



1510 - B Third Street  
Tillamook, Oregon 97141  
[www.tillamookcounty.gov](http://www.tillamookcounty.gov)  
(503) 842 - 3408

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*Land of Cheese, Trees and Ocean Breeze*

**FLOODWAY DEVELOPMENT PERMIT #851-24-00640-PLNG  
BRUNS**

*NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER:  
ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE,  
IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER*

November 5, 2025

Dear Property Owner:

This is to confirm that the Tillamook County Department of Community Development **APPROVED WITH CONDITIONS** the above-cited requests on November 5, 2025. A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: <https://www.tillamookcounty.gov/commdev/landuseapps> and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

**Appeal of this decision.** This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. Forms and fees must be filed in the office of this Department before **4:00pm on November 17, 2025**. This decision will become final on November 17, 2025 after 4:00pm unless an appeal is filed in accordance with Tillamook County Land Use Ordinance Article X.

**Request:** A review of a Floodway Development Permit for the placement of a proposed single-family dwelling near the Nehalem River.

**Location:** The subject property is accessed via a private easement access from Highway 53, a state highway, and is designated as Tax Lot 1704, of Section 25 of Township 3 North, Range 10 West of the Willamette Meridian, Tillamook County, Oregon.

**Zone:** Rural Residential 2-Acre (RR-2) Zone

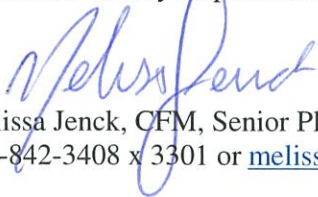
**Applicant/  
Property Owner:** Jacob & Kayleen Bruns, 27150 Elk Trail Dr, Nehalem, OR 97131

## CONDITIONS OF APPROVAL

1. The applicant/property owner shall obtain all required Federal, State, and Local permits and/or licenses and will comply with applicable rules and regulations.
2. All applicable permits, including a consolidated Zoning and Building Permit from the Tillamook County Department of Community Development shall be obtained prior to construction the proposed dwelling.
3. A minimum 50-foot riparian setback from the Nestucca River, determined by the Oregon Department of Fish and Wildlife (ODFW) and measured in accordance with TCLUO Section 4.140, shall be maintained on the subject property for the proposed improvement. Future development on the subject property shall also maintain the required riparian setback and comply with the requirements of TCLUO 4.140: Development Requirements for Water Quality and Streambank Stabilization.
4. The applicant/property owner shall submit a site plan drawn to scale that confirms all required setbacks are met. The site plan shall be submitted to the Department of Community Development at the time of consolidated Zoning and Building Permit application submittal.
5. The applicant/property owner shall obtain a water availability letter from the Oregon Water Resources Department and a fire letter from the Nehalem Fire and Rescue District. Letters shall be submitted to the Department of Community Development at the time of consolidated Zoning and Building Permit application submittal.
6. The applicant/property owner shall obtain approval for onsite sanitation with the Tillamook County Onsite Wastewater Division for the development of the proposed dwelling. The approval shall be submitted to the Department at time of Consolidated Zoning and Building permit submittal.
7. Development shall comply with the applicable standards of TCLUO Section 3.010, 'Rural Residential 2-Acre (RR-2) Zone' and TCLUO Section 3.106, 'Estuary Conservation 1 (EC1) Zone'.
8. The applicant/property owner shall comply with all 'Zone AE' and 'Floodway' flood hazard construction standards per FEMA requirements. All construction shall adhere to the standards for a residential structure in the 'AE' flood zone per TCLUO Section '3.510'. This shall be reviewed and verified by this Department during the Building Permit process.
9. The dwelling shall comply with all Building Code requirements for Anchoring, Construction Materials and Methods, and Utilities for residential structure located in the 'AE' and Floodway flood zones.
10. Owner/Applicant shall submit a 'Post-Elevation' certificate completed by a registered surveyor and provided on the current FEMA form prior to receiving Certificate of Occupancy for the dwelling.
11. This approval shall be void on November 5, 2027, unless construction of approved plans has begun, or an extension is requested from, and approved by this Department.

Sincerely,

Tillamook County Department of Community Development



Melissa Jenck, CFM, Senior Planner  
503-842-3408 x 3301 or [melissa.jenck@tillamookcounty.gov](mailto:melissa.jenck@tillamookcounty.gov)

Sarah Absher, CFM, Director

Enc.: Vicinity, Assessor's and Zoning maps





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**FLOODWAY DEVELOPMENT PERMIT #851-24-000640-PLNG  
BRUNS**

**ADMINISTRATIVE DECISION & STAFF REPORT**

**Decision Date: November 5, 2025**

**Decision: APPROVED WITH CONDITIONS**  
**(This is not Building or Placement Permit Approval)**

**Report Prepared by: Melissa Jenck, CFM, Senior Planner**

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**I. GENERAL INFORMATION:**

**Request:** A review of a Floodway Development Permit for the placement of a proposed single-family dwelling near the Nehalem River.

**Location:** The subject property is accessed via a private easement access from Highway 53, a state highway, and is designated as Tax Lot 1704, of Section 25 of Township 3 North, Range 10 West of the Willamette Meridian, Tillamook County, Oregon.

**Zone:** Rural Residential 2-Acre (RR-2) Zone

**Applicant/  
Property Owner:** Jacob & Kayleen Bruns, 27150 Elk Trail Dr, Nehalem, OR 97131

**Proposal Description:** The subject property encompasses 2.09 acres, is currently improved with an existing RV placement and onsite sanitation system, abuts the Nehalem River to the east, and is accessed via a private access easement from Highway 53, a state highway (Exhibit A). The topography at the location is fairly flat with minor slope change as the property approaches the Nehalem River according to County LIDAR data (Exhibits A and B). The Nehalem River is zoned Estuary Conservation 1 (EC1) up to the more landward of Mean Higher High Water or the Line of Non-Aquatic Vegetation (Exhibit A). No wetlands or geologic hazards are mapped on the subject property within the proposed development (Exhibit B).

As indicated on FEMA FIRM 41057C0230F dated September 28, 2018, the subject property is located entirely in an 'AE' Area of Special Flood Hazard and entirely in the Floodway of the Nestucca River

(Exhibit A). Staff find that the proposed dwelling is subject to the standards and criteria of TCLUO Section 3.510, Flood Hazard Overlay’ which are addressed below.

Currently, the application is a Floodplain Development Permit approval for the placement of a dwelling, adjacent to the Nehalem River (Exhibit B). The criteria and standards for each of these reviews are addressed below in this Staff Report.

## **II. APPLICABLE ORDINANCE AND COMPREHENSIVE PLAN PROVISIONS:**

The desired use is governed through the following Sections of the Tillamook County Land Use Ordinance (TCLUO). The suitability of the proposed use, in light of these criteria, is discussed in Section III of this report:

- A. TCLUO Section 3.010, ‘Rural Residential 2-Acre (RR-2) Zone’
- B. TCLUO Section 3.106, ‘Estuary Conservation 1(EC1) Zone’
- C. TCLUO Section 3.510, ‘Flood Hazard Overlay (FH) Zone’
- D. TCLUO Section 4.140, ‘Requirements for Protection of Water Quality and Streambank Stabilization’

## **III. ANALYSIS**

The subject project is located within the regulatory floodway and is subject to a Type II review per TCLUO Article X: Development Approval Procedures. TCLUO Section 10.070 requires notification of Type II applications to be mailed to landowners within 250 feet of the subject properties, to allow at least 14 days for written comment and requires staff to consider comments received in making the decision.

**Findings:** Notice of the request was mailed to property owners and agencies on October 10, 2025. Staff find that notification requirements have been met. Comments were received from the Oregon Department of Fish and Wildlife (ODFW) and Tillamook County Public Works and are included as “Exhibit C”.

### **A. TCLUO Section 3.010, ‘Rural Residential 2-Acre (RR-2) Zone’**

*PURPOSE: The purpose of the RR zone is to provide for the creation and use of small- acreage residential homesites. Land that is suitable for Rural Residential use has limited value for farm or forest use; it is physically capable of having homesites on parcels of five acres or less; and it can be utilized for residential purposes without constraining the use of surrounding resource-zoned properties for resource-production purposes.*

TCLUO Section 3.010(2)(a), ‘Uses Permitted Outright’, lists *Single-family* dwelling as a use permitted outright in the RR-2 zone subject to applicable supplementary regulations contained in ordinance.

