below OLW is not obstructed due to the access ramp being elevated 15 to 20 feet above the bank.

I. *<u>Docks and other water-dependent structures</u>.*

1. Once the preference rights area is established by DSL, the property owner identifies where the water-dependent use will be located within the authorized portion of the preference rights area. The water-dependent use should be centered or in the middle of the preference rights/authorized area or meet the side yard setbacks of the underlying zone.

Private and public non-commercial docks are permitted where dredging is required so long as all applicable federal and State permits are obtained. Dredging is encouraged if deposits silt up under an existing dock. Dredging is seen as preferable to the construction of longer docks/ramps.

Comment: The proposed dock is centered in the area that has been requested for approval by DSL. Documentation of DSL approval will be provided to the City prior to placement of the dock.

2. Both joint and single use docks shall not extend into the water any further than necessary to provide four feet between the ship's keel or fixed propeller/rudder and the bottom of the water at any time during the water's lowest point.

Comment: The City has determined in file No. WRG-15-06/MIS-15-13 that Federal requirements to place docks in deeper water in order to protect fish habitat supersede this provision of the Community Development Code.

3. In no case except as provided in this section shall a private ramp and private dock extend more than 100 feet from OLW towards the center of the river or slough. In the case of L-shaped docks, the 100 feet shall be measured from the OLW to the furthest part of the private dock closest to the center of the river.

Comment: As shown on the site plan, the proposed dock would extend approximately 95 feet from OLW. The dock needs to be placed that far from the bank due to the shallow water closer to shore.

4. Docks on sloughs and similar channels shall not extend more than 30 percent of the distance between two land masses at OHW, such as between the mainland and an island or peninsula, measured in a lineal manner at right angle to the dominant shoreline. In no way shall a dock impede existing public usage or block navigation of a channel.

Comment: Not applicable. The site is not on a slough or similar channel.

5. Boat storage associated with a rail launch facility shall be located above the OHW, either vertically raised above the ordinary high water line or set back behind the OHW. Such boat storage structure will be natural wood colors or similar earth tones. Private railed launch *facilities are permitted for individual boat owners. The onshore setback of the storage structure is equal distance on both sides as extended perpendicular to the thread of the stream, or seven and one-half feet, whichever is the greater setback.*

Comment: Not applicable. No rail launch facility is proposed.

6. The width of each deck section shall be no more than 12 feet wide.

Comment: As shown on the dock plan submitted with this application, the proposed dock complies with this requirement.

7. For only single-user and joint-user docks, pilings shall not exceed a maximum height of eight feet above the 100-year flood elevation.

Comment: The proposed piling will comply with this requirement, as shown on the cross-section drawing submitted with this application. The 100-year flood elevation at this point along the river is approximately 48.2' NAVD 88. The proposed height of the pilings is 50 feet (1.8' above the base flood elevation).

8. A single user non-commercial dock shall not exceed 400 square feet in deck area. The boat slip is not included in the calculation of this square footage limitation.

Comment: The proposed dock is approximately 396 sq. ft. in deck area.

9. Private non-commercial boat houses are allowed but only if they are within 50 feet of OLW and/or in locations sufficiently screened from view so that they do not have a significant visual impact on views from adjacent and nearby homes. Building and roof colors shall be brown, gray, beige, natural or similar earth tones. Non-commercial boat houses shall not exceed 12 feet in height measured from the boat house deck level to the roof peak. The size of the boat house shall be sized to accommodate one boat only and shall not exceed a footprint greater than 500 square feet. Boatlifts are permitted within the boat house. The above provisions also apply to open-walled boat shelters with or without boatlifts.

Comment: Not applicable. No boat house is proposed in conjunction with the dock.

J. <u>Joint docks</u>.

Comment: Not applicable. No joint use of the dock is proposed.

K. <u>Non-conforming docks and other water-related structures</u>. Pre-existing non-conforming structures, including docks, ramps, boat houses, etc., as defined in this chapter may remain in place. Replacement in kind (e.g., replacement of decking and other materials) will be allowed provided the replacement meets the standards of this chapter. However, if any non-conforming structure that is damaged and destroyed or otherwise to be replaced to the extent that the rebuilding or replacing (including replacement in kind) would exceed 50 percent of the current replacement cost of the entire structure, the owner shall be required to meet all the standards of this chapter.

Comment: Not applicable. There are no non-conforming docks or other water-related structures on the property or the adjoining river area.

L. <u>Roads, driveways, utilities, or passive use recreation facilities</u>. Roads, driveways, utilities, public paths, or passive use recreation facilities may be built in those portions of HCAs that include wetlands, riparian areas, and water resource areas when no other practical alternative exists but shall use water-permeable materials unless City engineering standards do not allow that. Construction to the minimum dimensional standards for roads is required. Full mitigation and revegetation is required, with the applicant to submit a mitigation plan pursuant to CDC32.070 and a revegetation plan pursuant to CDC 32.080. The maximum disturbance width for utility corridors is as follows:

1. *For utility facility connections to utility facilities, no greater than 10 feet wide.*

2. *For upgrade of existing utility facilities, no greater than 15 feet wide.*

3. *For new underground utility facilities, no greater than 25 feet wide, and disturbance of no more than 200 linear feet of water quality resource area, or 20 percent of the total linear feet of water quality resource area, whichever is greater.*

Comment: Not applicable. No such facilities, roads, driveways, or utilities are proposed.

M. Structures. All buildings and structures in HCAs and riparian areas, including all exterior mechanical equipment, should be screened, colored, or surfaced so as to blend with the riparian environment. Surfaces shall be non-polished/reflective or at least expected to lose their luster within a year. In addition to the specific standards and criteria applicable to water-dependent uses (docks), all other provisions of this chapter shall apply to water dependent uses, and any structure shall be no larger than necessary to accommodate the use.

Comment: The ramp will be non-polished aluminum.

N. <u>Water-permeable materials for hardscapes</u>. The use of water-permeable materials for parking lots, driveways, patios, and paths as well as flow-through planters, box filters, bioswales and drought tolerant plants are strongly encouraged in all "a" and "b" land classifications and shall be required in all "c" and "d" land classifications. The only exception in the "c" and "d" classifications would be where it is demonstrated that water-permeable driveways/hardscapes could not structurally support the axle weight of vehicles or equipment/storage load using those areas. Flow through planters, box filters, bioswales, drought tolerant plants and other measures of treating and/or detaining runoff would still be required in these areas.

Comment: Not applicable. No parking lots, driveways, patios, and paths, etc. are proposed.

O. <u>Signs and graphics</u>. No sign or graphic display inconsistent with the purposes of the protection area shall have a display surface oriented toward or visible from the Willamette or Tualatin River. A limited number of signs may be allowed to direct public access along legal routes in the protection area.

Comment: Not applicable. No signs or graphics are proposed.

P. Lighting. Lighting shall not be focused or oriented onto the surface of the river except as required by the Coast Guard. Lighting elsewhere in the protection area shall be the minimum necessary and shall not create off-site glare or be omni-directional. Screens and covers will be required.

Comment: Not applicable. No lighting is proposed.

Q. Parking. Parking and unenclosed storage areas located within or adjacent to the protection area boundary shall be screened from the river in accordance with Chapter 46 CDC, Off-Street Parking, Loading and Reservoir Areas. The use of water-permeable material to construct the parking lot is either encouraged or required depending on HCA classification per CDC 28.110(N)(4).

Comment: Not applicable. No parking is proposed in conjunction with the dock.

R. Views. Significant views of the Willamette and Tualatin Rivers shall be protected as much as possible as seen from the following public viewpoints: Mary S. Young Park, Willamette Park, Cedar Oak Park, Burnside Park, Maddox Park, Cedar Island, the Oregon City Bridge, Willamette Park, and Fields Bridge Park.

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

Comment: Not applicable. No significant view of the Willamette River would be impacted by the proposed dock and access ramp.

S. Aggregate deposits. Extraction of aggregate deposits or dredging shall be conducted in a manner designed to minimize adverse effects on water quality, fish and wildlife, vegetation, bank stabilization, stream flow, visual quality, noise and safety, and to promote necessary reclamation.

Comment: Not applicable. No extraction of aggregate or dredging is proposed.

T. Changing the landscape/grading.

Comment: No changing of the landscape or grading is proposed.

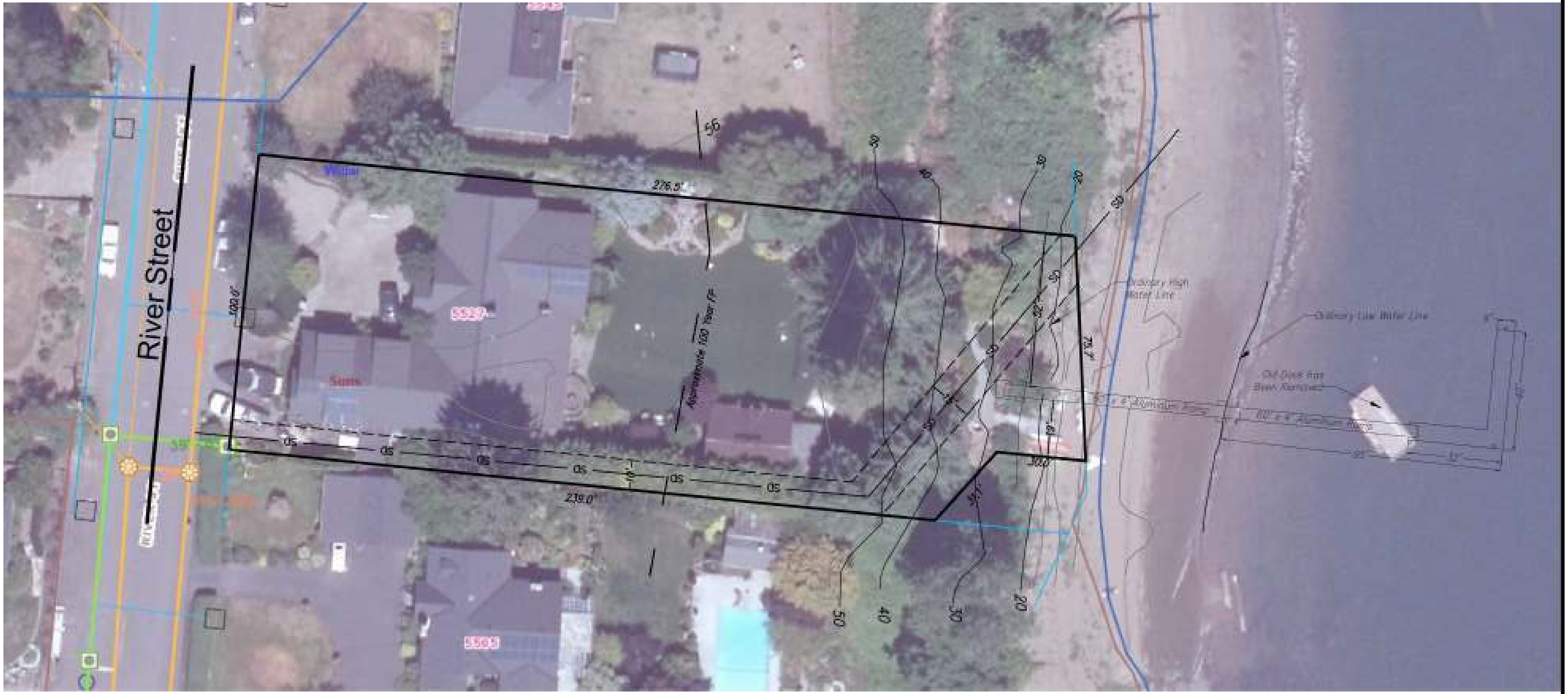
U. Protect riparian and adjacent vegetation. Vegetative ground cover and trees upon the site shall be preserved, conserved, and maintained according to the following provisions:

Comment: As discussed previously, the ramp and dock will be brought to the site via barge from the river. The access ramp will be placed from the river via crane. Using this method will minimize the disturbance of the riparian area to only the immediate site of the concrete pad.

28.160 MITIGATION PLAN

If any HCA is permanently disturbed as a result of the proposed development of any uses or structures, the applicant shall prepare and implement a revegetation and mitigation plan pursuant to the provisions of CDC 32.070 and 32.080. (Ord. 1576, 2008)

Comment: Because the ramp and dock will be brought and placed via barge and crane from the river, there will be negligible impact to the HCA. As a result, no mitigation plan is required.



Note: Location of floodplain shown is per City and Metromap GIS.
Base flood elevation per FEMA Flood Panel 41005C0276D is approximately 48.2' NAVD 88.

Richard E. Givens, Planning Consultant
18680 Sunblaze Dr.
Oregon City, Oregon 97045
PH: (503) 479-0097

SCALE 1" = 40'
DATE: May 2021
PROJECT 20-DYE-105

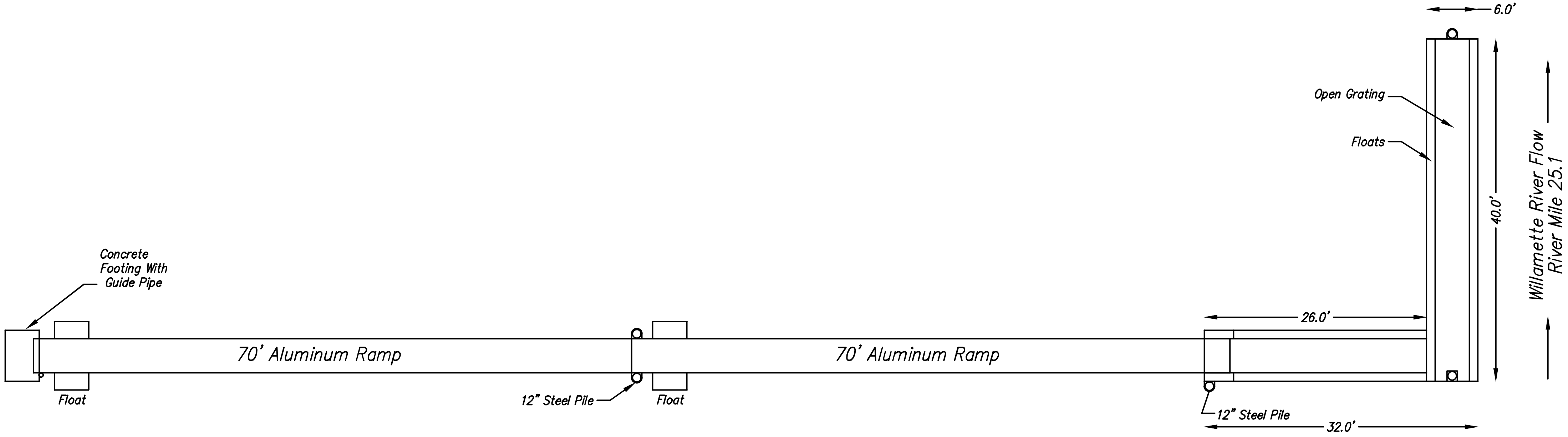
HARPER BOAT DOCK
5527 River Street, West Linn, OR 97068
Owner: Kevin Harper, 503-875-8920

Ken's Floatation Services, Inc.
1701 Clackamette Dr., Oregon City, OR 97045
Contact: Eric Dye, President

NORTH

0 10' 20' 30' 40' 80'
Scale: 1" = 40'

SITE PLAN



Deck Area: 396 Sq. Ft.

Plan View

Scale: 1" = 16'

Harper Dock Project

5527 River Street, West linn, OR 97068

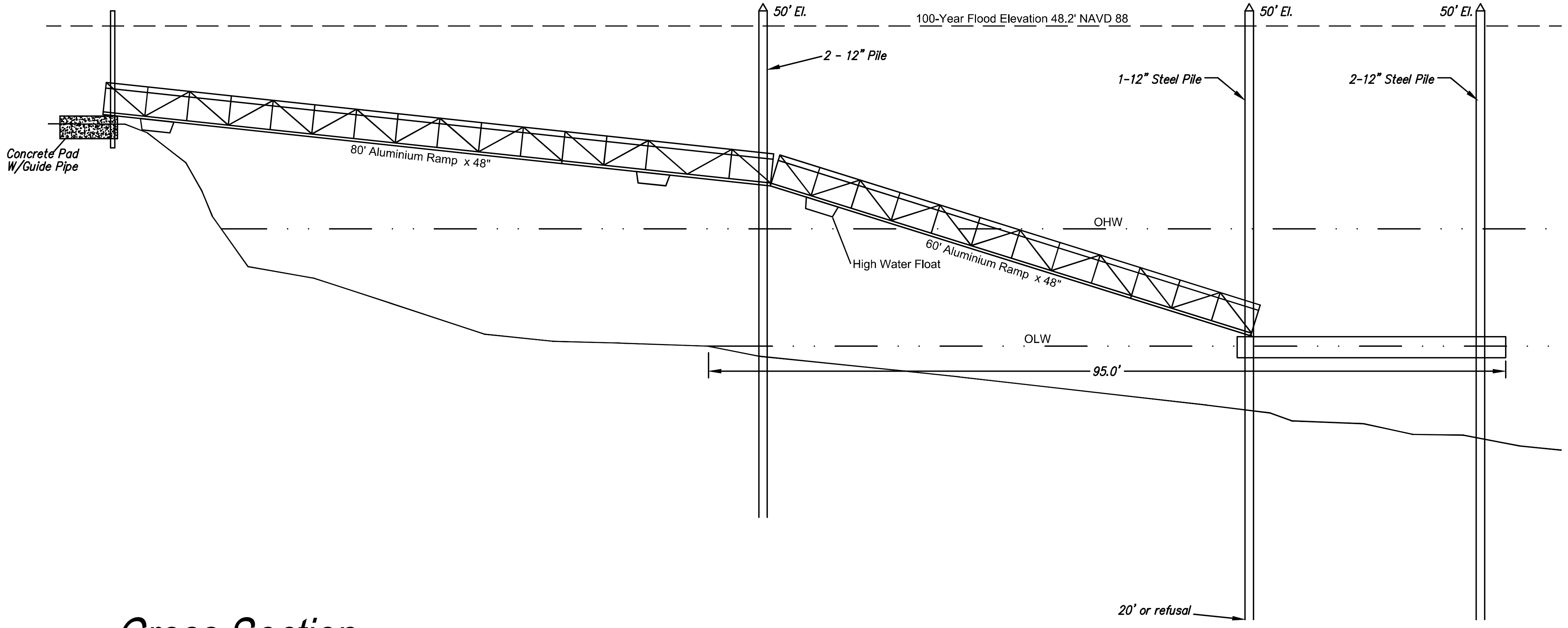
CLIENT: Kevin Harper & Jaquline Ritchie

SCALE 1" = 16'

DATE: 5-1-2021

PROJECT 20-DYE-106

Ken's Floatation Services, Inc.
1701 Clackamette Dr.
Oregon City, Oregon 97045
PH: (503) 449-6667



Cross Section

0 4' 8' 16' 32'

Scale: 1" = 16'

Harper Dock Project

5527 River Street, West linn, OR 97068

CLIENT: Kevin Harper & Jaquline Ritchie

SCALE 1" = 16'

DATE: 5-1-2021

PROJECT 20-DYE-106

Ken's Floatation Services, Inc.
1701 Clackamette Dr.
Oregon City, Oregon 97045
PH: (503) 449-6667

SURVEY NOTES:

THE BASIS OF BEARINGS FOR THIS SURVEY IS PER MONUMENTS FOUND AND HELD PER RECORD OF SURVEY RECORDED UNDER PRIVATE SURVEY NUMBER 2005-240, RECORDS OF CLACKAMAS COUNTY.

NO WARRANTIES ARE MADE AS TO MATTERS OF UNWRITTEN TITLE, SUCH AS ADVERSE POSSESSION, ESTOPPEL, ACQUIESCENCE, ETC.

NO TITLE REPORT WAS SUPPLIED OR USED IN THE PREPARATION OF THIS MAP. POSSIBLE EASEMENTS EXIST ON THE PROPERTY. A TITLE REPORT WILL NEED TO BE PROVIDED FOR THE SURVEYOR TO MAP.

STORM LINE SHOWN PER FOUND ABOVE GROUND STRUCTURES AND UTILITY RECORD AS-BUILTS.

PER FIDELITY NATIONAL TITLE PRELIMINARY TITLE REPORT ORDER NO. 45142120892, DATED JULY 21, 2021:

TITLE EXCEPTION NO. 10 (BOOK 126, PAGE 91): EASEMENT FOR ELECTRIC TRANSMISSION LINES AND RIGHTS TO CHANGE WATER LEVEL OF WILLAMETTE RIVER UNMAPABLE, BLANKET IN NATURE.

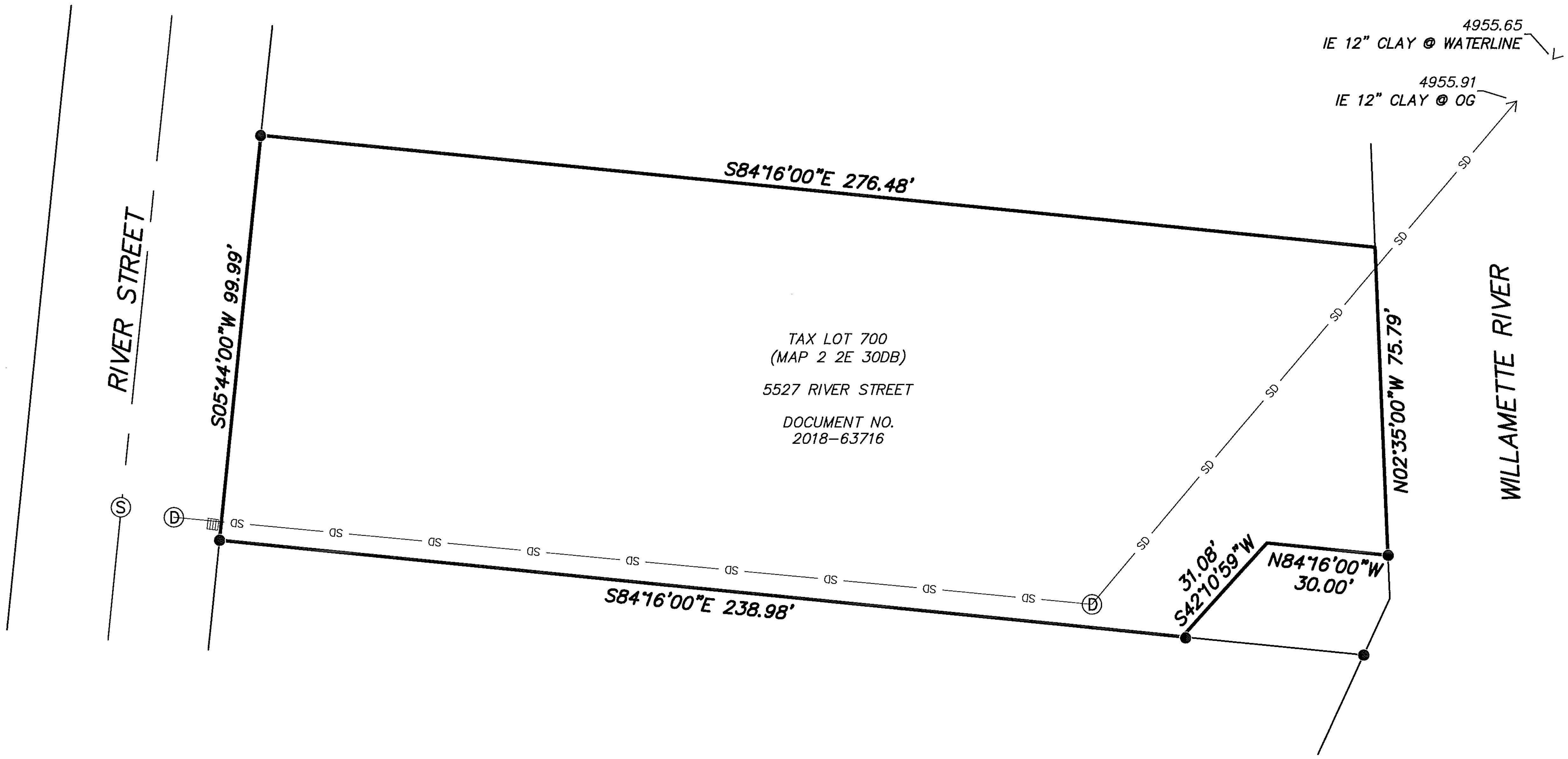
TITLE EXCEPTION NO. 11 (BOOK 412, PAGE 409): SEWER EASEMENT TO CITY OF WEST LINN NOT MAPABLE, NO SPECIFIC DIMENSIONS OR SIZE GIVEN.

SIGNED ON: 7-29-2021

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
NOVEMBER 30, 2007
JAMES BURTON BROWN
60379

RENEWS: DECEMBER 31, 2021



CENTERLINE CONCEPTS
LAND SURVEYING, INC.
19376 MOLALLA AVE., SUITE 120
OREGON CITY, OREGON 97045
PHONE 503.650.0188 FAX 503.650.0189

SCALE DRAWING
5527 RIVER STREET
CITY OF WEST LINN, CLACKAMAS COUNTY, OR
Scale: 1"=30'

CLIENT: HARPER
ORIG. DATE: 5-26-2021
DRAWN BY: MPW
SHEET No. 1 OF 1

Plotted: 7/29/2021 - 1:11pm, M:\PROJECTS\HARPER-RIVER ST-5527\DWG\SCALE.dwg, Layout: EXHIBIT 8.5X11 - 11X17

Munzing
structural engineering

October 8, 2021

Eric Dye
Ken’s Floatation Services, Inc.

RE: Harper Dock Floodway Rise
5227 River Street,
West Linn, Oregon

Eric:

This letter is in response to your request for an investigation of the Willamette River base flood water elevation rise due to the installation of piles, gangway, and dock at the above referenced location. We have investigated the floodway elevation rise using a two-dimensional river section based on data from FEMA flood insurance maps for a 100-year flood. Based on our investigation using a two-dimensional cross-sectional analysis, we anticipate a negligible water elevation rise of the river cross section at the dock location during a 100-year flood event. Please reference the following calculation.

If you have any questions, please do not hesitate to call.

Sincerely,

Munzing Structural Engineering

Jeremy Gavelin

REGISTERED PROFESSIONAL
ENGINEER
79303PE
OREGON
JUNE 14, 2007
MICHAEL R. MUNZING
EXPIRES: 12/31/22

Michael Munzing, P.E.
Principal

Attachments:
Base flood elevation rise calculation

Munzing
structural engineering

Project No. 21-216	Sheet No.
Project HARPER Dock	Date
Subject NO-RISE CALCULATION	By JG

NEAREST RIVER SECTION : R

RIVER BED DEPTH @ PROJECT = -30 ft

RIVER BED WIDTH = 1335 ft

SECTION AREA = 48,241 ft^2

FLOOD ELEVATION = 48.4 ft

AREA OF NEW PILES

A_1 = 1 ft (39.5 ft) = 39.5 ft^2

A_2 = 1 ft (53 ft) = 53 ft^2

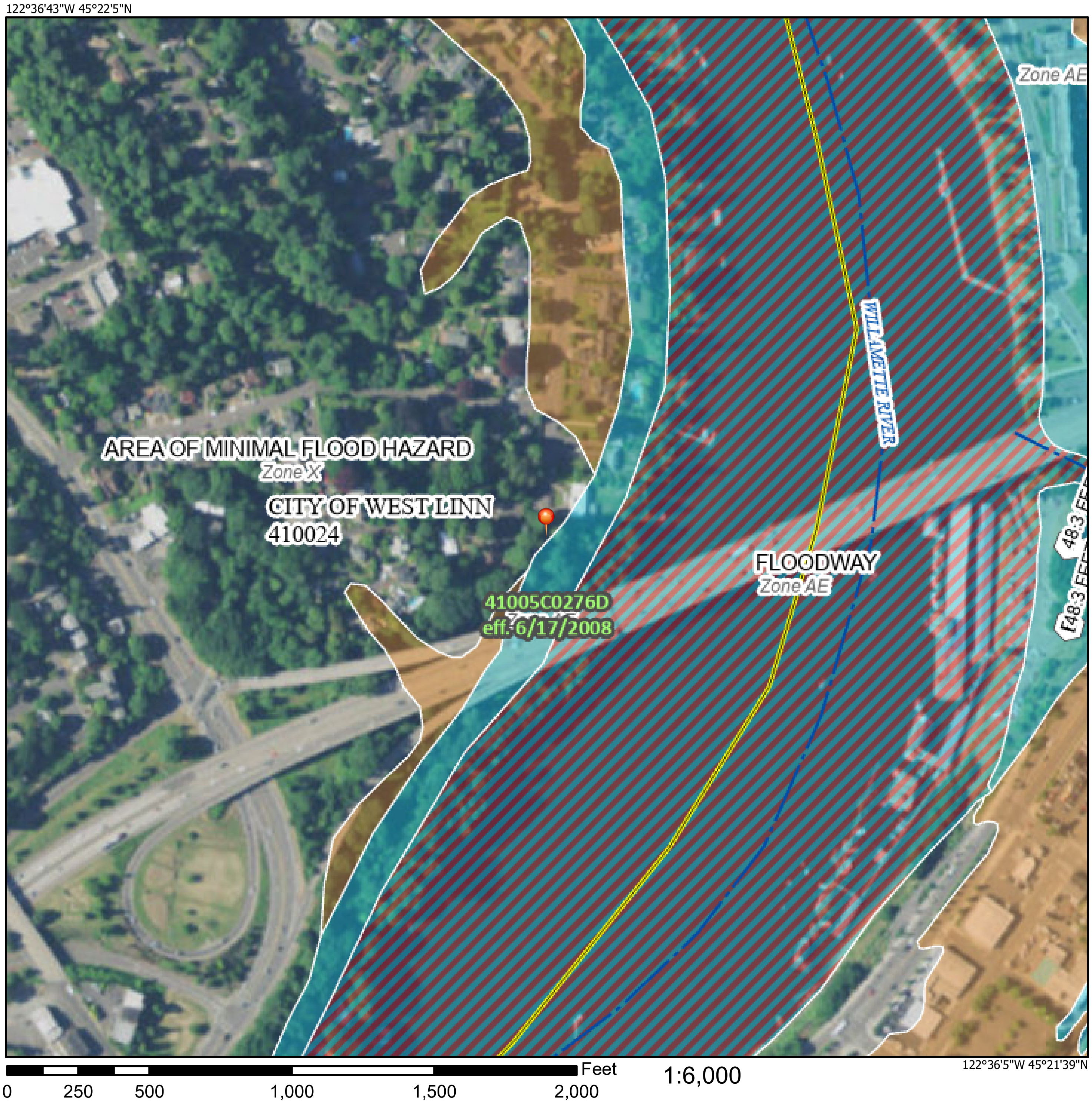
A_3 = 1 ft (55 ft) = 55 ft^2

RISE = (39.5 ft + 53 ft^2 + 55 ft^2) / (1335 ft) = 0.1104 ft

= 1.33 in

2-D CROSS SECTIONAL ANALYSIS ASSUMES VERTICAL RIVERBANK AND WATER DISPLACEMENT WITHIN THE 2-D CROSS-SECTION. THESE ASSUMPTIONS ARE TYPICALLY CONSERVATIVE.