**Findings:** Applicant is proposing to site a single-family dwelling in the Rural Residential 2-Acre (RR-2) zone (Exhibit B). Staff find that the proposed use is allowed outright in the RR-2 zone subject to applicable standards. Staff finds that Applicant will be required to demonstrate compliance with other applicable standards, such as parking, height, and yard setback requirements, at the time of applying for consolidated zoning/building permit approval.

### **B. TCLUO Section 3.106, ‘Estuary Conservation 1 (EC1) Zone’**

The estuary boundary and zones are defined in TCLUO Section 3.100 as “*ESTUARY ZONES shall be applied to all estuarine waters, intertidal areas, submerged and submersible lands and*



*tidal wetlands up to the line of non-aquatic vegetation or the Mean Higher High Water (MHHW) line, whichever is most landward."*

**Findings:** Applicant is proposing to construct a single-family dwelling (Exhibit B). A site plan was included in 'Exhibit B', which demonstrates that the proposed siting location exceeds the 50-foot setback requirement of TCLUO Section 4.140. A comment was received from Robert Bradley, Oregon Department of Fish and Wildlife, expresses concerns for placement of concrete, stairs, and other development which would not meet the 50-foot riparian setback (Exhibit C). The site plan indicates that the proposed siting location of the dwelling is landward of the Mean Higher High water (MHHW) and the line of non-aquatic vegetation.

Staff finds that the proposed development is located outside the Estuary Conservation 1 (EC1) zone, as it is located landward of the estuary boundary. Staff find the Applicant will be required to demonstrate compliance with such standards for any future development on the site subject to the EC1 boundary at time of consolidated zoning/building permit approval.

### **C. TCLUO Section 3.510 'Flood Hazard (FH) Overlay'**

*(5) GENERAL STANDARDS: In all areas of special flood hazards the following standards are required:*

...

#### **ANCHORING**

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

*(c) All manufactured dwellings must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (See FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for techniques). A certificate signed by a registered architect or engineer which certifies that the anchoring system is in conformance with FEMA regulations shall be submitted prior to final inspection approval.*

#### **CONSTRUCTION MATERIALS AND METHODS**

*(d) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.*

*(e) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.*

*(f) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be elevated to prevent water from entering or accumulating within the components during conditions of flooding. In Flood Zones A, A1-A30, AE, V, V1-V30 or VE, such facilities shall be elevated three feet above base flood elevation. In Flood Zone AO, such facilities shall be elevated above the highest grade adjacent to the building, a minimum of one foot above the depth number specified on the FIRM (at least two feet above the highest adjacent grade if no depth number is specified).*

#### **UTILITIES**

*(g) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood water into the system.*

*(h) 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.*



*(i) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding, consistent with Oregon Department of Environmental Quality (DEQ) standards.*

**Findings:** Applicant has provided a site plan and building plans which indicate foundation design improvements to site structure to prevent flotation and lateral movement, along with a floor plan indicating the utilization of space subject to flood waters (Exhibit B). An Elevation Certificate prepared by Erick White of Onion Peak Design dated July 14, 2025, details the location of the lowest machinery or equipment of the building, including proposed lowest floor heights (Exhibit B). Floor plans and foundation design provided confirm improvements, living space, utilities and machinery located on the next higher floor of the proposed dwelling (Exhibit B). Staff find that these standards can be met through compliance with Conditions of Approval.

...

*(6) SPECIFIC STANDARDS FOR A ZONES (A, AE or AI-A30): In all areas of special flood hazards where base flood data has been provided as set forth in Section 3.510(2) or other base flood data are utilized, the following provisions are required:*

#### **RESIDENTIAL CONSTRUCTION**

*(a) New construction and substantial improvement of any residential structure, including manufactured dwellings, shall have the lowest floor, including basement, at a minimum of three feet above base flood elevation.*

*(b) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or must meet or exceed the following minimum criteria:*

*(1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.*

*(2) The bottom of all openings shall be no higher than one foot above grade.*

*(3) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.*

**Findings:** The proposed area of development is located in an AE Area of Special Flood Hazard as indicated on FEMA FIRM 41057C0230F dated September 28, 2018 (Exhibit A). Applicants are proposing to develop a dwelling on the site (Exhibit B).

Applicants provided a pre-construction elevation certificate prepared by Erick White of Onion Peak Design, a licensed professional surveyor, for the proposed residential development. The proposed design includes a main floor level at 22.7-feet NAVD (Exhibit B). Eric White stated Base Flood Elevation (BFE) for the subject property is 18.7-feet NAVD (Exhibit A). The bottom floor of the proposed dwelling is to be maintained as a crawlspace and is proposed to be located at 16.5-feet NAVD (Exhibit B). The next higher floor, which is indicated to maintain the proposed living space of the dwelling, is located at 22.7-feet NAVD 88, which exceeds 3-feet above BFE (Exhibit B). Applicant has provided foundation plans which indicate the location of multiple vents, with the Elevation Certificate confirming adequate net area of openings provided by the vents for the enclosed bottom floor (Exhibit B). Staff find that the proposed development complies with the standards of TCLUO 3.510(6).

*(9) SPECIFIC STANDARDS FOR FLOODWAYS: Located within areas of special flood hazard established in Section 3.510(2) are areas designated as regulatory floodways. Since the floodway*



*is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:*

*(a) Encroachments in the regulatory floodway including fill, new construction, substantial improvements and other development are prohibited unless certification is provided by a professional registered civil engineer demonstrating through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that such encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.*

*(b) If Subsection 8(a) is satisfied, all new construction and substantial improvement shall comply with all applicable flood hazard reduction provisions of Section 3.510(5) and (6).*

*(c) If hydrologic and hydraulic analysis indicates an increase in flood levels, the Applicant shall obtain a Conditional Letter of Map Revision (CLOMR) from FEMA before any encroachment, including fill, new construction, substantial improvement, or other development, in the regulatory floodway is permitted. Upon completion of the project, but no later than six months after project completion, a Letter of Map Revision (LOMR) shall be submitted to FEMA to reflect the changes on the FIRM and/or Flood Insurance Study. A LOMR is required only when the CLOMR documents an increase in flood levels during the occurrence of the base flood or where post-development conditions do not reflect what was proposed on the CLOMR.*

**Findings:** The Applicant retained WEST Consultants to complete the no-rise analysis required for development within the regulatory floodway (Exhibit B). The analysis was performed for the dwelling, fill for structure placement, fence and propane tank improvements (Exhibit B). The analysis confirms that the proposed encroachments into the regulatory floodway will not result in any increase in flood levels (Exhibit B).

Staff find that these standards have been met.

*(14) DEVELOPMENT PERMIT PROCEDURES: A development permit shall be obtained before construction or development begins within any area of special flood hazard zone. The permit shall be for all structures including manufactured dwellings, and for all development including fill and other development activities, as set forth in the Definitions contained in this Section of the Land Use Ordinance.*

*(a) Application for a development permit shall be made on forms furnished by the Community Development Director and shall include but not necessarily be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information in 3.510(14)(a)(1)–(4) is required and Development Permits required under this Section are subject to the Review Criteria put forth in Section 3.510(14)(b):*

*(1) Elevation in relation to a specific datum of the lowest floor, including basement, of all structures as documented on an Elevation Certificate;*

*(2) Elevation in relation to a specific datum to which any proposed structure will be floodproofed as documented on an Elevation Certificate;*

*(3) If applicable, certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Subsection (6)(c)(3) of this Section; and*

*(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.*

*(b) Development Permit Review Criteria*

*(1) The fill is not within a Coastal High Hazard Area.*

**Findings:** Staff find the proposed location is within a FEMA 'AE' Flood zone and is therefore not located within a Coastal High Hazard Area (Exhibit B). Staff find this criterion is met.

*(2) Fill placed within the Regulatory Floodway shall not result in any increase in flood levels during the occurrence of the base flood discharge.*

*(3) The fill is necessary for an approved use on the property.*

*(4) The fill is the minimum amount necessary to achieve the approved use.*

**Findings:** The Applicant retained WEST Consultants to complete the no-rise analysis required for development within the regulatory floodway (Exhibit B). The analysis confirms that the proposed encroachments into the regulatory floodway will not result in any increase in flood levels (Exhibit B). The proposed activity is for the placement of a dwelling on the subject property (Exhibit B). No additional fill outside the proposed structure and site improvements have been designated on the application submittal (Exhibit B). Staff find these criteria are met.

*(5) No feasible alternative upland locations exist on the property.*

**Findings:** The subject property is entirely located within the FEMA 'AE' Flood zone boundary and entirely within the Floodway (Exhibit A). No upland location exists on the subject property which would remove future development from the regulatory floodplain (Exhibit B). Staff find this criterion is met.