National Flood Hazard Layer FIRMette



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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
	IIIIIII	Levee, Dike, or Floodwall
OTHER FEATURES	Ⓑ 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

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 10/8/2021 at 6:07 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.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
					FEET (NAVD)			
WILLAMETTE RIVER								
A	91,661	964/460[2]	58,628	6.4	34.7	34.7	35.4	0.7
B	94,161	985/390[2]	63,554	5.9	35.3	35.3	36.0	0.7
C	96,691	815/220[2]	51,043	7.3	35.6	35.6	36.3	0.7
D	98,381	1,325/500[2]	85,767	4.4	36.3	36.3	37.0	0.7
E	100,861	1,519/1,020[2&3]	63,590	5.9	36.4	36.4	37.0	0.6
F	104,979	955	52,697	7.1	36.7	36.7	37.4	0.7
G	105,719	778	47,756	7.9	36.7	36.7	37.4	0.7
H	106,469	1,005	62,300	6.0	37.4	37.4	38.1	0.7
I	110,312	895	43,115	8.7	37.6	37.6	38.1	0.5
J	111,912	550	44,879	8.4	38.1	38.1	38.9	0.8
K	113,540	520	31,029	12.1	39.3	39.3	40.0	0.7
L	115,130	820	54,496	6.9	42.7	42.7	43.4	0.7
M	118,034	578	37,630	10.0	44.0	44.0	44.7	0.7
N	122,034	1,440	64,809	5.8	46.1	46.1	46.8	0.7
O	125,434	800	46,296	8.1	46.2	46.2	46.9	0.7
P	126,834	1,370	55,501	6.8	46.8	46.8	47.5	0.7
Q	129,034	1,230	52,785	7.1	47.2	47.2	47.9	0.7
R	131,034	1,335	48,241	7.8	47.7	47.7	48.4	0.7
S	143,020	888	42,725	8.0	74.5	74.5	74.7	0.2
T	145,970	1,040	47,541	7.2	74.9	74.9	75.1	0.2
U	149,170	1,050	51,473	6.6	75.2	75.2	75.3	0.1
V	165,070	665	31,973	10.3	84.3	84.3	85.3	1.0
W	168,300	1,450	66,319	4.9	86.4	86.4	87.3	0.9
X	170,950	1,057	47,397	6.9	86.6	86.6	87.5	0.9
Y	174,825	1,100	52,109	6.3	87.5	87.5	88.4	0.9
Z	176,685	705	37,988	8.6	87.5	87.5	88.4	0.9

[1] Stream distance in feet above mouth

[2] Width/width within study area

[3] Values calculated from original model prior redelineation

TABLE 5

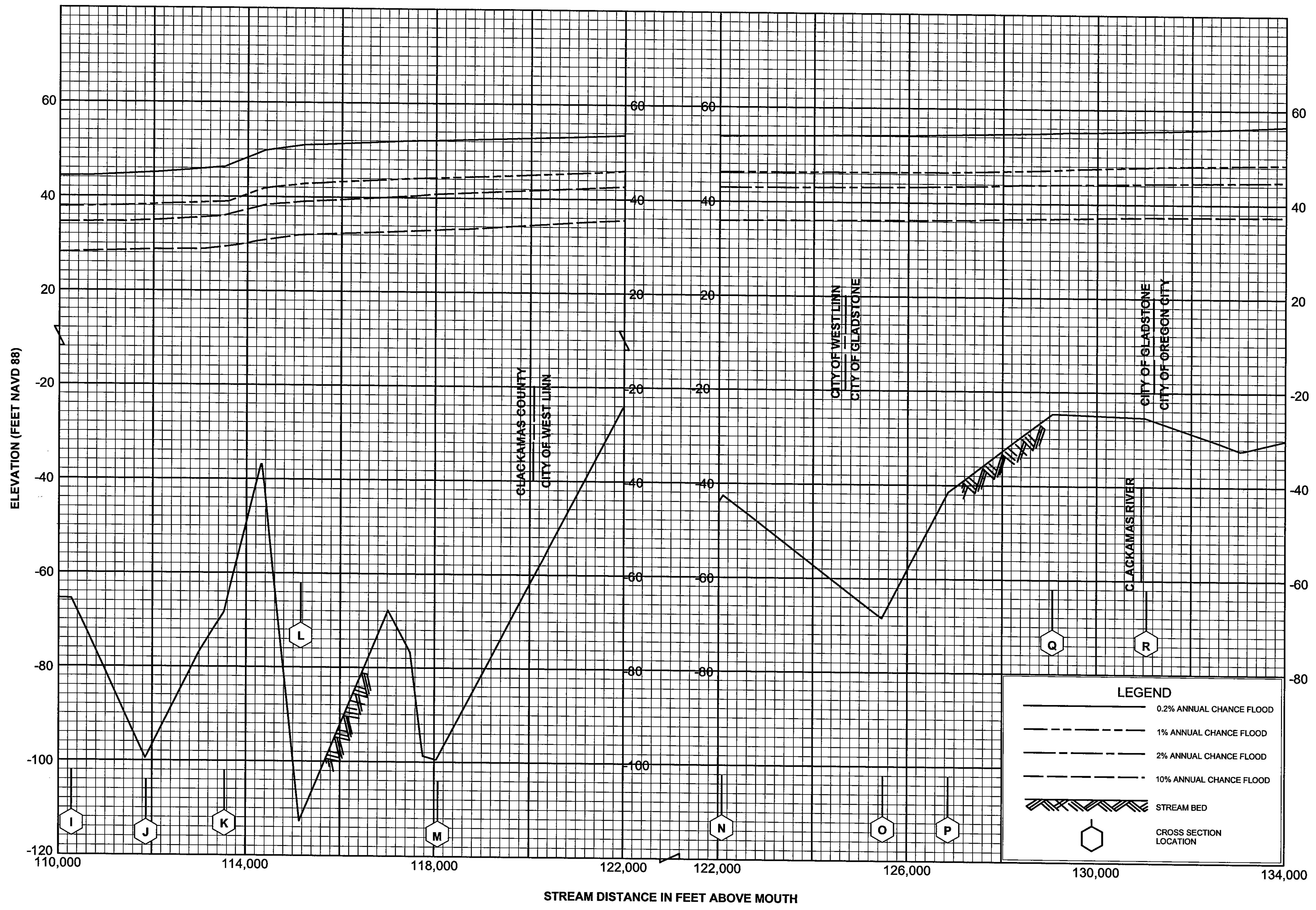
FEDERAL EMERGENCY MANAGEMENT AGENCY

CLACKAMAS COUNTY, OR

AND INCORPORATED AREAS

FLOODWAY DATA

WILLAMETTE RIVER



FLOOD PROFILES

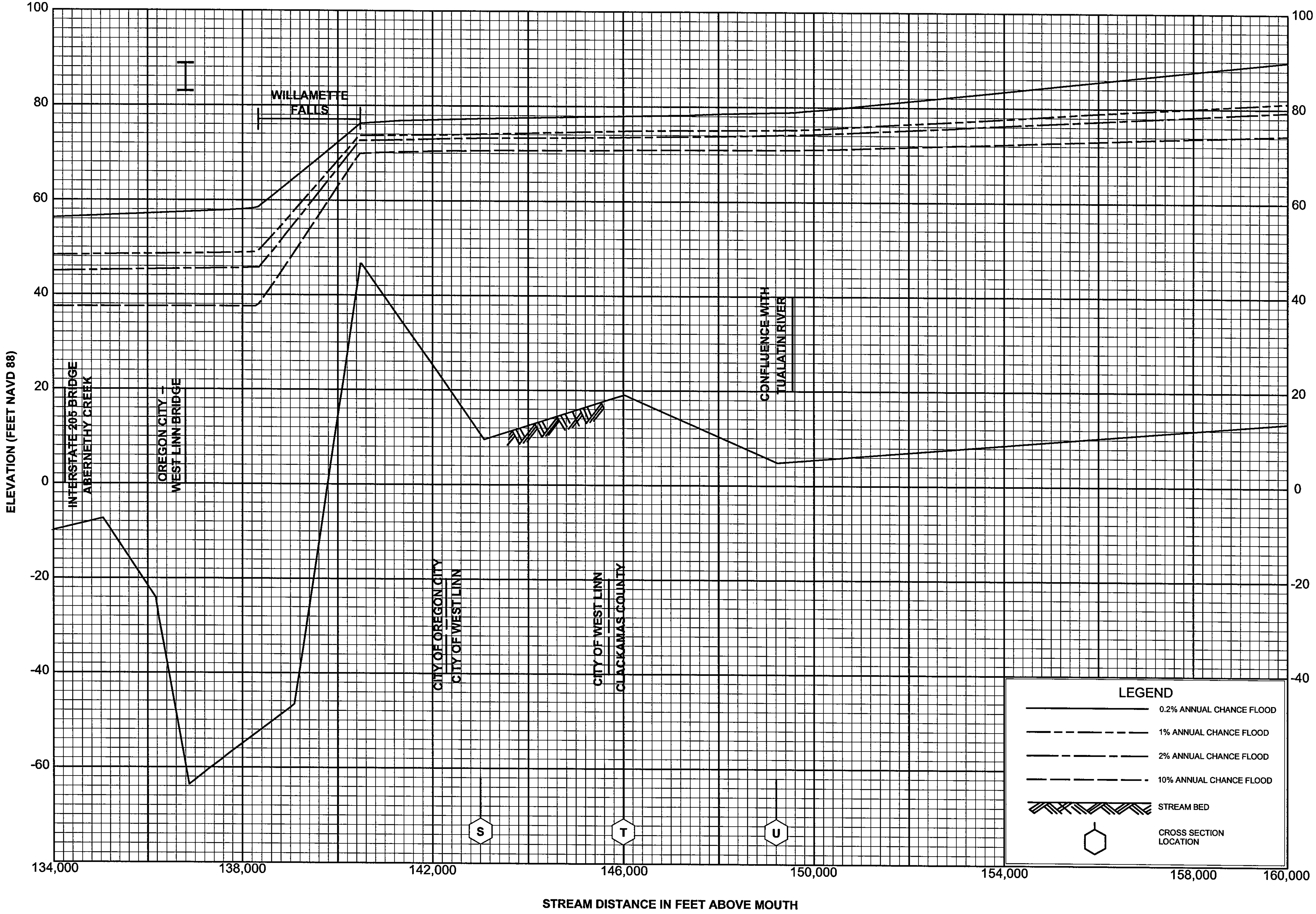
WILLAMETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

CLACKAMAS COUNTY, OR

AND INCORPORATED AREAS

150P



FLOOD PROFILES

WILLAMETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

CLACKAMAS COUNTY, OR

AND INCORPORATED AREAS

151P

Munzing
structural engineering

STRUCTURAL CALCULATIONS

The Harper Dock

5527 River St. West Linn, Oregon

Ken's Floatation Services

REGISTERED PROFESSIONAL
ENGINEER
79303PE
OREGON
JUNE 14, 2007
MICHAEL R. MUNZING
EXPIRES: 12/31/22

LIMITATIONS

Engineer was retained in a limited capacity for this project. Design is based upon information provided by the client who is solely responsible for accuracy of same. No responsibility and/or liability is assumed by or is to be assigned to engineer for items beyond that shown on these sheets.

Project No. 21-216
October 18th, 2021

CLIENT: Ken’s Floatation Services
PROJECT: Harper Dock
PROJECT NUMBER: 21-216
DATE: 10/18/2021
BY: Munzing Structural Engineering

Design Criteria

General

Building Department	City of West Linn
Building Code/Year	2018 IBC/2019 OSSC

Ramp Loads

Snow Load	25 psf
Dead Load	15 psf
Live Load	40 psf

Wind Loads

Design Wind Speed (3-Sec Gust)	98 mph
Exposure	C

Seismic Loads

Project Site Zip Code	97068
Seismic Soil Site Class	D

Special Seismic Ordinances/Notes: None

Soil Parameters

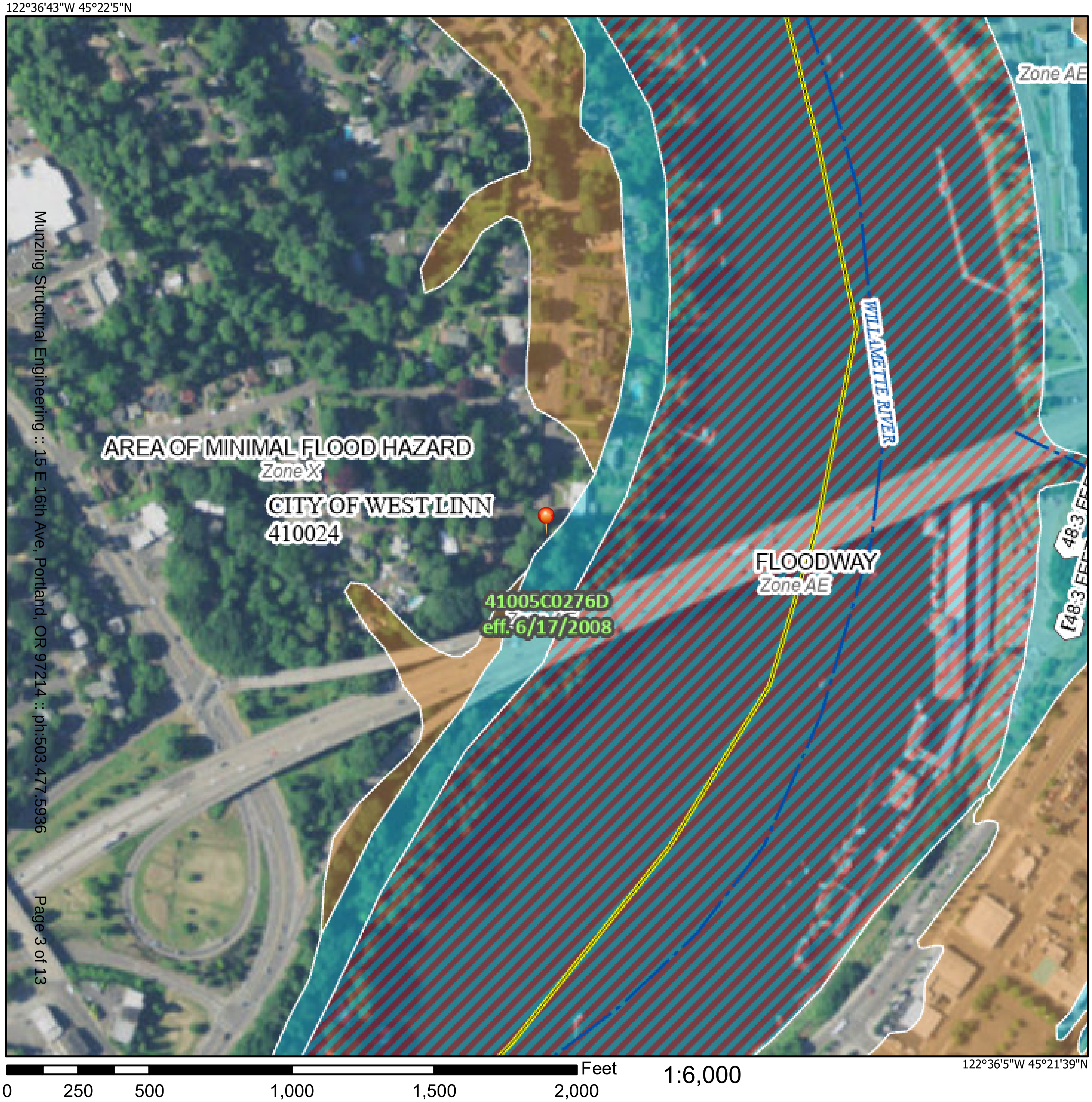
Allowable Soil Bearing Pressure	1500 psf
1/3 Increase for Wind/Earthquake forces?	yes
Minimum Footing Depth	18"
Active Pressure (unrestrained)	40 pcf
Active Pressure (restrained)	60 pcf
Passive Pressure	250 pcf
Coefficient of Friction	0.35

Structural Narrative

Munzing Structural Engineering, LLC (Munzing) has been contracted to analyze the proposed piles for draft loads during a 100-year flood event. Our limited analysis assumes that the piles are cantilevered members, having a fully fixed support at the soil interface. Flood loads have been determined using data from the Federal Emergency Management Agency’s Flood Insurance Study No. 41005CV001A.