*(6) The fill does not impede or alter drainage or the flow of floodwaters.*

**Findings:** The Applicant retained WEST Consultants to complete the no-rise analysis required for development within the regulatory floodway (Exhibit B). The analysis confirms that the proposed encroachments into the regulatory floodway will not result in any increase in flood levels or surface elevations anywhere in the model (Exhibit B). Staff find this criterion is met.

*(7) If the proposal is for a new critical facility, no feasible alternative site is available.*

*(8) For creation of new, and modification of, Flood Refuge Platforms, the following apply, in addition to (14)(a)(1-4) and (b)(1-5):*

*i. The fill is not within a floodway, wetland, riparian area or other sensitive area regulated by the Tillamook County Land Use Ordinance.*

*ii. The property is actively used for livestock and/or farm purposes,*

*iii. Maximum platform size = 10 sq ft of platform surface per acre of pasture in use, or 30 sq ft per animal, with a 10-ft wide buffer around the outside of the platform,*

*iv. Platform surface shall be at least 1 ft above base flood elevation,*

*v. Slope of fill shall be no steeper than 1.5 horizontal to 1 vertical,*

*vi. Slope shall be constructed and/or fenced in a manner so as to prevent and avoid erosion.*

**Findings:** The Applicant has proposed the siting of a single-family residential structure on the subject property (Exhibit B). Staff find the proposed improvement is neither a critical facility as defined in TCLUO Section 3.510(4) or a Flood Refuge Platform. Staff find these criteria are met.



*Conditions of approval may require that if the fill is found to not meet criterion (5), the fill shall be removed or, where reasonable and practical, appropriate mitigation measures shall be required of the property owner. Such measures shall be verified by a certified engineer or hydrologist that the mitigation measures will not result in a net rise in floodwaters and be in coordination with applicable state, federal and local agencies, including the Oregon Department of Fish and Wildlife.*

**Findings:** Applicant submitted the required information on forms provided by the Community Development Department and as attachments thereto (Exhibit B). The entire property is located in an AE Area of Special Flood Hazard and in the Floodway of the Nehalem River and no alternative upland location exists (Exhibits A and B). WEST Consultants. provided a no-rise analysis certifying that the proposed dwelling will not create a rise in flood levels (Exhibit B). Staff find that these criteria are met.

**D. TCLUO Section 4.140, ‘Requirements for Protection of Water Quality and Streambank Stabilization’**

*(1) The following areas of riparian vegetation are defined:*

*(a) Fifty (50) feet from lakes and reservoirs of one acre or more, estuaries, and the main stems of the following rivers where the river channel is more than 15 feet in width; Nestucca, Little Nestucca, Three Rivers, Tillamook, Trask, Wilson, Kilchis, Miami, Nehalem and North and South Fork Nehalem River.*

*...*

*For estuaries, all measurements are horizontal and perpendicular from the mean high water line or the line of non-aquatic vegetation, whichever is most landward. Setbacks for rivers, streams, and coastal lakes shall be measured horizontal and perpendicular from the ordinary high water line.*

**Findings:** The subject property abuts the Nehalem River, which defines the riparian area as 50-feet. Applicants are proposing to setback the proposed dwelling to be sited at a 50-foot riparian setback, as identified on the attached site plan (Exhibit B). Robert Bradley, ODFW, provided comments contained in ‘Exhibit C’ detailing concern that proposed development complies with the 50-ft setback, and that improvements may remove trees and vegetation within the 50-ft riparian area (Exhibit C). Staff find plans accurately depict that proposed development is to be sited 50-feet from the riparian area and no plans identify the removal of existing trees within this area.

Staff find that these requirements can be met through compliance with Conditions of Approval.

**V. DECISION: APPROVED WITH CONDITIONS**

Based on the findings shown above, Staff concludes that the Applicant has satisfied the review criteria, and can meet all applicable ordinance requirements at the time of application. Therefore, the Department approves Floodplain Development Permit 851-24-000640-PLNG subject to the Conditions of Approval in section VI of this report.

**Appeal of this decision.** This decision may be appealed to the Tillamook County Planning Commission, who will hold a public hearing. The forms and fees must be filed in the office of this Department before **4:00 PM on November 17, 2025.**

## **VI. CONDITIONS OF APPROVAL:**

1. The applicant/property owner shall obtain all required Federal, State, and Local permits and/or licenses and will comply with applicable rules and regulations.
2. All applicable permits, including a consolidated Zoning and Building Permit from the Tillamook County Department of Community Development shall be obtained prior to construction the proposed dwelling.
3. A minimum 50-foot riparian setback from the Nestucca River, determined by the Oregon Department of Fish and Wildlife (ODFW) and measured in accordance with TCLUO Section 4.140, shall be maintained on the subject property for the proposed improvement. Future development on the subject property shall also maintain the required riparian setback and comply with the requirements of TCLUO 4.140: Development Requirements for Water Quality and Streambank Stabilization.
4. The applicant/property owner shall submit a site plan drawn to scale that confirms all required setbacks are met. The site plan shall be submitted to the Department of Community Development at the time of consolidated Zoning and Building Permit application submittal.
5. The applicant/property owner shall obtain a water availability letter from the Oregon Water Resources Department and a fire letter from the Nehalem Fire and Rescue District. Letters shall be submitted to the Department of Community Development at the time of consolidated Zoning and Building Permit application submittal.
6. The applicant/property owner shall obtain approval for onsite sanitation with the Tillamook County Onsite Wastewater Division for the development of the proposed dwelling. The approval shall be submitted to the Department at time of Consolidated Zoning and Building permit submittal.
7. Development shall comply with the applicable standards of TCLUO Section 3.010, 'Rural Residential 2-Acre (RR-2) Zone' and TCLUO Section 3.106, 'Estuary Conservation 1 (EC1) Zone'.
8. The applicant/property owner shall comply with all 'Zone AE' and 'Floodway' flood hazard construction standards per FEMA requirements. All construction shall adhere to the standards for a residential structure in the 'AE' flood zone per TCLUO Section '3.510'. This shall be reviewed and verified by this Department during the Building Permit process.
9. The dwelling shall comply with all Building Code requirements for Anchoring, Construction Materials and Methods, and Utilities for residential structure located in the 'AE' and Floodway flood zones.
10. Owner/Applicant shall submit a 'Post-Elevation' certificate completed by a registered surveyor and provided on the current FEMA form prior to receiving Certificate of Occupancy for the dwelling.
11. This approval shall be void on November 5, 2027, unless construction of approved plans has begun, or an extension is requested from, and approved by this Department.

## **VII. EXHIBITS**

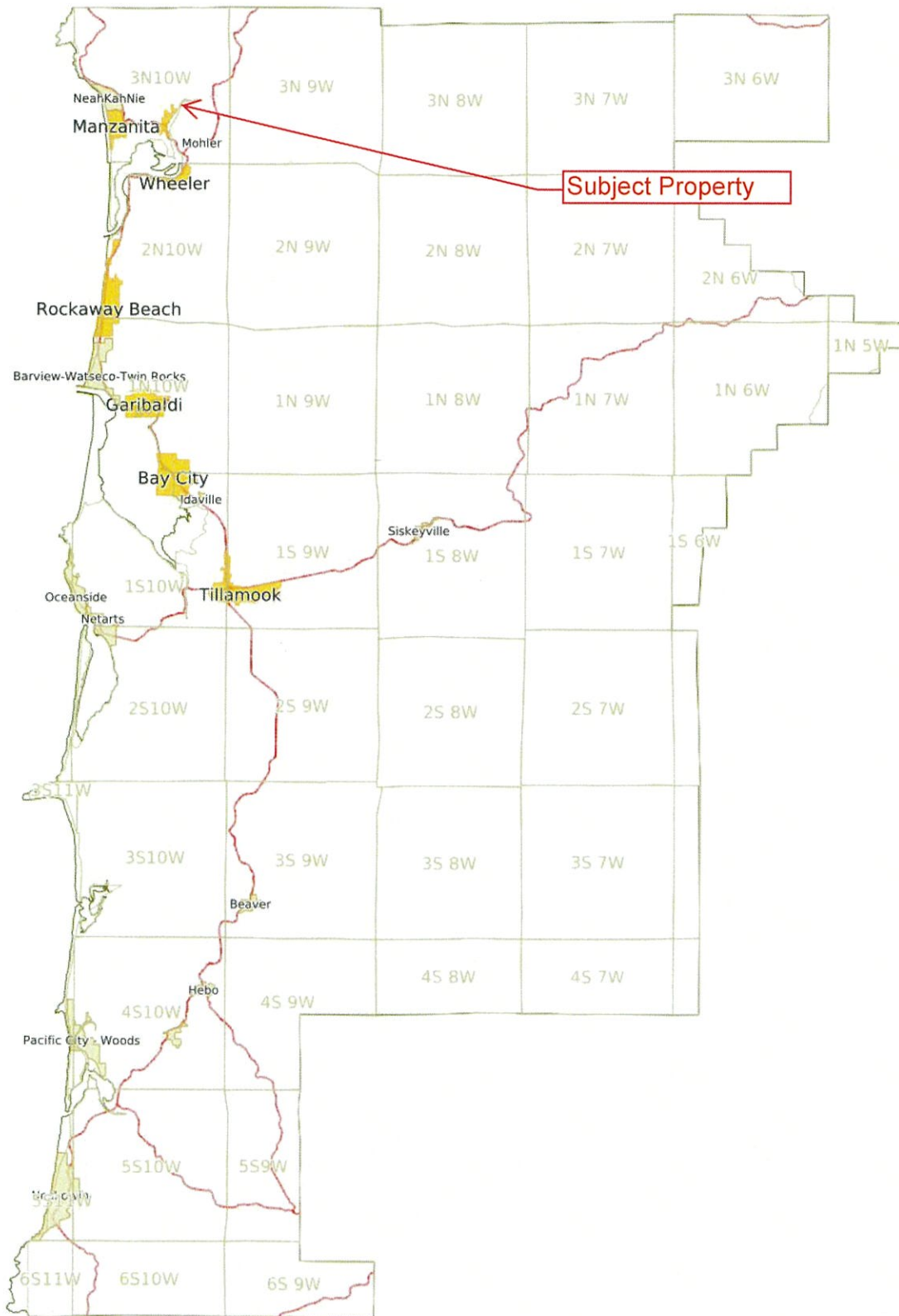
All Exhibits referred to herein are, by this reference, made a part hereof:

- A. Location map, Assessor map, Zoning map, FEMA FIRM, NWI Wetlands map
- B. Applicant's submittal
- C. Public Comments



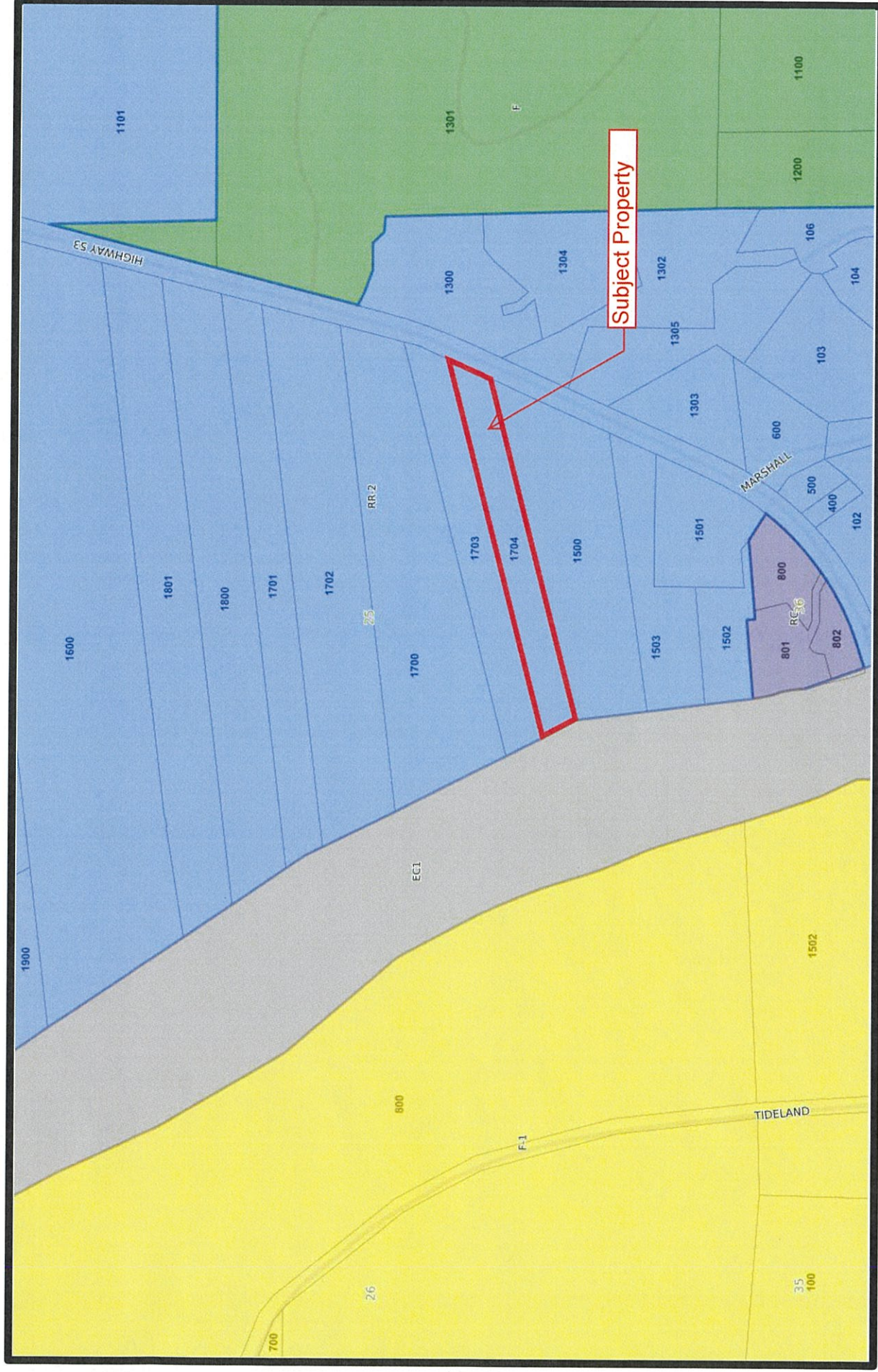
# EXHIBIT A

# Vicinity Map





# Zoning Map



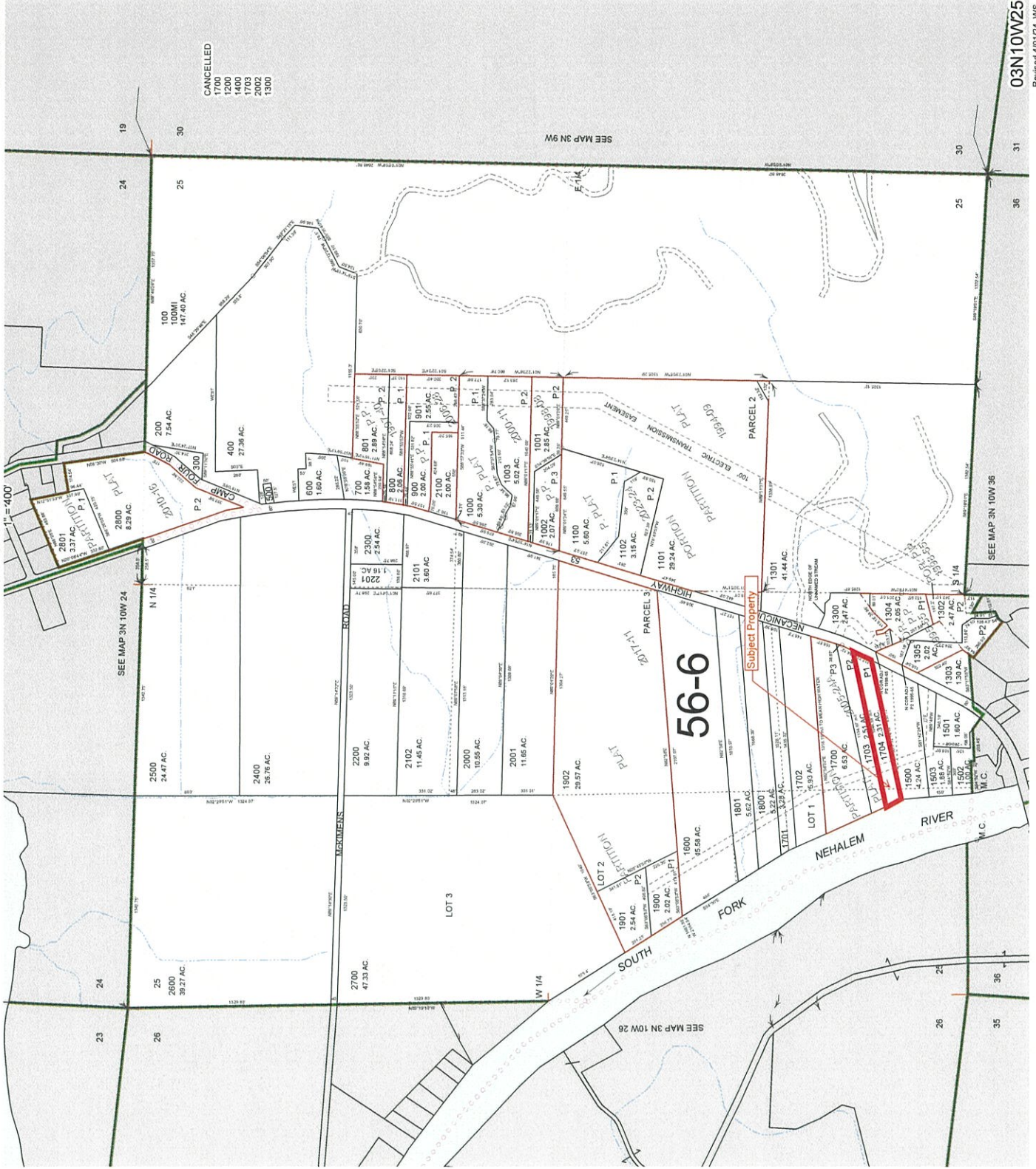


THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY

SECTION 25 T.3N. R.10W. WM.