National Flood Hazard Layer FIRMette

FEMA



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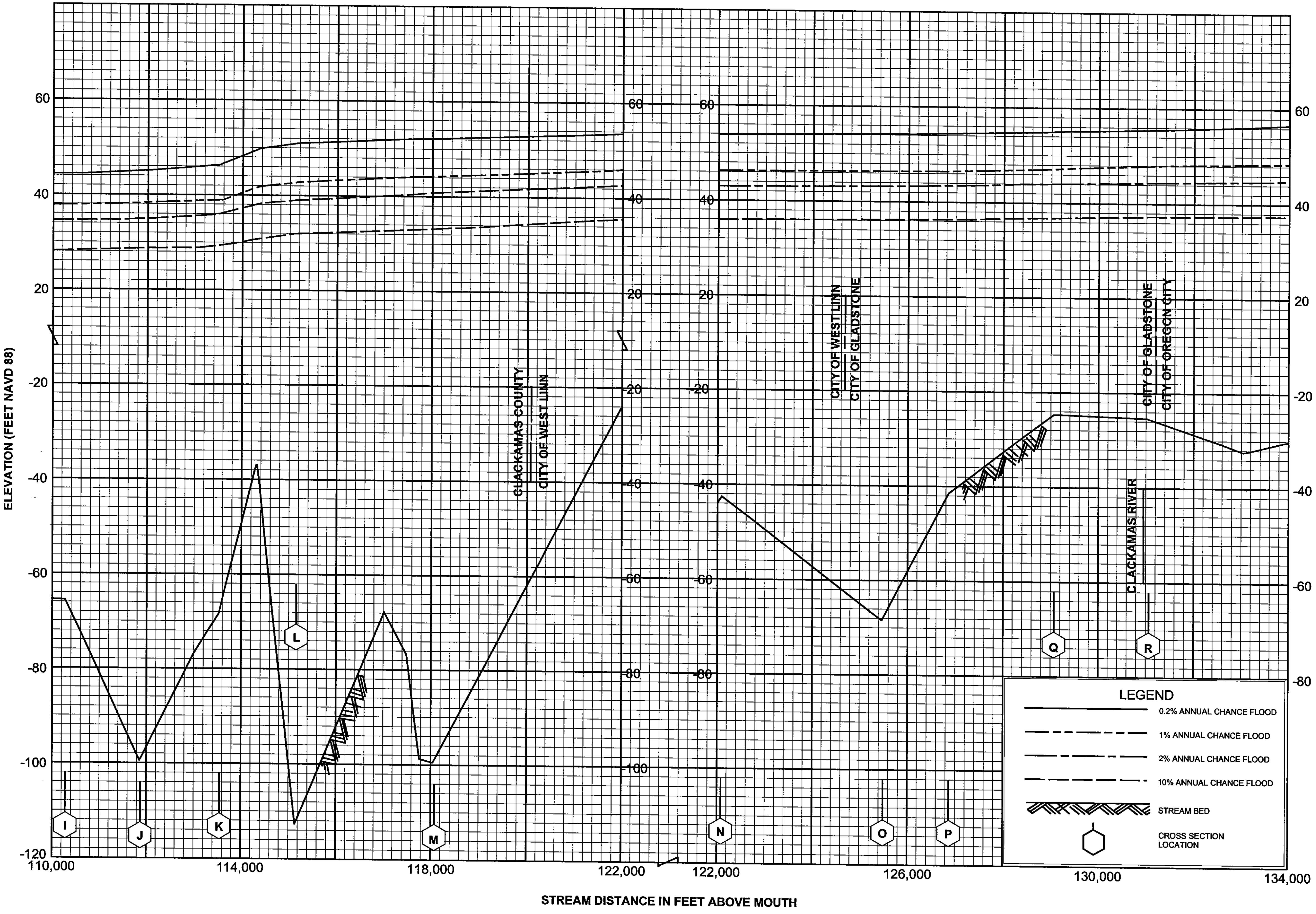

FLOOD PROFILES

WILLAMETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

CLACKAMAS COUNTY, OR

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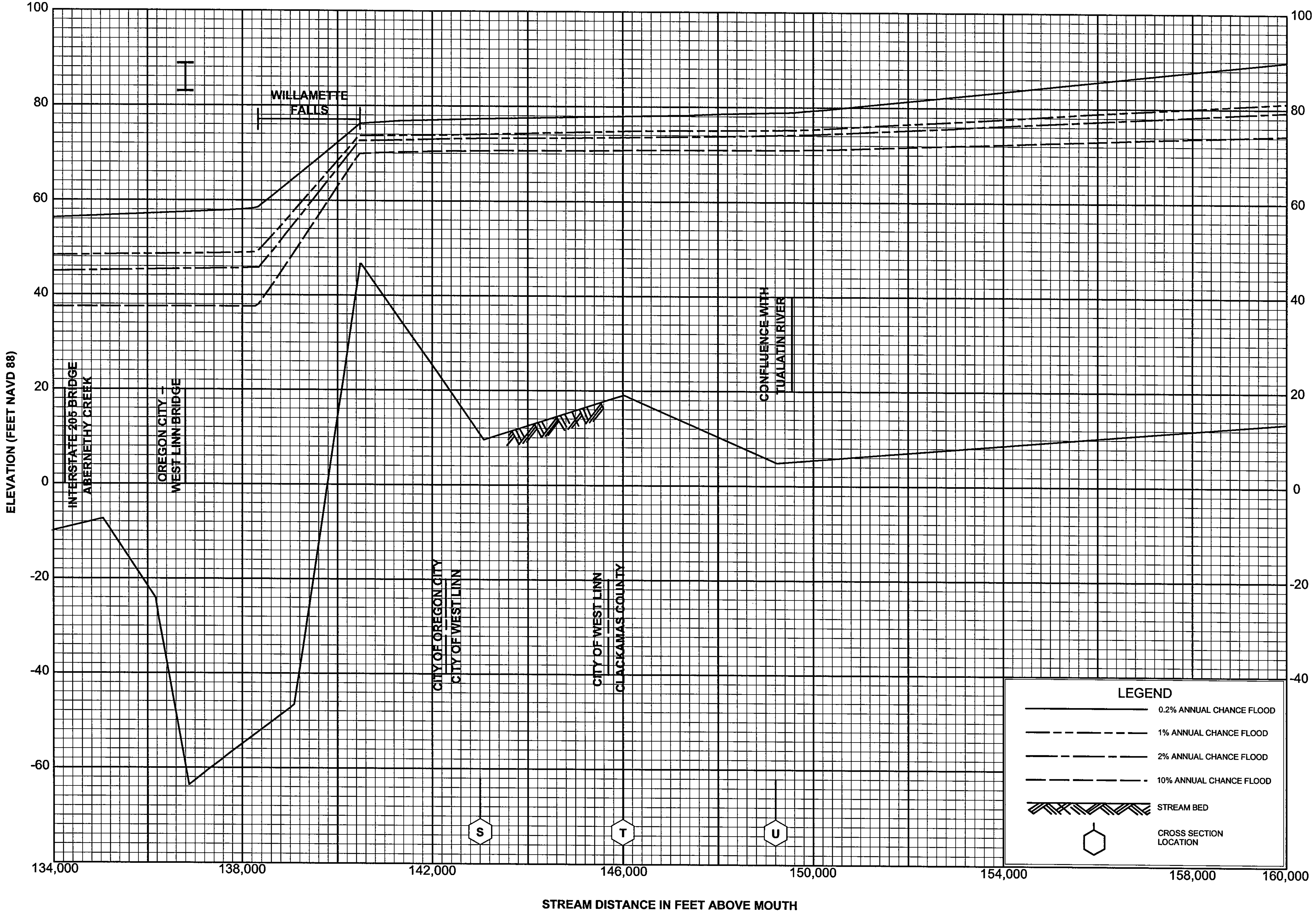
150P



FLOOD PROFILES

WILLAMETTE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

CLACKAMAS COUNTY, OR

AND INCORPORATED AREAS

151P

Floodway Loading

Design per 2012 International Building Code as modified by the State of Oregon

Harper Ramp

FEMA CCM Equation 8.8 - Hydrodynamic Load (for All Flow Velocities) (Ramp Pile)

$$F_{dyn} = (1/2)\, C_d \rho V^2 A \qquad \text{Eq. 8.8}$$

where:

F_{dyn} = horizontal drag force (lb) acting on the stillwater mid-depth (half way between the stillwater level and the eroded ground surface)

C_d = drag coefficient (recommended coefficient are 2.0 for square or rectangular piles and 1.2 for round piles; for other obstructions, see Table 8-2)

ρ = mass density of fluid (1.94 slugs/ft^2 for fresh water and 1.99 slugs/ft^2 for saltwater)

V = Velocity of water (ft/sec); see Equation 8.2

A = surface area of obstruction normal to flow (ft^2) = (w)(d$_s$) if object is not fully immersed, see figure 8-13 or (w)(h) if the object is completely immersed

h = the height of the object (ft) if the object is completely immersed in water

d_s = stillwater flood depth of the water (ft) if the object is not fully immersed

Calculation

Input:

C_d = 1.20

ρ = 1.94 slugs/ft^2

V = 7.80 ft/sec

w = 1.00 ft

h = 39.50 ft — Leave blank if object is not completely immersed.

d_s = ft

Output:

A = 39.5 ft^2 — (A = d$_s$*w or h*w)

F_{dyn} = **2797.30** lb — Eq. 8.8

Distributed Load = 70.818 plf

Floodway Loading

Design per 2012 International Building Code as modified by the State of Oregon

Harper Ramp

FEMA CCM Equation 8.8 - Hydrodynamic Load (for All Flow Velocities) (Dock Pile)

$$F_{dyn} = (1/2)\, C_d \rho V^2 A$$ Eq. 8.8

where:

F_{dyn} = horizontal drag force (lb) acting on the stillwater mid-depth (half way between the stillwater level and the eroded ground surface)

C_d = drag coefficient (recommended coefficient are 2.0 for square or rectangular piles and 1.2 for round piles; for other obstructions, see Table 8-2)

ρ = mass density of fluid (1.94 slugs/ft^2 for fresh water and 1.99 slugs/ft^2 for saltwater)

V = Velocity of water (ft/sec); see Equation 8.2

A = surface area of obstruction normal to flow (ft^2) = (w)(d$_s$) if object is not fully immersed, see figure 8-13 or (w)(h) if the object is completely immersed

h = the height of the object (ft) if the object is completely immersed in water

d_s = stillwater flood depth of the water (ft) if the object is not fully immersed

Calculation

Input:

C_d	=	1.20		
ρ	=	1.94	slugs/ft^2	
V	=	7.80	ft/sec	
w	=	1.00	ft	
h	=	55.00	ft	Leave blank if object is not completely immersed.
d_s	=		ft	

Output:

A	=	55	ft^2	(A = d$_s$*w or h*w)
$\boldsymbol{F_{dyn}}$	=	**3894.98**	lb	Eq. 8.8
Distributed Load	=	70.818	plf	

FEMA CCM Equation 8.8 - Hydrodynamic Load (for All Flow Velocities) (Ramp Float)

$$F_{dyn} = (1/2)\, C_d \rho V^2 A \qquad \text{Eq. 8.8}$$

where:

F_{dyn} = horizontal drag force (lb) acting on the stillwater mid-depth (half way between the stillwater level and the eroded ground surface)

C_d = drag coefficient (recommended coefficient are 2.0 for square or rectangular piles and 1.2 for round piles; for other obstructions, see Table 8-2)

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V = Velocity of water (ft/sec)

A = surface area of obstruction normal to flow (ft^2) = (w)(d_s) if object is not fully immersed, see figure 8-13 or (w)(h) if the object is completely immersed

h = the height of the object (ft) if the object is completely immersed in water

d_s = stillwater flood depth of the water (ft) if the object is not fully immersed

Calculation

Input:

C_d = 1.25

ρ = 1.94 slugs/ft^2

V = 7.80 ft/sec

w = 3.00 ft

h = ft Leave blank if object is not completely immersed.

d_s = 2.00 ft

Output:

A = 6 ft^2 (A = d_s*w or h*w)

$\boldsymbol{F_{dyn}}$ = **442.61** lb Eq. 8.8

Floodway Loading

Design per 2012 International Building Code as modified by the State of Oregon

Harper Ramp

FEMA CCM Equation 8.8 - Hydrodynamic Load (for All Flow Velocities) (Dock Float)

$$F_{dyn} = (1/2)\, C_d \rho V^2 A \qquad \text{Eq. 8.8}$$

where:

F_{dyn} = horizontal drag force (lb) acting on the stillwater mid-depth (half way between the stillwater level and the eroded ground surface)

C_d = drag coefficient (recommended coefficient are 2.0 for square or rectangular piles and 1.2 for round piles; for other obstructions, see Table 8-2)

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h = the height of the object (ft) if the object is completely immersed in water

d_s = stillwater flood depth of the water (ft) if the object is not fully immersed

Calculation

Input:

C_d = 1.25

ρ = 1.94 slugs/ft^2

V = 7.80 ft/sec

w = 6.00 ft

h = ft Leave blank if object is not completely immersed.

d_s = 1.00 ft

Output:

A = 6 ft^2 (A = d$_s$*w or h*w)

$\boldsymbol{F_{dyn}}$ = **442.61** lb Eq. 8.8

Steel Column

DESCRIPTION: Ramp Pile

Code References

Calculations per AISC 360-16, IBC 2018, CBC 2019, ASCE 7-16
Load Combinations Used : ASCE 7-16

General Information

Steel Section Name : **Pipe12xS**
Analysis Method : Allowable Strength
Steel Stress Grade , A53, Grade B, Fy = 35 ksi, Carbon
Fy : Steel Yield 35.0 ksi
E : Elastic Bending Modulus 29,000.0 ksi

Overall Column Height 39.50 ft
Top & Bottom Fixity Top Free, Bottom Fixed
Brace condition for deflection (buckling) along columns :
X-X (width) axis :
Unbraced Length for buckling ABOUT Y-Y Axis = 39.50 ft, K = 2.1
Y-Y (depth) axis :
Unbraced Length for buckling ABOUT X-X Axis = 39.50 ft, K = 2.1

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 2,587.25 lbs * Dead Load Factor
BENDING LOADS . . .
Flood: Lat. Uniform Load creating Mx-x, H = 0.0710 k/ft
Ramp Float: Lat. Point Load at 39.50 ft creating Mx-x, H = 0.4420 k
Ramp Float: Lat. Point Load at 39.50 ft creating Mx-x, H = 0.4420 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS	Max. Axial+Bending Stress Ratio =	**0.7623**	: 1
	Load Combination	+D+H	
	Location of max.above base	0.0	ft
	At maximum location values are . . .		
	Pa : Axial	2.587	k
	Pn / Omega : Allowable	50.235	k
	Ma-x : Applied	-90.307	k-ft
	Mn-x / Omega : Allowable	122.605	k-ft
	Ma-y : Applied	0.0	k-ft
	Mn-y / Omega : Allowable	122.605	k-ft
PASS	Maximum Shear Stress Ratio =	**0.03352**	: 1
	Load Combination	+D+H	
	Location of max.above base	0.0	ft
	At maximum location values are . . .		
	Va : Applied	3.689	k
	Vn / Omega : Allowable	110.030	k

Maximum Load Reactions . .

Top along X-X	0.0	k
Bottom along X-X	0.0	k
Top along Y-Y	0.0	k
Bottom along Y-Y	4.195	k

Maximum Load Deflections . . .

Along Y-Y 16.058 in at 53.0ft above base
for load combination :H Only

Along X-X 0.0 in at 0.0ft above base
for load combination :

X-X & Y-Y kl/r > 200

Steel Column

DESCRIPTION: Dock Pile - A

Code References

Calculations per AISC 360-16, IBC 2018, CBC 2019, ASCE 7-16
Load Combinations Used : ASCE 7-16

General Information

Steel Section Name :	**Pipe12xS**
Analysis Method :	Allowable Strength
Steel Stress Grade	, A53, Grade B, Fy = 35 ksi, Carbon
Fy : Steel Yield	35.0 ksi
E : Elastic Bending Modulus	29,000.0 ksi

Overall Column Height	53.0 ft
Top & Bottom Fixity	Top Free, Bottom Fixed

Brace condition for deflection (buckling) along columns :
X-X (width) axis :
Unbraced Length for buckling ABOUT Y-Y Axis = 53.0 ft, K = 2.1
Y-Y (depth) axis :
Unbraced Length for buckling ABOUT X-X Axis = 53.0 ft, K = 2.1

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 3,471.50 lbs * Dead Load Factor
BENDING LOADS . . .
Flood: Lat. Uniform Load creating Mx-x, H = 0.07082 k/ft
Dock Float: Lat. Point Load at 53.0 ft creating Mx-x, H = 0.4420 k

DESIGN SUMMARY

Bending & Shear Check Results

FAIL	Max. Axial+Bending Stress Ratio =	**1.040**	: 1
	Load Combination	+0.60D+0.70E+H	
	Location of max.above base	0.0	ft
	At maximum location values are . . .		
	Pa : Axial	2.083	k
	Pn / Omega : Allowable	27.903	k
	Ma-x : Applied	-122.890	k-ft
	Mn-x / Omega : Allowable	122.605	k-ft
	Ma-y : Applied	0.0	k-ft
	Mn-y / Omega : Allowable	122.605	k-ft
PASS	Maximum Shear Stress Ratio =	**0.03813**	: 1
	Load Combination	+0.60D+0.70E+H	
	Location of max.above base	0.0	ft
	At maximum location values are . . .		
	Va : Applied	4.195	k
	Vn / Omega : Allowable	110.030	k

Maximum Load Reactions . .

Top along X-X	0.0 k
Bottom along X-X	0.0 k
Top along Y-Y	0.0 k
Bottom along Y-Y	4.195 k

Maximum Load Deflections . . .

Along Y-Y	16.058 in	at	53.0ft	above base
for load combination :	H Only			
Along X-X	0.0 in	at	0.0ft	above base
for load combination :				

X-X & Y-Y kl/r > 200

Less than 5% overstressed. Given factors of safety, this is within acceptable tolerance as the pile will only see this loading condition during a 100 year frequency event.

Steel Column

DESCRIPTION: Dock Pile - B

Code References

Calculations per AISC 360-16, IBC 2018, CBC 2019, ASCE 7-16
Load Combinations Used : ASCE 7-16

General Information

Steel Section Name :	**Pipe12xS**
Analysis Method :	Allowable Strength
Steel Stress Grade	, A53, Grade B, Fy = 35 ksi, Carbon
Fy : Steel Yield	35.0 ksi
E : Elastic Bending Modulus	29,000.0 ksi

Overall Column Height	55 ft
Top & Bottom Fixity	Top Free, Bottom Fixed

Brace condition for deflection (buckling) along columns :
X-X (width) axis :
Unbraced Length for buckling ABOUT Y-Y Axis = 55 ft, K = 2.1
Y-Y (depth) axis :
Unbraced Length for buckling ABOUT X-X Axis = 55 ft, K = 2.1

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 3,602.50 lbs * Dead Load Factor
BENDING LOADS . . .
Flood: Lat. Uniform Load creating Mx-x, H = 0.07082 k/ft
Dock Float: Lat. Point Load at 55.0 ft creating Mx-x, H = 0.2210 k

DESIGN SUMMARY

Bending & Shear Check Results

FAIL Max. Axial+Bending Stress Ratio =	**1.014**	: 1
Load Combination	+0.60D+0.70E+H	
Location of max.above base	0.0	ft
At maximum location values are . . .		
Pa : Axial	2.162	k
Pn / Omega : Allowable	25.910	k
Ma-x : Applied	-119.267	k-ft
Mn-x / Omega : Allowable	122.605	k-ft
Ma-y : Applied	0.0	k-ft
Mn-y / Omega : Allowable	122.605	k-ft
PASS Maximum Shear Stress Ratio =	**0.03741**	: 1
Load Combination	+0.60D+0.70E+H	
Location of max.above base	0.0	ft
At maximum location values are . . .		
Va : Applied	4.116	k
Vn / Omega : Allowable	110.030	k

Maximum Load Reactions . .

Top along X-X	0.0 k
Bottom along X-X	0.0 k
Top along Y-Y	0.0 k
Bottom along Y-Y	4.195 k

Maximum Load Deflections . . .

Along Y-Y	16.058 in	at	53.0 ft	above base
for load combination :H Only				
Along X-X	0.0 in	at	0.0 ft	above base
for load combination :				

X-X & Y-Y kl/r > 200

Less than 5% overstressed. Given factors of safety, this is within acceptable tolerance as the pile will only see this loading condition during a 100 year frequency event.

DSL USE ONLY DSL No. 63318 Revised

Issue Date: June 13, 2021 Expiration Date: June 13, 2024

In-Water Work Period: July 1 to October 31

☒ Eligible 6/13/2021 (Date) ☐ Incomplete ____ (Date) ☐ Ineligible ____ (Date)

☒ Activity on state-owned waterway ☐ Proprietary Auth on File: ____

☒ Access Agreement attached ☒ Further Action Required by Applicant:

☒ Registration ☐ Lease/License ☐ Other Contact: Jaclyn Zatta (503) 986-5274

RC Signature: Katie Blauvelt

GENERAL AUTHORIZATION ELIGIBILITY VERIFICATION FORM AND NOTICE FOR EXEMPTION OF CERTAIN VOLUNTARY HABITAT RESTORATION ACTIVITIES

RECEIVED
MAY 12 2021
DEPARTMENT OF STATE LANDS

1. RESPONSIBLE PERSON CONTACT INFORMATION

Name (print) Eric Dye	Affiliation (company or agency) Ken's Floatation Services, Inc.	
Mailing address or PO Box 1701 Clackamette Drive		
City Oregon City	State OR	Zip Code 97045
Phone number 503-449-6667	Cell or alternate number Same	
E-mail kfsdocks@comcast.net	Fax number	

2. LANDOWNER INFORMATION (if different than responsible party)

Name (print) Kevin Harper & Jacquline Ritchie		
Mailing address or PO Box 5527 River Street		
City West Linn	State OR	Zip Code 97068
Phone number (503) 274-8133	E-mail kevinharper@comcast.net	

3. PROJECT LOCATION INFORMATION

County: Clackamas		Nearest City: West Linn, OR	
Physical address or description: 5527 River Street, West Linn, OR 97068			
X Stream	Name of stream Willamette River	Tributary of Columbia River	River mile 25.1
Is this designated essential salmon habitat (ESH)? X Yes ☐No			
☐ Wetland	Cowardin Class	HGM	

LATITUDE AND LONGITUDE (In Decimal Degrees, example: DD.DDDDDD)
LEGAL DESCRIPTION FOR PROJECT
(Check the description that applies and enter information below)

☐ Project with single removal-fill site. Provide the information for the removal-fill site under “Start.”
☐ Project with multiple removal-fill sites. Provide the following for the project center point “Start.”
☐ Linear project. Provide the following information for the project start point and end point.

Start point Latitude: 45.36567 **Start** Longitude: -122.60540_______

Township: **2S** Range: **2E** Section: **30** ¼ - ¼ Section: **DB** Tax lot(s): **700**

End point Latitude: _____________ **End** point Longitude: ___________

Township: _____ Range: _____ Section: _____ ¼ - ¼ Section: _____ Tax lot(s): _____

4. PROJECT INFORMATION

Anticipated project dates: Start (mo) 7 (yr)2021 Completion (mo) 8 (yr) 2021

5. ACTIVITIES FOR THIS PROJECT. Check all that apply.

☐ Minimal Disturbance within ESH Waters *No Fee*

X Piling Placement and Removal in Non-Tidal Waters *No Fee*

☐ Temporary Impacts to Non-tidal Wetlands *Fee May Apply*

☐ Waterway Bank Stabilization *No Fee*

☐ Certain Transportation-Related Activities *Fee May Apply*

☐ Removing and Disposing of Sediment Behind Tidegates and Hydraulically Closed Perimeters *Fee May Apply*

☐ Waterway Habitat Restoration *No Fee*

☐ Wetland Ecosystem Restoration *No Fee*

☐ Notice for Exemption of Certain Voluntary Habitat Restoration Activities *No Fee*
(Must be combined with another activity listed above, see page 16 for further information.)

General Authorization for Piling Placement and Removal within ESH

OAR 141-089-0680 through 141-089-0695

Project purpose:

X Over-water structure support (docks, piers, boardwalks)
☐ Mooring and turning dolphins
☐ Navigational aids without footings
☐ Other support structure, please specify: ______

Eligibility (Check all that apply):

☒ All activity will be in non-tidal waters* and not in wetlands.
☒ The piling diameter is 24 inches in diameter or smaller.
☒ No new upland will be created as a result of this activity.
☒ The piling placement is not for bank stabilization or other bank treatment.
☒ The piling placement will not impede flows or deflect water to cause erosion.

Activity (Check all that apply):

☒ Piling Placement:

Number: 5 Diameter: 12 inches Method of placement: Vib. Hammer

☐ Piling Removal:

Number: _____ Diameter: _____ inches Method of removal: _____

For Complete Notification you must attach the following:

☒ Project Description: Description of project and construction methods. Provide sufficient detail to demonstrate compliance with the conditions for sound attenuation, sediment containment, whether piling placement is from top of bank or barge and whether measures are proposed to discourage perching.

☒ Resource characteristics: Description of the biological and physical characteristics of the waterway, whether or not sediment is contaminated, and current land use.

☒ Project location map: Sufficient detail to allow person to drive to the site from the nearest city/town or major highway intersection. Show boundaries of the *entire project*.

☒ Project area photo(s): Photo(s) of existing conditions required for all activity areas.

☒ Plan view drawing(s): Include existing and proposed contours, scale, jurisdictional boundaries (ordinary high water line), clear identification of areas proposed for removal or fill, location of cross-section(s).

☒ Cross-section drawing(s): Include existing and proposed piling location, horizontal and vertical scale; jurisdictional boundaries (ordinary high water line); water elevation.

***Note**: Drawings must contain sufficient information to demonstrate compliance with the conditions and eligibility requirements of the applicable General Authorization. Do not use "typical" drawings.*

**Tidal waters are those waters located between highest measured tide and extreme low tide.*

DSL Use Only:
DSL Determination Eligible Date 6/13/2021 RC Initial KB

General Authorization for Piling Placement within ESH
For a Personal Use Dock

5527 River Street, West Linn, OR

Project Description:

This project proposes the construction of a 396 sq. ft. "L"-shaped dock on the Willamette River adjacent to the subject property. An aluminum ramp will provide access to the dock from the adjoining property. The proposed dock is intended for personal use by the owner of the property for recreational boating and general river enjoyment. Three twelve-inch steel piling will be installed at the dock location, along with two 12" shore piling at the joint section of the access ramps. Piling will be installed using a vibratory hammer from a crane barge. The piling will have a cone-shaped cap to deter predatory birds from perching. The dock has been designed to allow the maximum amount of sunlight to penetrate through the decking. To achieve this, we place all float units to the outer edges of the dock to leave the entire center, running the full length, open and unobstructed. The access ramps will be delivered from the water as completed units and will be placed via crane from the river to avoid impacting the stream bank.

Resource Characteristics:

The project site is located on the Willamette River adjacent to 5527 River Street, West Linn, OR. This site is located on the Willamette River below the I-205 bridge at Oregon City. The river is relatively slow-moving in this section and, to our knowledge; there are no unusual contaminants in sediments in this area. The adjacent land uses are rural residences on acreage tracts.

- This waterway fluctuates seasonally based upon rainfall, snow pack and upstream dam operations. Velocities vary with river stage and can vary from 0 ft/sec to over 5 ft/sec. There is no tidal influence at this river mile due to being upstream of Willamette Falls.
- Channel and bank conditions: The bank drops approximately 30 feet in elevation at a grade of about 50% from the building site to a flatter bench above water level.
- Riparian vegetation: The bank near the river is covered with small brush and weeds. No vegetation will be disturbed for this installation. All work is done by barge with a one day installation period.
- Channel morphology: The channel in this stretch of the river is stable, being dominated by bedrock, and there have been only minor changes in the river in recent years.
- Stream substrate: Generally includes gravels on the river bed, with sand, gravel and sediments on the banks.
- Fish and wildlife species and use: The river provides habitat for many varieties of fish, including salmon and steelhead. Herron and other bird species and small mammals are found in this area of the river.

6. Signature

By signing below, I understand:

- The information provided herein is, to the best of my knowledge and belief, true, complete, and accurate.
- I am responsible for complying with the requirements and conditions set forth in the applicable administrative rules for General Authorizations and for Voluntary Habitat Restoration activities.
- This approval does not authorize trespass on the lands of others. The responsible party shall obtain all necessary access permits or rights-of-way before entering lands owned by another.
- If this is state-owned submerged or submersible land, there may be additional easements, royalties and/or other requirements by DSL's Aquatic Resource Management Program.
- This approval does not authorize any work that is not in compliance with local zoning or other local, state or federal regulation pertaining to the operations described herein. The responsible party shall obtain necessary approvals and permits before proceeding under this authorization.
- All work done under this authorization must comply with OAR Chapter 340, Standards of Quality for Public Waters of Oregon.
- When listed species are present, the responsible party must comply with the State Endangered Species Act and the Federal Endangered Species Act.
- Violations of the terms and conditions of this authorization are subject to administrative and/or legal action, which may result in revocation of the approval or damages. The responsible party is responsible for the activities of all contractors or other operators involved in work done at the site or under this approval.
- The Department of State Lands may, at any time, by notice to the responsible party, revoke or modify this approval if it determines the project scope or conditions of the General Authorization are insufficient to minimize individual or cumulative environmental effects in accordance with OAR 141-085.
- Employees of the Department of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this approval.
- In issuing this authorization, the Department of State Lands makes no representation regarding the quality or adequacy of the approved project design, materials, construction, or maintenance except to approve the project's design and materials, as set forth herein, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapter 196 and related administrative rules.
- Responsible person shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the approved improvements.
- When approval from ODFW for Fish Passage is required, written autorization must be received from ODFW prior to ground disturbing activities.
- A permit from the U.S. Army Corps of Engineers may also be required.