TILLAMOOK COUNTY

03N10W25



03N10W25

Revised 4/01/24, WS



**Tillamook County**  
**2025 Real Property Assessment Report**  
 Account 410952

**Map** 3N10250001704  
**Code - Tax ID** 5606 - 410952

**Tax Status** Assessable  
**Account Status** Active  
**Subtype** NORMAL

**Legal Descr** PARTITION PLAT 2005-24A  
 Lot - PARCEL 1

**Mailing** BRUNS, JACOB ALLEN & KAYLEEN ROSE  
 27150 ELK TRAIL DR  
 NEHALEM OR 97131

**Deed Reference #** 2022-5828  
**Sales Date/Price** 09-15-2022 / \$130,000  
**Appraiser** EVA FLETCHER

**Property Class** 400 MA SA NH  
**RMV Class** 400 02 WF 263

<b>Site Situs Address</b>	<b>City</b>
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Value Summary					
Code Area		RMV	MAV	AV	RMV Exception CPR %
5606	Land	135,140		Land	0
	Impr	0		Impr	0
Code Area Total		135,140	86,320	86,320	0
Grand Total		135,140	86,320	86,320	0

Land Breakdown									
Code Area	ID #	RFPD	Ex	Plan Zone	Value Source	Trend %	Size	Land Class	Trended RMV
5606	1	<input checked="" type="checkbox"/>		RR-2	Market	109	2.31 AC		135,140
Code Area Total							2.31 AC		135,140

Improvement Breakdown									
Code Area	ID #	Year Built	Stat Class	Description	Trend %	Total Sqft	Ex%	MS Acct	Trended RMV

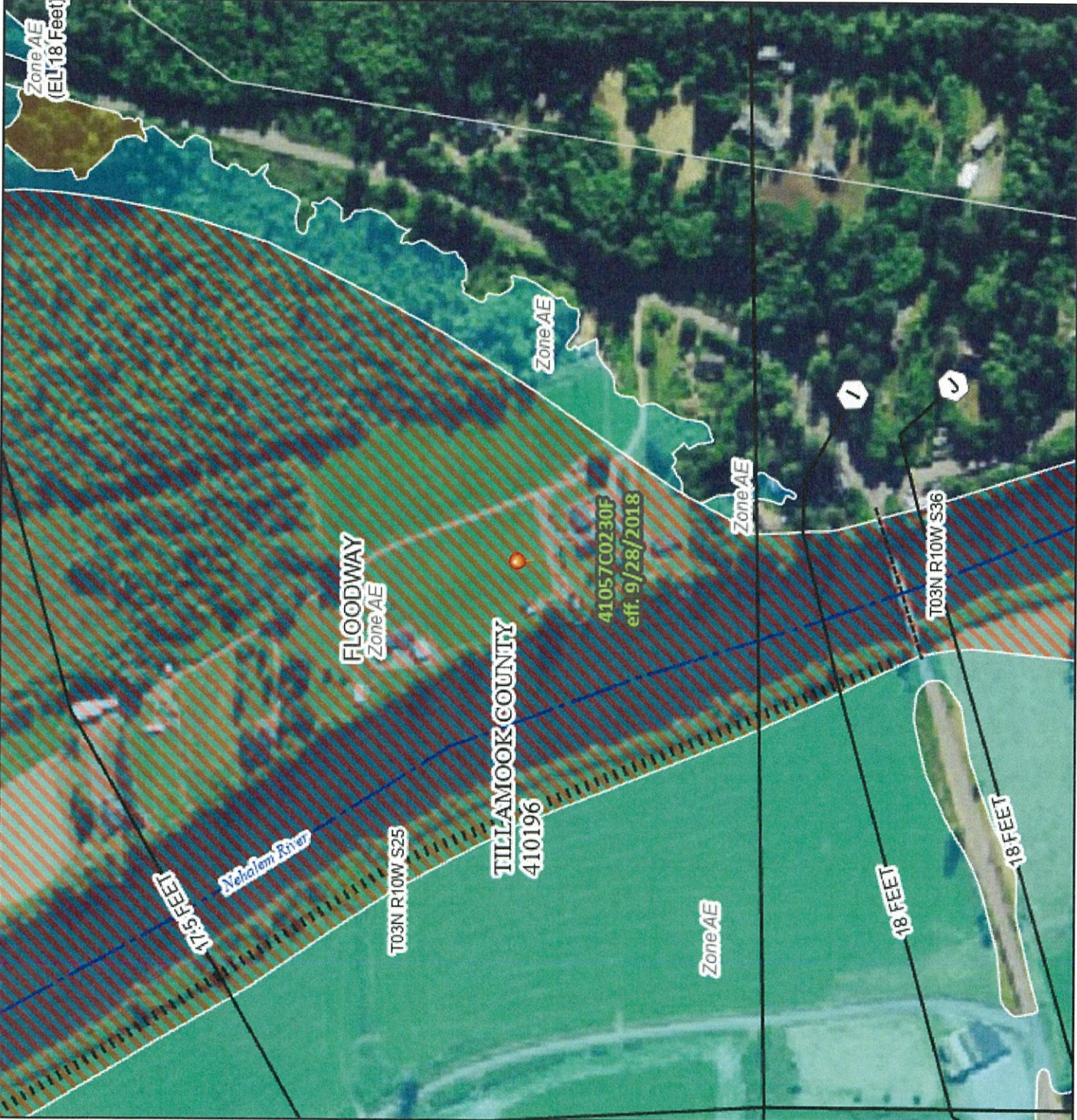
**Comments** 2/22/06 Brought land to market after p. plat 2005-24A created TL 1703+1704 from TL 1700. KF 1/21/15  
 Reappraised land and tabled values. WH 10/14/15 Updated land adjustments.ef 04/28/20 Code change due to  
 FP removal.ef



# National Flood Hazard Layer FIRMette



123°51'49"W 45°42'54"N



## 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

0.2% Annual Chance Flood Hazard, Area 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

NO SCREEN  
Area of Minimal Flood Hazard Zone X  
Effective LOMRs

Area of Undetermined Flood Hazard Zone

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

Cross Sections with 1% Annual Chance Water Surface Elevation

Coastal Transect  
Base Flood Elevation Line (BFE)