Signature		**Date**	5-1-2021

Please mail completed form to DSL at the appropriate regional office for your project location:

DSL – West of the Cascades:
Department of State Lands
775 Summer Street, Suite 100
Salem, OR 97301-1279
Phone: 503-986-5200 Fax: 503-378-4844

OR

DSL - East of the Cascades:
Department of State Lands
1645 NE Forbes Road, Suite 112
Bend, Oregon 97701
Phone: 541-388-6112 Fax: 541-388-6480

INCUMBENCY CERTIFICATE

Ken's Floatation Services, Inc. (entity name as recorded with the Secretary of State, Oregon)

I, Eric Dye , do hereby certify that:

1. I am the duly elected and acting President (position) of Ken's Floatation Services, Inc. (entity name as recorded with the Secretary of State, Oregon), a corporation (entity type) organized and existing in good standing under the laws of the State of Oregon (the "Entity"); and

2. I have the authority to submit, on behalf of the Entity, this application for a permit to conduct removal-fill within waters of the state (as evidenced by my signature on the application) and to commit the Entity to comply with all resulting permit conditions, including any mitigation obligations, resulting from the issuance of the permit.

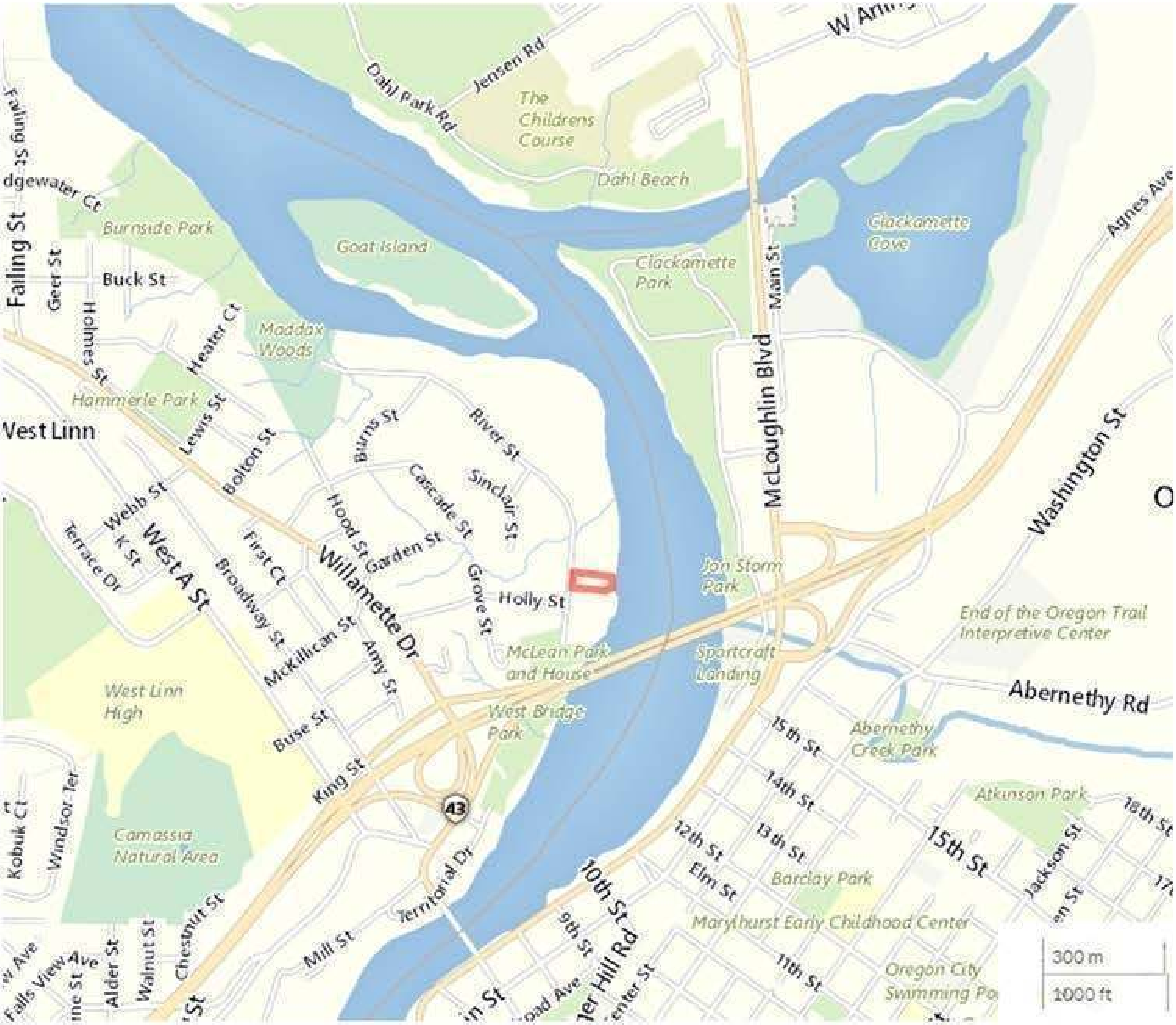
Witness, my signature and the seal of the Entity this 23rd day of Februray , 2021.

Signature

Name: Eric Dye

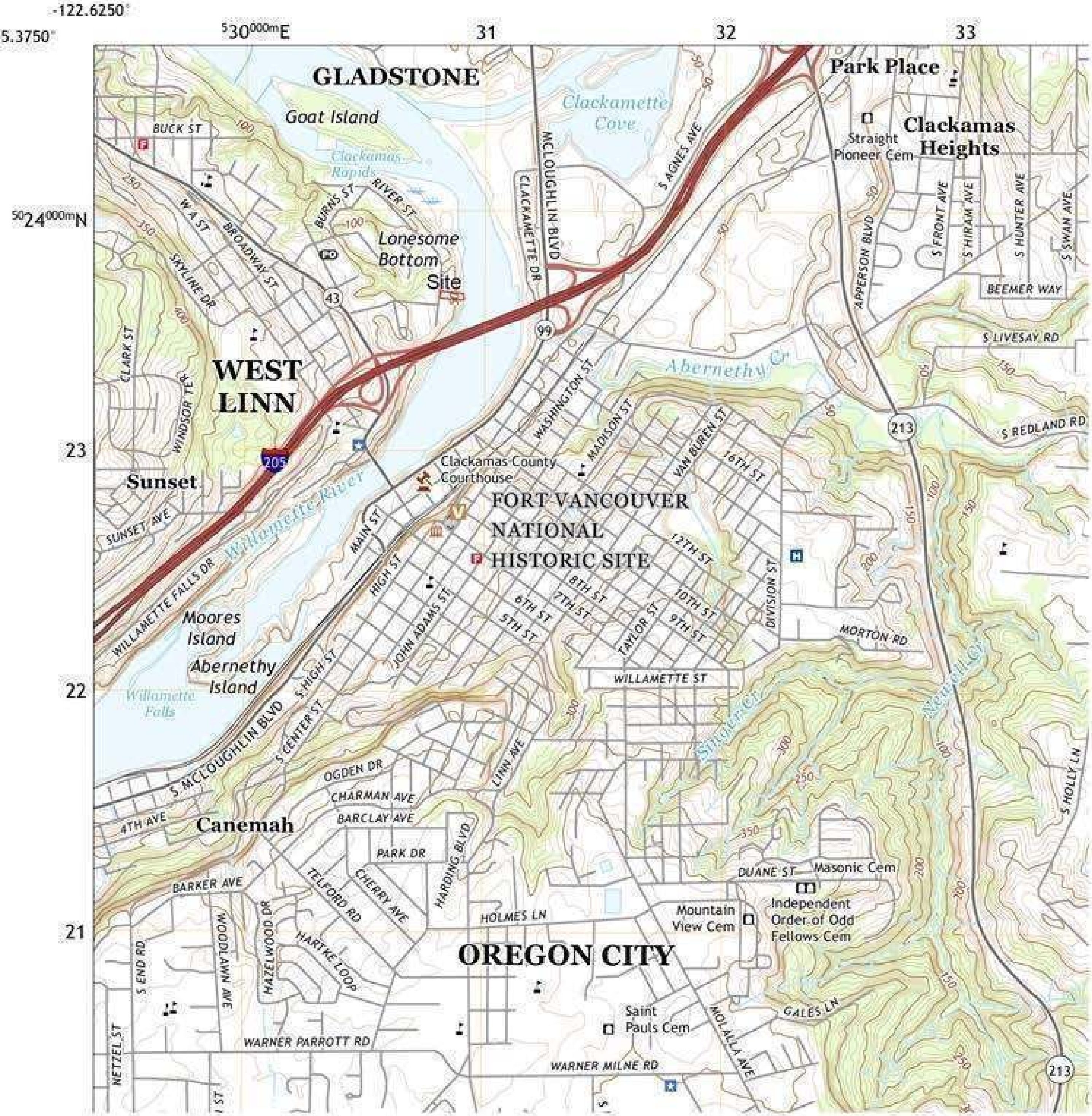
Title: President

Harper Dock Project
5527 River Street, West Linn, OR
Vicinity Map

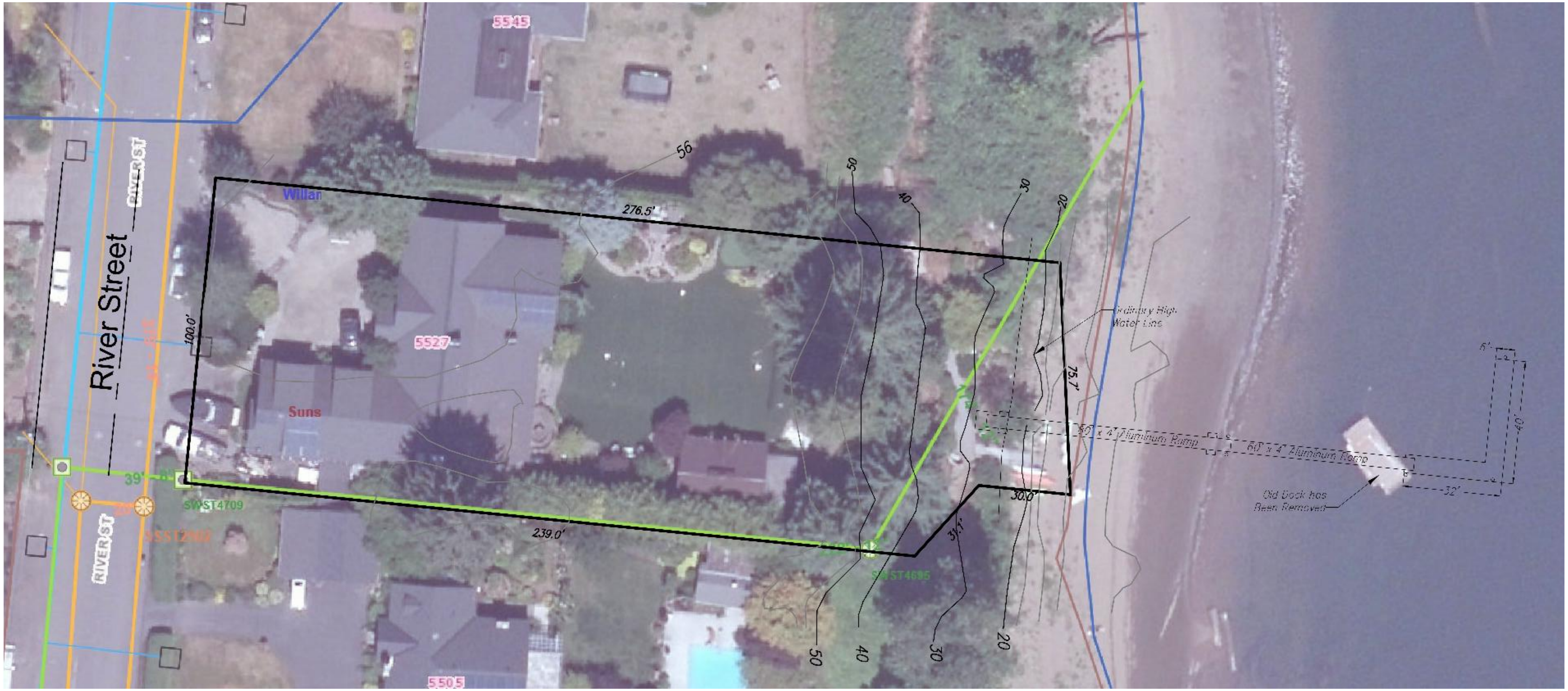


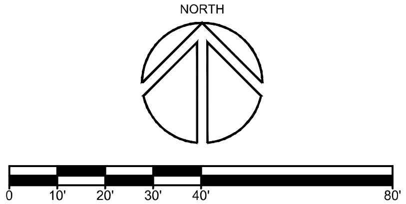
Harper Dock
5527 River St. West Linn, OR

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



2 2 E 30DB
WEST LINN
N.W.1/4 S.E.1/4 SEC.30 T.2S. R.2E. W.M.
CLACKAMAS COUNTY
1" = 100'





Scale: 1" = 40'

SITE PLAN

Richard E. Givens, Planning Consultant
18680 Sunblaze Dr.
Oregon City, Oregon 97045
PH: (503) 479-0097

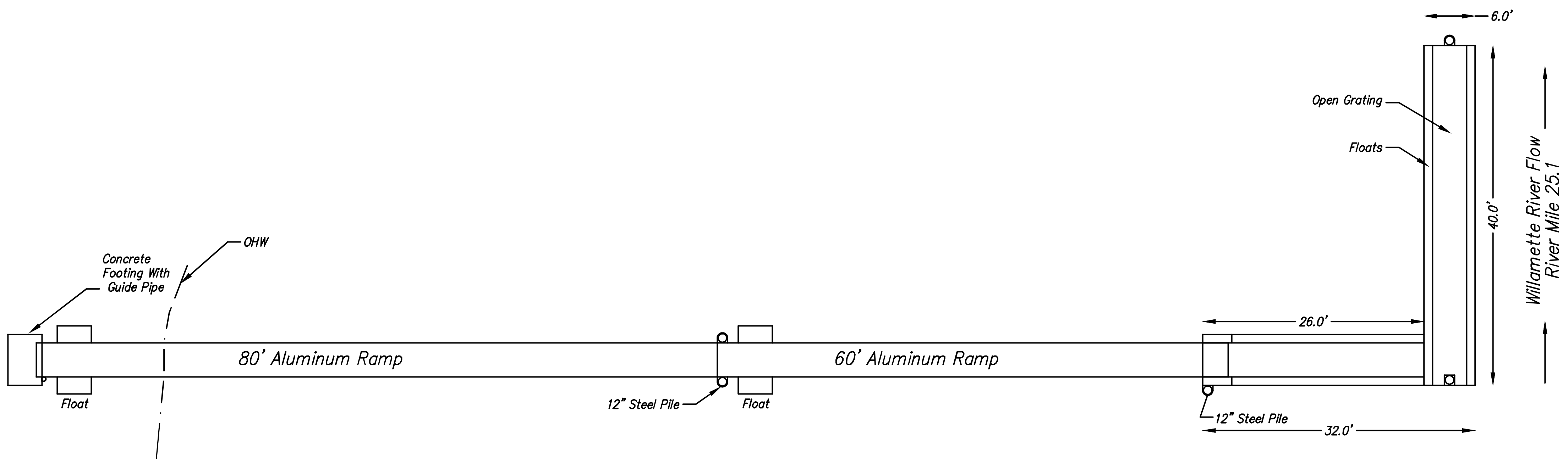
SCALE 1" = 40'
DATE: May 2021
PROJECT 20-DYE-105

HARPER BOAT DOCK

5527 River Street, West Linn, OR 97068
Owner: Kevin Harper, 503-875-8920

Ken's Floatation Services, Inc.

1701 Clackamette Dr., Oregon City, OR 97045
Contact: Eric Dye, President



Deck Area: 396 Sq. Ft.