Limit of Study

Jurisdiction Boundary

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

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

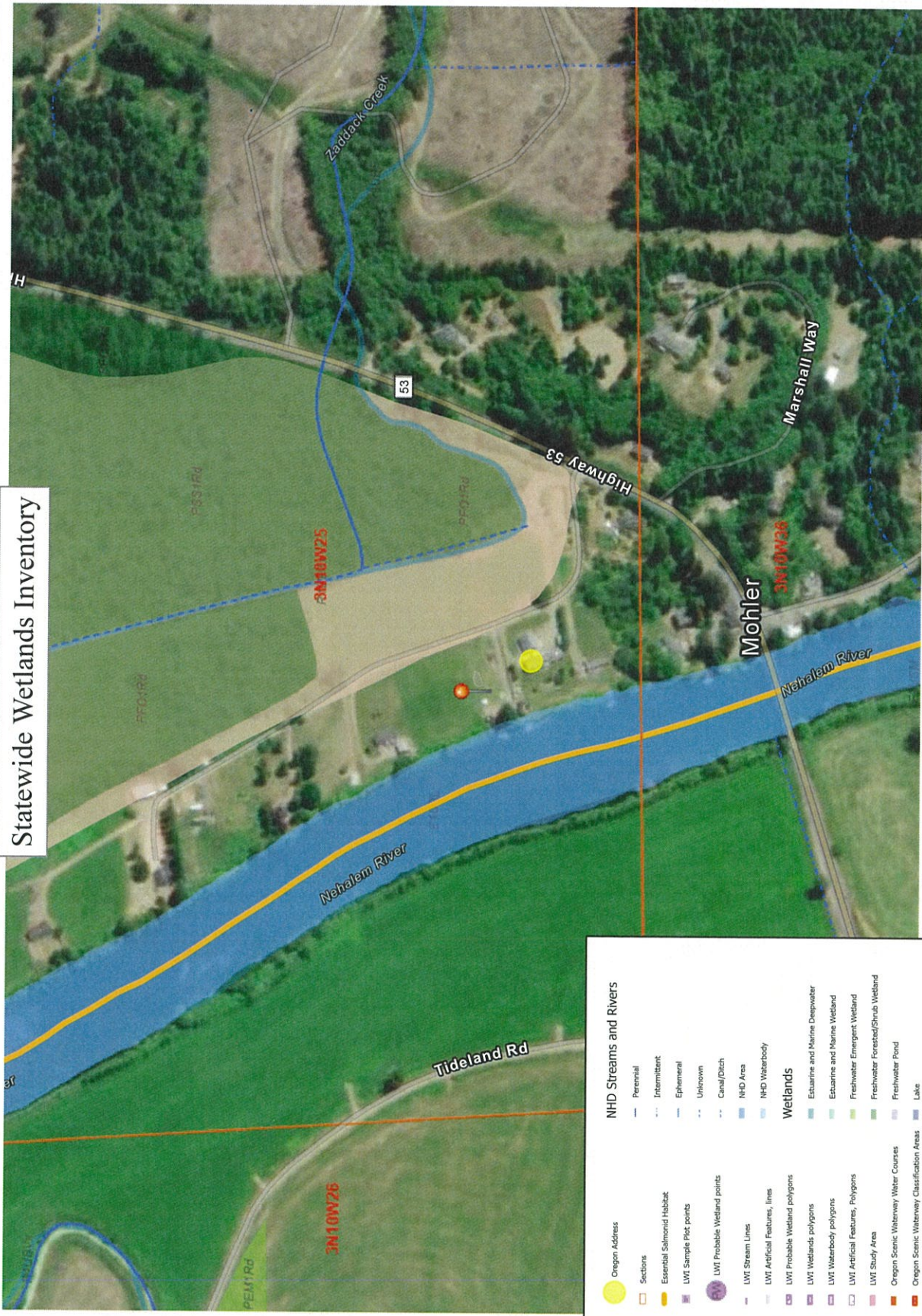
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/23/2024 at 12:45 AM 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.



# Statewide Wetlands Inventory



- NHD Streams and Rivers**
- Oregon Address
  - Sections
  - Essential Salmonid Habitat
  - LWI Sample Plot points
  - LWI Probable Wetland points
  - LWI Stream Lines
  - LWI Artificial Features, Lines
  - LWI Probable Wetland polygons
  - LWI Wetlands polygons
  - LWI Waterbody polygons
  - LWI Artificial Features, Polygons
  - LWI Study Area
  - Oregon Scenic Waterway Water Courses
  - Oregon Scenic Waterway Classification Areas
  - NHD Springs/Seeps
  - Perennial
  - Intermittent
  - Epithermal
  - Unknown
  - Canal/Ditch
  - NHD Area
  - NHD Waterbody
  - Wetlands
  - Estuarine and Marine Deepwater
  - Estuarine and Marine Wetland
  - Freshwater Emergent Wetland
  - Freshwater Forested/Shrub Wetland
  - Freshwater Pond
  - Lake
  - Riverine
  - SWI Predominantly Hydric Soil Map Units
  - SWI Aquatic Wetlands

1:6,817

0 0.04 0.09 0.17 0.26 0.34

mi

The Statewide Wetlands Inventory (SWI) represents the best data available at the time this map was published and is updated as new data becomes available. In all cases, actual field conditions determine the presence, absence and boundaries of wetlands and waters (such as creeks and ponds). An onsite investigation by a wetland professional can verify actual field conditions.



# **EXHIBIT B**





## DEVELOPMENT PERMIT

**Applicant** ☒ (Check Box if Same as Property Owner)

Name: Jacob Bruns Phone: 503-812-4331  
Address: 27150 Elk Trail Dr.  
City: Nehalem State: OR Zip: 97131  
Email: topgradeexcavation@yahoo.com

### Property Owner

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Email: \_\_\_\_\_

OFFICE USE ONLY	
Date Stamp	
<div style="border: 2px solid blue; padding: 5px; text-align: center;"> <b>RECEIVED</b>  NOV 26 2024  BY: <u>M. Conner</u> </div>	
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied
Received by: _____	
Receipt #: _____	
Fees: <u>1,600 + 151. tech fee</u>	
Permit No: <u>851-24-000640-PLNG</u>	

**Description of Work:** New house. Build, including new utilities, water, power, phone, and septic. Install new fence on north side property line. Remove soil for new house location, 42x78'. Add 120yds of Rock for foundation Base. Remove soil for parking, add 40yds Rock  
**Location:**

Site Address: Highway 53

Map Number: 3N 10 2500 1704  
Township Range Section Tax Lot(s)

### Complete all applicable fields:

Regulatory Floodway: <input type="checkbox"/>	Estuary: <input type="checkbox"/>	Floodplain: <input checked="" type="checkbox"/>
New: <input checked="" type="checkbox"/> Addition: <input type="checkbox"/>	Replacement: <input type="checkbox"/>	Remodel: <input type="checkbox"/> Demolish: <input type="checkbox"/>
Dwelling: <u>new house</u>	Accessory Structure: _____	
Culvert Diameter: _____	Bridge Length: _____	
Length: _____	Width: _____	
Fence Height: <u>4ft</u>	Retaining Wall Height: _____	
Streambank Stabilization: _____	Other: _____	
Fill/Removal/Grading: <u>260</u> CY	Vegetation Removal: _____ CY	

Structure/Damage \$: _____	5 Year Construction \$: _____
<b>Substantial improvement/damage threshold 50% cost vs. value</b>	

### Flood Insurance Rate Map (FIRM) Panel Info

Tillamook County	Panel Number: <u>41057C 0230 E</u>
Effective Date: <u>9/28/18</u>	Property Flood Zone(s): <u>AE</u>
Floodway: <u>(Y) N</u>	Project Flood Zone(s): <u>AE</u>
Stream/Waterbody Name: <u>South Fork Nehalem River</u>	

### Elevation Data (NAVD 88)

Base Flood Elevation: <u>18.7</u>	First Habitable Floor: <u>20.7</u> -min
Lowest Floor/Horizontal Member: <u>20.7</u>	
Enclosed Area: _____	Flood Vent Area: _____

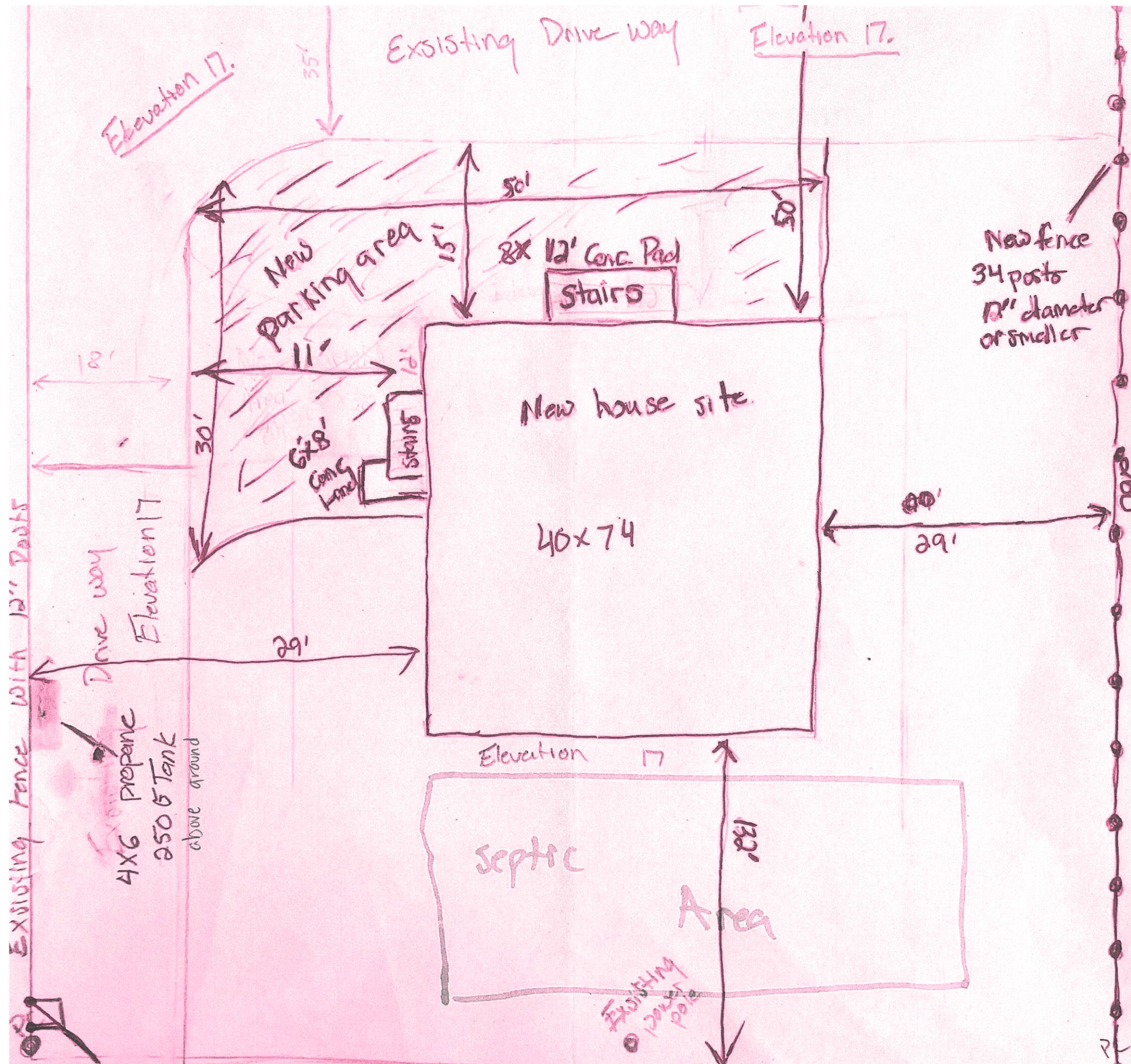
### Other Required Permits


### Authorization

This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

Property Owner Signature (Required) \_\_\_\_\_ Date: 11-15-24  
Applicant Signature \_\_\_\_\_ Date: 11-15-24







U.S. DEPARTMENT OF HOMELAND SECURITY  
Federal Emergency Management Agency  
National Flood Insurance Program



**ELEVATION CERTIFICATE**

**IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11.**

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

**SECTION A – PROPERTY INFORMATION**

**FOR INSURANCE COMPANY USE**

A1. Building Owner's Name: <u>Jacob &amp; Kayleen Bruns</u>	Policy Number: _____
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: <u>N/A HWY 53</u>	Company NAIC Number: _____
City: <u>Nehalem</u> State: <u>OR</u> ZIP Code: <u>97131</u>	
A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number: <u>3N 10 25 Tax Lot 1704</u>	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): <u>Residential</u>	
A5. Latitude/Longitude: Lat. <u>N 45.71150</u> Long. <u>W 123.85844</u> Horiz. Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983 <input type="checkbox"/> WGS 84	
A6. Attach at least two and when possible four clear color photographs (one for each side) of the building (see Form pages 7 and 8).	
A7. Building Diagram Number: <u>8</u>	
A8. For a building with a crawlspace or enclosure(s):	
a) Square footage of crawlspace or enclosure(s): <u>1667</u> sq. ft.	
b) Is there at least one permanent flood opening on two different sides of each enclosed area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade: Non-engineered flood openings: <u>0</u> Engineered flood openings: <u>9</u>	
d) Total net open area of non-engineered flood openings in A8.c: <u>0</u> sq. in.	
e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions): <u>1800</u> sq. ft.	
f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): <u>1800</u> sq. ft.	
A9. For a building with an attached garage:	
a) Square footage of attached garage: <u>N/A</u> sq. ft.	
b) Is there at least one permanent flood opening on two different sides of the attached garage? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade: Non-engineered flood openings: <u>N/A</u> Engineered flood openings: <u>N/A</u>	
d) Total net open area of non-engineered flood openings in A9.c: <u>N/A</u> sq. in.	
e) Total rated area of engineered flood openings in A9.c (attach documentation – see Instructions): <u>N/A</u> sq. ft.	
f) Sum of A9.d and A9.e rated area (if applicable – see Instructions): <u>N/A</u> sq. ft.	

**SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION**

B1.a. NFIP Community Name: <u>Tillamook County</u>	B1.b. NFIP Community Identification Number: <u>410196</u>		
B2. County Name: <u>Tillamook</u>	B3. State: <u>OR</u>	B4. Map/Panel No.: <u>41057C0230</u>	B5. Suffix: <u>F</u>
B6. FIRM Index Date: <u>09/28/2018</u>	B7. FIRM Panel Effective/Revised Date: <u>09/28/2018</u>		
B8. Flood Zone(s): <u>AE</u>	B9. Base Flood Elevation(s) (BFE) (Zone AO, use Base Flood Depth): <u>18.7'</u>		
B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9: <input checked="" type="checkbox"/> FIS <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other: _____			
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____			
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA			
B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			



# ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:  
N/A HWY 53

City: Nehalem State: OR ZIP Code: 97131

## FOR INSURANCE COMPANY USE

Policy Number: \_\_\_\_\_

Company NAIC Number: \_\_\_\_\_

## SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings\* ☐ Building Under Construction\* ☐ Finished Construction  
\*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: GPS Observation

Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☒ NAVD 1988 ☐ Other: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE. Conversion factor used?

☐ Yes ☒ No

If Yes, describe the source of the conversion factor in the Section D Comments area.

Check the measurement used:

- |   |             |  |
|---|-------------|--|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor):  | <u>16.5</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| b) Top of the next higher floor (see Instructions):   | <u>22.7</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (see Instructions):  | <u>N/A</u>  | <input type="checkbox"/> feet <input type="checkbox"/> meters            |
| d) Attached garage (top of slab):   | <u>N/A</u>  | <input type="checkbox"/> feet <input type="checkbox"/> meters            |
| e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area): | <u>22.7</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| f) Lowest Adjacent Grade (LAG) next to building: <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Finished              | <u>16.1</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| g) Highest Adjacent Grade (HAG) next to building: <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Finished             | <u>15.7</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |
| h) Finished LAG at lowest elevation of attached deck or stairs, including structural support:   | <u>15.7</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters |

## SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No

☐ Check here if attachments and describe in the Comments area.

Certifier's Name: Erick M. White License Number: PLS 78572

Title: Owner

Company Name: Onion Peak Design

Address: 11460 Evergreen Way

City: Nehalem State: OR ZIP Code: 97131

Telephone: (503) 440-4403 Ext.: \_\_\_\_\_ Email: erick.opd@gmail.com

Signature: Erick M. White

Date: 07/14/2025

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

Erick M. White

OREGON  
APRIL 28, 2014  
ERICK M. WHITE  
78572

RENEWS: 03/02/26  
Place Seal Here

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments):  
The top of bottom floor will be the ground inside the crawlspace. The next higher floor is the finished floor. The lowest machinery servicing the building will be the water heater located on the finished floor. The engineered flood vents will be FEMA compliant model 1540-520 and ICC-ES rated for 200 sq ft. per vent. ICC-ES report is attached. Flood vents are based on conversation with property owner as they are not shown on plans.



# ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:  
N/A HWY 53

City: Nehalem State: OR ZIP Code: 97131

## FOR INSURANCE COMPANY USE

Policy Number: \_\_\_\_\_

Company NAIC Number: \_\_\_\_\_

## SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.

Building measurements are based on: ☐ Construction Drawings\* ☐ Building Under Construction\* ☐ Finished Construction  
\*A new Elevation Certificate will be required when construction of the building is complete.

E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the appropriate boxes to show whether the measurement is above or below the natural HAG and the LAG.

a) Top of bottom floor (including basement, crawlspace, or enclosure) is: \_\_\_\_\_ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is: \_\_\_\_\_ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (C2.b in applicable Building Diagram) of the building is: \_\_\_\_\_ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is: \_\_\_\_\_ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is: \_\_\_\_\_ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown The local official must certify this information in Section G.

## SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge*

☐ Check here if attachments and describe in the Comments area.