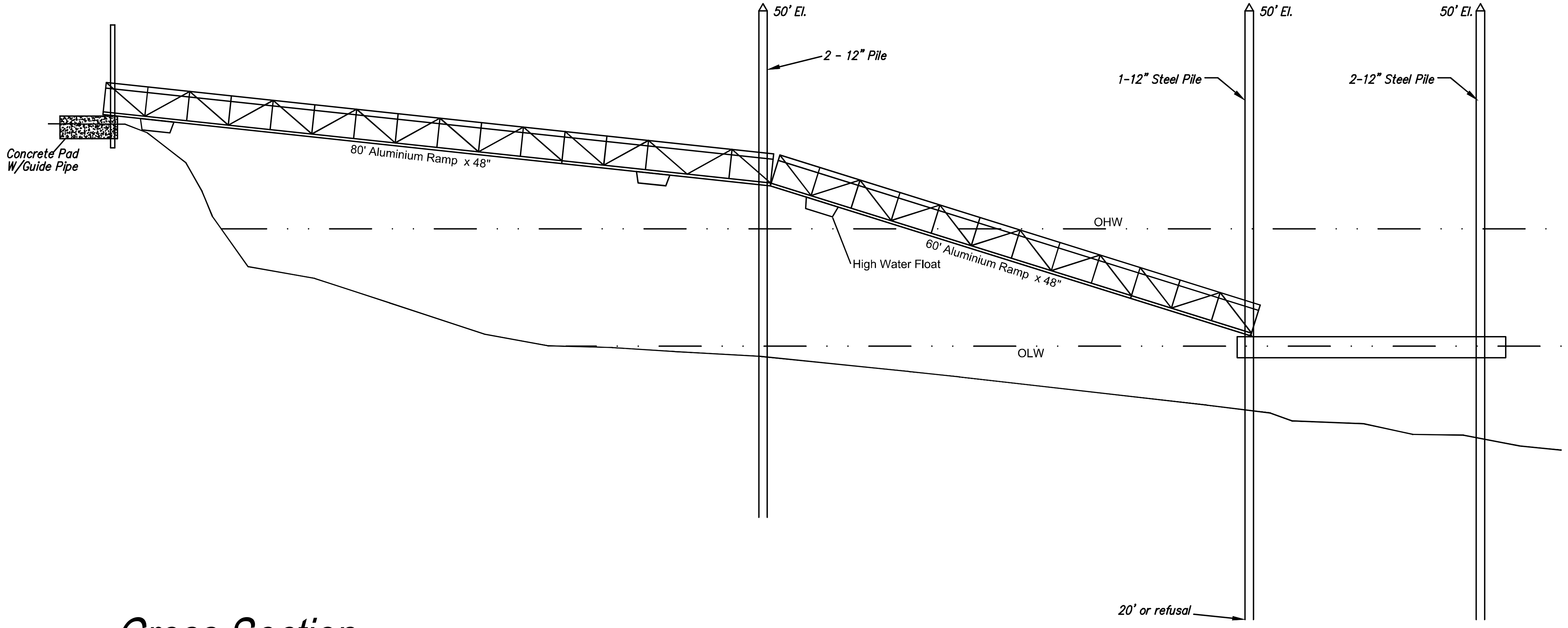
Plan View

Scale: 1" = 16'

Harper Dock Project
5527 River Street, West linn, OR 97068
CLIENT: Kevin Harper & Jaquline Ritchie

SCALE 1" = 16'
DATE: 5-1-2021
PROJECT 20-DYE-106

Ken's Floatation Services, Inc.
1701 Clackamette Dr.
Oregon City, Oregon 97045
PH: (503) 449-6667



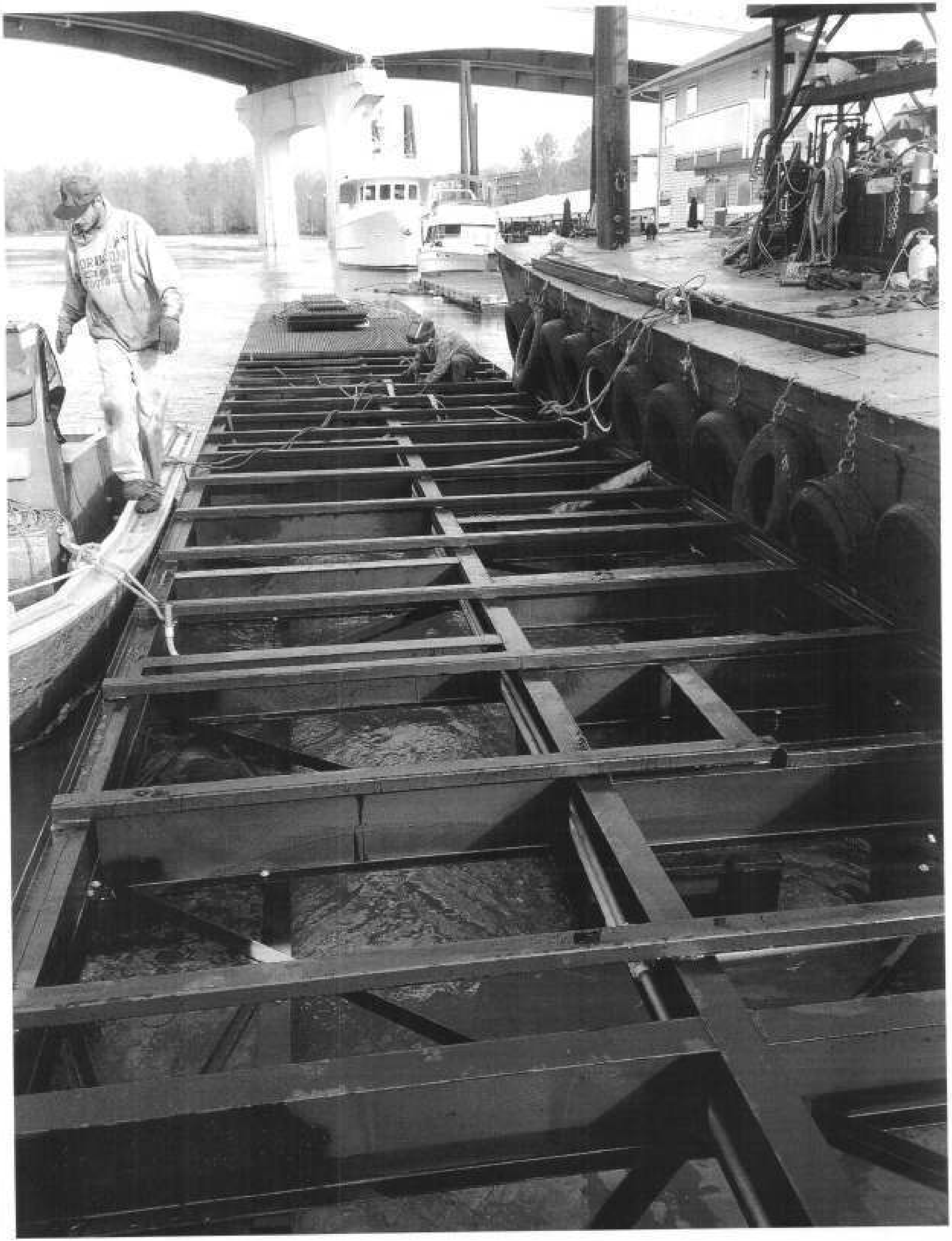
Cross Section

Scale: 1" = 16'

Harper Dock Project
5527 River Street, West linn, OR 97068
CLIENT: Kevin Harper & Jaquline Ritchie

SCALE 1" = 16'
DATE: 5-1-2021
PROJECT 20-DYE-106

Ken's Floatation Services, Inc.
1701 Clackamette Dr.
Oregon City, Oregon 97045
PH: (503) 449-6667



General Authorization Conditions for Piling Placement and Removal within ESH

The following conditions apply to all projects determined to be eligible for this general authorization:

(1) **Responsible Party.** The person listed on the notification as the responsible party is responsible for the activities of all contractors or other operators involved in project work covered by the GA.

(2) **Copy of Approved Notification Available for Inspection**. A copy of the notification approved by the Department must be available at the work site whenever noticed activities are being conducted.

(3) **Site Access Required.** Employees of the Department and all authorized representatives must be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under a notification.

(4) **Archeological Resources.** If any archeological sites, resources or artifacts are discovered during construction, work must immediately cease and the State Historic Preservation Office must be contacted.

(5) **ODFW Fish Passage Requirement.** The noticed activity must meet Oregon Department of Fish and Wildlife requirements for fish passage before the project is started (ORS 509.580 to 509.901 and OAR 635-412-0005 to 0040).

(6) **Hazards to Recreation, Navigation and Fishing.** The activity must be timed so as not to interfere with or create a hazard to recreational and commercial navigation and fishing.

(7) **Work Period in Jurisdictional Areas.** Fill or removal activities below the Ordinary High Water Line must be conducted when recommended by ODFW, unless otherwise coordinated with Oregon Department of Fish and Wildlife and approved in writing by DSL. Work is prohibited when fish eggs are present within the reach where activities are being conducted.

(8) **Pre-Construction Resource Area Fencing or Flagging.** Prior to any site grading, the boundaries of any avoided wetlands, waterways and riparian areas adjacent to the project site must be surrounded by noticeable construction fencing or flagging. There must be no vegetation removal or heavy equipment within marked areas. The marked areas must be maintained during construction of the project and be removed immediately upon project completion.

(9) **Erosion Control Methods.** The following erosion control measures must be installed at the construction site prior to construction and maintained during and after construction to prevent erosion and minimize movement of soil into waters of this state:

  (a) All exposed soils must be stabilized during and after construction in order to prevent erosion and sedimentation;
  (b) Filter bags, sediment fences, sediment traps or catch basins, leave strips or berms, or other measures must be used to prevent movement of soil into waterways and wetlands;

(c) To prevent erosion, use of compost berms, impervious materials or other equally effective methods, must be used to protect soil stockpiled during rain events or when the stockpile site is not moved or reshaped for more than 48 hours;
(d) Unless part of the permanent fill, all construction access points through, and staging areas in, riparian and wetland areas must use removable pads or mats to prevent soil compaction. However, in some wetland areas under dry summer conditions, this requirement may be waived upon approval by DSL. At project completion, disturbed areas with soil exposed by construction activities must be stabilized by mulching and native vegetative plantings/seeding. Sterile grass may be used instead of native vegetation for temporary sediment control if native vegetation is unavailable. If soils are to remain exposed for more than seven days after completion of the permitted work, they must be covered with erosion control pads, mats or similar erosion control devices until vegetative stabilization is installed;
(e) Where vegetation is used for erosion control on slopes steeper than 2:1, tackified seed mulch must be used so the seed does not wash away before germination and rooting;
(f) Dredged or other excavated material must be placed on upland areas having stable slopes and must be prevented from eroding back into waterways and wetlands;
(g) Erosion control measures must be inspected and maintained as necessary to ensure their continued effectiveness until soils become stabilized; and
(h) All erosion control structures must be removed when the project is complete and soils are stabilized and vegetated.

(10) **Hazardous, Toxic, and Waste Material Handling.** Petroleum products, chemicals, fresh cement, sandblasted material and chipped paint, wood treated with leachable preservatives or other deleterious waste materials must not be allowed to enter waters of this state. Machinery refueling is to occur at least 150 feet from waters of this state and confined in a designated area to prevent spillage into waters of this state. Barges must have a containment system to effectively prevent petroleum products or other deleterious material from entering waters of this state. Project-related spills into waters of this state or onto land with a potential to enter waters of this state must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.

(11) **Raising or Redirecting Water.** The project must not cause water to rise or be redirected and result in damage to structures or property.

(12) **Wetlands of Conservation Concern.** The project must not involve impacts to wetlands identified as a wetland type of conservation concern. Wetlands of Conservation Concern are bogs, fens, playas, salt flats, alkaline lakes, hot springs, native wet prairies, vernal pools, inter-dunal wetlands, mature forested wetlands, ultramafic soil wetlands, wooded tidal wetlands, and un-diked tidal wetlands, as determined by the Department.

(13) **Waste Disposal.** Old piling and other waste material discarded by the project must be disposed of in an appropriate disposal facility. There must be no temporary storage of piling or other waste material below top of bank, in any wetland, Federal Emergency Management Administration designated floodway, or an area historically subject to landslides.

(14) **DSL May Halt or Modify.** DSL retains the authority to temporarily halt or modify the project in case of unforeseen damage to natural resources.

(15) **Work Area Isolation.** The work area must be isolated from the water during construction. All structures and materials used to isolate the work area must be removed immediately following construction and water flow returned to pre-construction conditions. All fish must be salvaged from the isolated area in accordance with Oregon Department of Fish and Wildlife requirements.

(16) **Spoil Disposal.** Spoil materials, not used in the project, must be placed in an upland location. Spoil materials used in the project must be included in the cumulative removal-fill calculation for the activity.

(17) **Minimum Necessary**. Number of pilings must be the minimum necessary to fulfill the essential purpose.

(18) **Sound Attenuation**. A vibratory hammer must be used whenever feasible. If an impact hammer must be used to drive or proof steel piles, sound attenuation measures including cushion blocks (wood blocks between pile and hammer) and bubble curtains operated to distribute air bubbles around 100 percent of the piling for the full depth of the water column must be used:

(a) If water velocity is 1.7 miles per hour or less, an unconfined bubble curtain may be used; or
(b) If water velocity is greater than 1.7 miles per hour, a confined bubble curtain (e.g., bubble ring surrounded by fabric or metal sleeve) must be used.

(19) **Method for Removal of Piling**. Removal of piling must be conducted using a vibratory method:

(a) Piling must not intentionally be broken by twisting or bending;
(b) Upon removal, piling must be handled to effectively contain all adhering sediment. All return flows must meet state water quality standards; and
(c) Piling and containment materials must be disposed in an approved upland disposal site.

(20) **Removal Problems in Uncontaminated Sediment.** If wood piling breaks above or below the bed surface within an area of uncontaminated sediment, piling must be cut at least three feet below the bed surface or otherwise pushed into that depth, then covered with a cap of clean substrate.

(21) **Removal Problems in Contaminated Sediment.** If wood piling breaks above the bed surface within an area of known contaminated sediment, piling must be cut at the bed surface or otherwise pushed to that depth. If piling breaks in contaminated sediment below the bed surface, no further attempt at removal may be made and the hole must be covered with a cap of clean substrate.

(22) **Prevent Perching**. Piling must be fitted with devices to effectively prevent perching by fish-eating bird species.

(23) **Barge or Top of Bank Position.** Piling must be placed or removed from a barge-mounted or above top-of-bank position. If barge-mounted, barge must not at any time be grounded in the bed or banks.

State-Owned Waterway Short-Term Access Agreement OAR 141-125-0205

For General Authorization #: 63318-GA

On Waterbody: Willamette River

Responsible Person: Ken's Flotation Services, Inc./Eric Dye

By acting under the referenced General Authorization, the Responsible Person agrees to the following terms and conditions:

The STATE OF OREGON, Department of State Lands, GRANTOR, hereby grants to the Responsible Person of the referenced General Authorization, hereinafter called “GRANTEE”, a Short Term Access Agreement, as described in section #3 “Project Location Information” of the General Authorization Eligibility Verification Form, hereinafter called “**Lands in Use”**.

Which are subject to the following terms and conditions:

1. GRANTOR hereby grants to GRANTEE a *Short Term Access Agreement* upon the **Lands in Use** at any time from the anticipated start and completion times of this project as described in section #4 “Project Information” of the General Authorization Eligibility Verification Form in order to complete the “Activities of this Project” as described in section #5 of the General Authorization Eligibility Verification Form, and further, the GRANTOR does hereby covenant that he is the lawful owner of a sufficient estate in the said **Lands in Use** to enable him to give the permission herein granted and that the said **Lands in Use** are free from any encumbrances which would interfere with the said permission.

2. This *Short Term Access Agreement* includes the right to ingress and egress on other lands of the GRANTOR described above, providing that the GRANTOR is given notification of such ingress and egress and such ingress and egress is approved by the GRANTOR, and provided such ingress and egress is necessary and not otherwise conveniently available to GRANTEE, and a *Short Term Access Agreement* for persons, pipelines, machinery and/or other equipment, over and across said Lands along such routes as may be necessary for the hereinabove stated purpose. Upon request of GRANTOR, GRANTEE shall provide GRANTOR with copies of all work plans (and other documents describing the nature and location of the work), validated analytical data generated by the work, and all final reports summarizing such analytical data and any maintenance and monitoring activities as soon as practicable following their completion and/or issuance.

3. GRANTEE shall comply with all applicable local, state and federal laws and regulations affecting the **Lands in Use** and the use thereof, including local comprehensive land use planning and zoning ordinances, and correct at GRANTEE’S own expense, any failure of compliance created through GRANTEE’S fault or by reason of GRANTEE’S use:

   Dispose of all waste in a legal and proper manner and not allow debris, garbage or other refuse to accumulate within the **Lands in Use**; provided that, if GRANTEE allows debris, garbage or other refuse to accumulate within the **Lands in Use**, State shall have the right to remove the debris, garbage and other refuse, and collect the cost of such removal from GRANTEE;

   Conduct all operations within the **Lands in Use** in a manner that conserves fish and wildlife habitat, protects water quality, and does not contribute to soil erosion or the infestation or spread of noxious weeds;

   And, if applicable; maintain all buildings, docks, pilings, floats, gangways, similar structures, and other improvements located within the **Lands in Use** in a good state of repair; and

   Not unreasonably interfere with the public’s trust rights of commerce, navigation, fishing or recreation.

4. **Submerged/Submersible Only** In addition to any other applicable laws and regulations, GRANTEE shall comply with Oregon Department of Environmental Quality and Oregon State Marine Board requirements for sewage collection and waste water disposal for boats and floating structures.

5. GRANTEE shall not use, store, or dispose of, or allow the use, storage, or disposal within the **Lands in Use** of any materials that may pose a threat to human health or the environment, including without limitation, pollutants, hazardous solid waste, hazardous substances, pesticides, herbicides, or petroleum products (a "Hazardous Substance") except in strict compliance with applicable laws, regulations and manufacturer's instructions and shall take all necessary precautions to protect human health and the environment and to prevent discharge or release of any Hazardous Substance to the environment from the **Lands in Use**.

   GRANTEE shall keep and maintain accurate and complete records of the amount of all such pollutants, hazardous solid waste, hazardous substances, pesticides, herbicides, or petroleum products (a "Hazardous Substance") stored or used on the **Lands in Use**, and shall immediately notify State of any release or threatened release of any such Hazardous Substance to the environment from the **Lands in Use** or otherwise attributable to operations or activities on the **Lands in Use**.

   In the event any pollutants, hazardous solid waste, hazardous substances, pesticides, herbicides, or petroleum products (a "Hazardous Substance") is released, GRANTEE shall promptly and fully remediate such release in accordance with State and federal regulations and requirements. If GRANTEE fails to so remediate, State shall have the right to remove and remediate any release of a Hazardous Substance on the **Lands in Use** or attributable to operations or activities conducted or allowed by GRANTEE on the **Lands in Use** and to collect the cost of such removal or remediation from GRANTEE.

   In addition to any duty to indemnify described elsewhere in this *Short Term Access Agreement*, GRANTEE shall indemnify State against any claim or costs arising from or related to a release of a pollutants, hazardous solid waste, hazardous substances, pesticides, herbicides, or petroleum products (a "Hazardous Substance") on or from the **Lands in Use**.

6. All tools, equipment, and other property belonging to GRANTEE taken upon or placed upon the land by GRANTEE shall remain the property of GRANTEE and may be removed by GRANTEE at any time within a reasonable period after the expiration of this *Short Term Access Agreement*.

7. GRANTEE agrees to defend, indemnify and hold State harmless from and against all claims, demands, actions, suits, judgment, losses, damages, penalties, fines, costs, and expenses (including expert witness fees and costs and attorney's fees in an administrative proceeding, at trial, or on appeal) arising from or attributable, in whole or in part, to the access agreement or any operations conducted or allowed by GRANTEE on the **Lands in Use**. As used in this Section 7.0 only, "State" means the State of Oregon and its boards, commissions, agencies, officers, employees, contractors, and agent.

This *Short Term Access Agreement* may be cancelled by GRANTOR after thirty (30) days written notice to GRANTEE for noncompliance with the above conditions or any lawful requirement.

Department of State Lands

Katie Blauvelt
Authorized Signature

Katie Blauvelt
Printed Name

June 13, 2021
Date

EXHIBIT PD-2: COMPLETENESS LETTER

City of
West Linn

October 19, 2021

Rick Givens
Richard Givens Consulting
18680 Sunblaze Dr.
Oregon City, OR 97045

SUBJECT: WRG-21-04/MISC-21-07 application for installation of a dock at 5527 River Street

Mr. Givens,

The Planning Department has reviewed your submitted materials for a dock at 5527 River Street and finds this application **complete**. The city has 120 days to exhaust all local review; that period ends February 16, 2022.

Please be aware that determination of a complete application does not guarantee a recommendation of approval from staff for your proposal as submitted – it signals that staff believes you have provided the necessary information for the Planning Director to render a decision on your proposal.

Please contact me at 503-742-6058, or by email at jfloyd@westlinnoregon.gov if you have any questions or comments.

Sincerely,

John Floyd
Associate Planner

EXHIBIT PD-3: PUBLIC COMMENTS

John Floyd

Associate Planner City Hall

22500 Salamo Rd. West Linn Oregon.

John Floyd,

I was happy to see a notice of proposed land use on the home on 5527 River Steet in West Linn Oregon. I am not concerned about the proposed dock being istalled under a permit and appropriate contractor. I **am** concerned about the existing cement block stair case that was installed at this property, maybe 5 or so years ago. With this notice I found a way to voice my concerns so I am thankful that I figured out who to express my concerns to someone who hopefully can do something about it.

I frequently fish off my boat on the river near that property and when I saw those stairs installed I was shocked it was allowed, but I suspect it was not a permitted construction. It looks like a ginorous errosion concern, its a huge cement block! If Kevin Harper has the money to install a dock properly, he should have paid to have that stair case installed properly and safe for the river too.

Maybe a related issue maybe not. There are also several abandoned old docks stuck up on the shore. One near this house and one up stream maybe 5 houses. I don't know who the owner of either dock is and it may not be this property owner's. It would be nice if the city or who ever oversees these matters along the river would keep the river from being used as a dump for old docks. I see too much of foam and plastic from old docks in the river, and I know the fish are eatting it, so I am eatting it too. You would think people who live on the river would want to keep the river healthy and clean, but I guess not.

I ask the authorities in this dock permitting to check out that staircase and make sure it was permitted and it is not damaging to the river or have it safely removed. I would also in general like to see abandoned broken docks taken away and not left on the river. The things placed upon the river effect more of the river than just the riverfront weathly elite's fun time. It effects the fish, the beavers, the birds, the plant life, and us other citizens who collectively own the river.

Thanks for your audience,

Alex, West Linn resident and Willamette River fisherman

PORTLAND OR 972
9 NOV 2021 PM 3 L

John Flyod
Associate Planner | City Hall
22500 Salamo rd
West Linn Oregon

97068-827099

EXHIBIT PD-4: AFFIDAVIT AND NOTICE PACKET

CITY OF West Linn

AFFIDAVIT OF NOTICE
Type A

We, the undersigned do hereby certify that, in the interest of the party (parties) initiating a proposed land use, the following took place on the dates indicated below:

PROJECT

File No.: WRG-21-04 / MISC-21-07 Applicant's Name: Rick Givens & Kevin Harper
Development Name: A New Private Dock Access Ramp at 5527 River Street
Scheduled Decision Date: Planning Manager Decision No Earlier Than November 18, 2021

MAILED NOTICE

Notices were mailed at least 20 days prior to the scheduled hearing date per Section 99.080 of the Community Development Code to:

1	**Kevin Harper, applicant**	**10/28/21**	Lynn Schroder
2	**Rick Givens, applicant's agent**	**10/28/21**	Lynn Schroder
3	**Property owners of record within 500 feet**	**10/28/21**	Lynn Schroder
4	**Bolton Neighborhood Association**	**10/28/21**	Lynn Schroder
5	**Oregon Dept of Fish & Wildlife**	**10/28/21**	Lynn Schroder
6	**Oregon Division of State Lands**	**10/28/21**	Lynn Schroder
7	**US Army Corps of Engineers**	**10/28/21**	Lynn Schroder

WEBSITE

Notice was posted on the City's website at least 20 days prior to the scheduled hearing date.

10/28/21	Lynn Schroder

SIGN

At least 10 days prior to the schedule hearing, a sign was posted on the property per Section 99.080 of the Community Development Code.

10/28/21	John Floyd

FINAL DECISION notice mailed to applicant, parties with standing, and, if zone change, the County surveyor's office per Section 99.040 of the Community Development Code.

2/4/22	Lynn Schroder

CITY OF WEST LINN
NOTICE OF UPCOMING PLANNING MANAGER DECISION
FILE NO. WRG-21-04 / MISC-21-07

The West Linn Planning Manager is considering WRG-21-04/MIS-21-07, an application to approve a Willamette River Greenway Permit and Flood Management Area Permit for a new private dock and access ramp at 5527 River Street (Assessors Tax Lot Number 22E30DB00700).

The Planning Manager will decide the application based on criteria in Chapters 11, 27, 28, and 99 of the Community Development Code (CDC). The approval criteria from the CDC are available for review on the City website http://www.westlinnoregon.gov/cdc or at City Hall and the City Library.

The application is posted on the City's website, https://westlinnoregon.gov/planning/5527-river-road-willamette-river-greenway-and-flood-management-area-permits-construct-new. Alternatively, the application, all documents or evidence relied upon by the applicant and applicable criteria are available for inspection at City Hall at no cost. Copies may be obtained at reasonable cost.

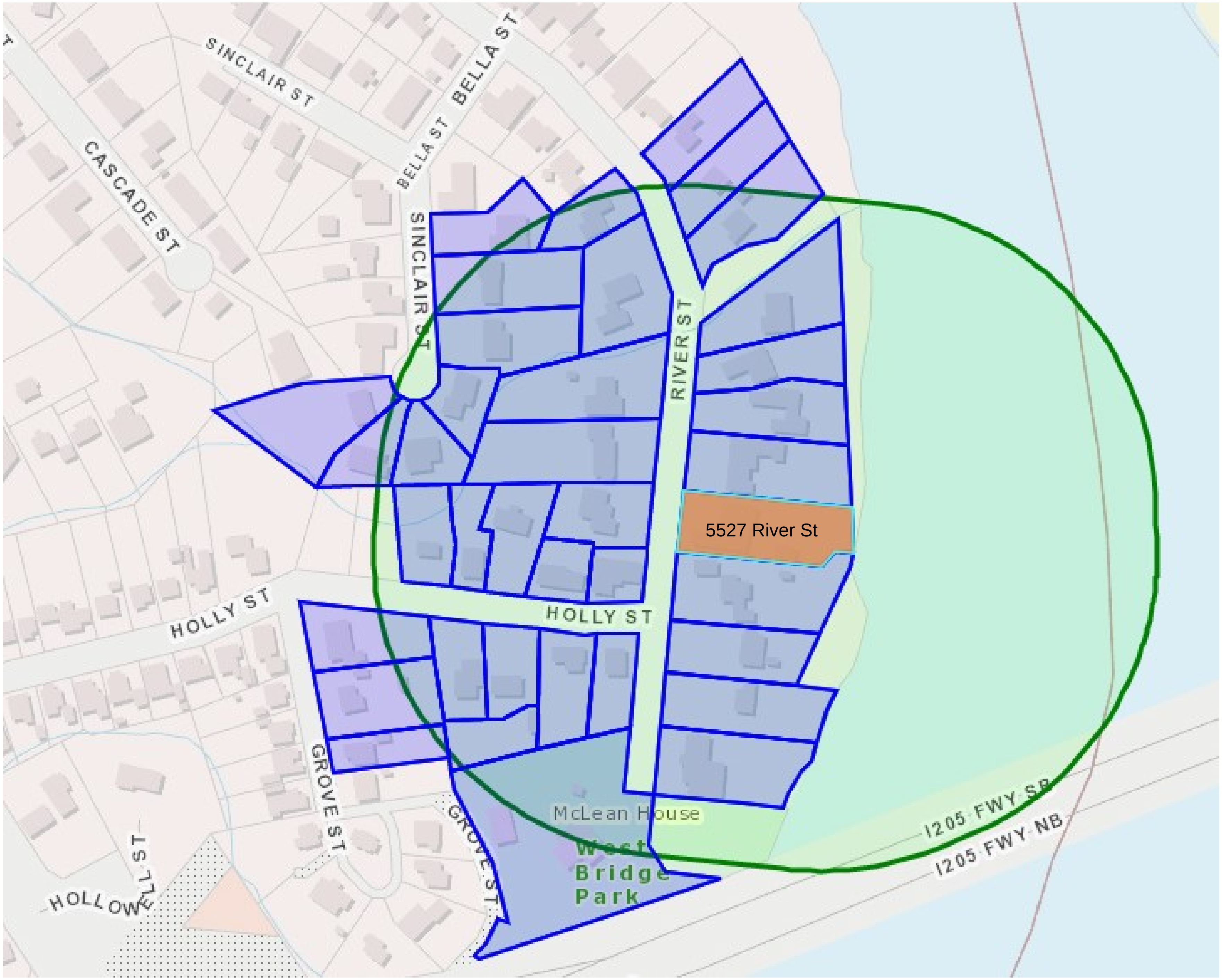
A public hearing will not be held for this decision. **Anyone wishing to submit comments for consideration shall submit all material before 4:00 p.m. on November 18th to jfloyd@westlinnoregon.com or mail them to City Hall. All comments must be received by the deadline.**

It is important to submit all testimony in response to this notice. All comments submitted for consideration of this appeal should relate specifically to the applicable criteria. Failure to raise an issue in a hearing, in person, or by letter, or failure to provide sufficient specificity to afford the decision-maker an opportunity to respond to the issue, precludes appeal to the Oregon Land Use Board of Appeals based on that issue.

The final decision will be posted on the website and available at City Hall. Persons with party status may appeal the decision by submitting an appeal application to the Planning Department within 14 days of mailing the notice of the final decision pursuant to CDC 99.240.

Contact John Floyd, Associate Planner, City Hall, 22500 Salamo Rd., West Linn, OR 97068, (503) 742-6058 for additional information.

WRG-21-04/MISC-21-07 Properties within 500 feet of 5527 River Street



CITY OF West Linn

COMMUNITY DEVELOPMENT

NOTICE OF UPCOMING PLANNING MANAGER DECISION

PROJECT # MISC-19-07

MAIL: 10/14/2019   TIDINGS: N/A

CITIZEN CONTACT INFORMATION

To lessen the bulk of agenda packets and land use application notice, and to address the concerns of some City residents about testimony contact information and online application packets containing their names and addresses as a reflection of the mailing notice area, this sheet substitutes for the photocopy of the testimony forms and/or mailing labels. A copy is available upon request.