Property Owner or Owner's Authorized Representative Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ Email: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Comments: \_\_\_\_\_



# ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:  
N/A HWY 53

City: Nehalem State: OR ZIP Code: 97131

## FOR INSURANCE COMPANY USE

Policy Number: \_\_\_\_\_

Company NAIC Number: \_\_\_\_\_

### SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when:

- G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2.a. ☐ A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.
- G2.b. ☐ A local official completed Section H for insurance purposes.
- G3. ☐ In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.
- G4. ☐ The following information (Items G5–G11) is provided for community floodplain management purposes.
- G5. Permit Number: \_\_\_\_\_ G6. Date Permit Issued: \_\_\_\_\_
- G7. Date Certificate of Compliance/Occupancy Issued: \_\_\_\_\_
- G8. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement
- G9.a. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_ ☐ feet ☐ meters Datum: \_\_\_\_\_
- G9.b. Elevation of bottom of as-built lowest horizontal structural member: \_\_\_\_\_ ☐ feet ☐ meters Datum: \_\_\_\_\_
- G10.a. BFE (or depth in Zone AO) of flooding at the building site: \_\_\_\_\_ ☐ feet ☐ meters Datum: \_\_\_\_\_
- G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member: \_\_\_\_\_ ☐ feet ☐ meters Datum: \_\_\_\_\_
- G11. Variance issued? ☐ Yes ☐ No If yes, attach documentation and describe in the Comments area.

The local official who provides information in Section G must sign here. I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.

Local Official's Name: \_\_\_\_\_ Title: \_\_\_\_\_

NFIP Community Name: \_\_\_\_\_

Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in Sections A, B, D, E, or H):



# ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:  
N/A HWY 53

City: Nehalem State: OR ZIP Code: 97131

## FOR INSURANCE COMPANY USE

Policy Number: \_\_\_\_\_

Company NAIC Number: \_\_\_\_\_

### SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)

The property owner, owner's authorized representative, or local floodplain management official may complete Section H for all flood zones to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be completed. Enter heights to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). **Reference the Foundation Type Diagrams (at the end of Section H Instructions) and the appropriate Building Diagrams (at the end of Section I Instructions) to complete this section.**

H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the Lowest Adjacent Grade (LAG):

a) For Building Diagrams 1A, 1B, 3, and 5–8. Top of bottom \_\_\_\_\_ ☐ feet ☐ meters ☐ above the LAG  
floor (include above-grade floors only for buildings with  
crawlspaces or enclosure floors) is:

b) For Building Diagrams 2A, 2B, 4, and 6–9. Top of next \_\_\_\_\_ ☐ feet ☐ meters ☐ above the LAG  
higher floor (i.e., the floor above basement, crawlspace, or  
enclosure floor) is:

H2. Is all Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevated to or above the floor indicated by the H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the appropriate Building Diagram?  
☐ Yes ☐ No

### SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and H must sign here. *The statements in Sections A, B, and H are correct to the best of my knowledge.* **Note:** If the local floodplain management official completed Section H, they should indicate in Item G2.b and sign Section G.

☐ Check here if attachments are provided (including required photos) and describe each attachment in the Comments area.

Property Owner or Owner's Authorized Representative Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Ext.: \_\_\_\_\_ Email: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Comments: \_\_\_\_\_



**ELEVATION CERTIFICATE**  
**IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11**  
**BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:  
N/A HWY 53

City: Nehalem State: OR ZIP Code: 97131

**FOR INSURANCE COMPANY USE**

Policy Number: \_\_\_\_\_

Company NAIC Number: \_\_\_\_\_

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo One

Photo One Caption:

Clear Photo One

Photo Two

Photo Two Caption:

Clear Photo Two



**ELEVATION CERTIFICATE**  
**IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11**  
**BUILDING PHOTOGRAPHS**

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:  
N/A HWY 53

**FOR INSURANCE COMPANY USE**

Policy Number: \_\_\_\_\_

Company NAIC Number: \_\_\_\_\_

City: Nehalem State: OR ZIP Code: 97131

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo Three

Photo Three Caption:

Clear Photo Three

Photo Four

Photo Four Caption:

Clear Photo Four





*Most Widely Accepted and Trusted*

# ICC-ES Evaluation Report

ICC-ES | (800) 423-6587 | (562) 699-0543 | [www.icc-es.org](http://www.icc-es.org)

## ESR-2074

Reissued 02/2025

This report is subject to renewal 02/2027.

**DIVISION: 08 00 00—OPENINGS**

**SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS**

**REPORT HOLDER:**

**SMART VENT PRODUCTS, INC.**

**EVALUATION SUBJECT:**

**SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520;  
#1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514  
FLOOD VENT SEALING KIT #1540-526**



*"2014 Recipient of Prestigious Western States Seismic Policy Council  
(WSSPC) Award in Excellence"*



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# ICC-ES Evaluation Report

ESR-2074

Reissued February 2025

This report also contains:


- CA Supplement

Subject to renewal February 2027

- FL Supplement

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<p><b>DIVISION: 08 00 00—</b> <b>OPENINGS</b></p> <p><b>Section: 08 95 43—</b> <b>Vents/Foundation Flood Vents</b></p>	<p><b>REPORT HOLDER:</b></p> <p><b>SMART VENT</b> <b>PRODUCTS, INC.</b></p>	<p><b>EVALUATION SUBJECT:</b></p> <p><b>SMART VENT®</b> <b>AUTOMATIC</b> <b>FOUNDATION FLOOD</b> <b>VENTS: MODELS #1540-</b> <b>520; #1540-521; #1540-</b> <b>510; #1540-511; #1540-</b> <b>570; #1540-574; #1540-</b> <b>524; #1540-514</b></p> <p><b>FLOOD VENT SEALING</b> <b>KIT #1540-526</b></p>	
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## 1.0 EVALUATION SCOPE

**Compliance with the following codes:**

- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 [International Residential Code® \(IRC\)](#)
- 2024, 2021 and 2018 [International Energy Conservation Code® \(IECC\)](#)
- 2013 *Abu Dhabi International Building Code (ADIBC)*<sup>†</sup>

<sup>†</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

**Properties evaluated:**

- Physical operation
- Water flow

## 2.0 USES

The Smart Vent® units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

## 3.0 DESCRIPTION

### 3.1 General:

When subjected to rising water, the Smart Vent® FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water, the buoyant release device causes the unit to unlatch, allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. Smart Vent® Automatic Foundation Flood Vents are available in various models and sizes as described in [Table 1](#). The SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 units each contain two vertically arranged openings per unit.



### 3.2 Engineered Opening:

The FVs comply with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs must be installed in accordance with Section 4.0.

### 3.3 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with 1/4-inch-by-1/4-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm<sup>2</sup>) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm<sup>2</sup>) of net free area to supply natural ventilation. Other FVs described in this report do not offer natural ventilation.

### 3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT® Model #1540-520. It is a Homasote 440 Sound Barrier® (ESR-1374) insert with 21 – 2-inch-by-2-inch (51 mm x 51 mm) squares cut in it. See [Figure 4](#).

## 4.0 DESIGN AND INSTALLATION

### 4.1 SmartVENT® and FloodVENT®:

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code, and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent® FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 200 square feet (18.6 m<sup>2</sup>) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m<sup>2</sup>) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

### 4.2 Flood Vent Sealing Kit

The Flood Vent Sealing Kit Model 1540-526 is used in conjunction with FloodVENT® Model #1540-520. When installed and tested in accordance with ASTM E283, the FV and Flood Vent Sealing Kit assembly have an air leakage rate of less than 0.2 cubic feet per minute per lineal foot (18.56 l/min per lineal meter) at a pressure differential of 1 pound per square foot (50 Pa) based on 12.58 lineal feet (3.8 lineal meters) contained by the Flood Vent Sealing Kit.

## 5.0 CONDITIONS OF USE:

The Smart Vent® FVs described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The Smart Vent® FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern.
- 5.2 The Smart Vent® FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

## 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents \(AC364\)](#), dated August 2015 (editorially revised February 2024).
- 6.2 Test report on air infiltration in accordance with ASTM E283.



## 7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-2074) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 The Smart VENT® models and the Flood Vent Sealing Kit described in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).
- 7.3 The report holder's contact information is the following:

**SMART VENT PRODUCTS, INC.**  
**19 MANTUA ROAD**  
**MOUNT ROYAL, NEW JERSEY 08061**  
**(877) 441-8368**  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto:info@smartvent.com)



TABLE 1—MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE <sup>1</sup> (ft <sup>2</sup> )
FloodVENT <sup>®</sup>	1540-520	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT <sup>®</sup>	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT <sup>®</sup> Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT <sup>®</sup> Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT <sup>®</sup>	1540-570	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT <sup>®</sup> Overhead Door	1540-574	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT <sup>®</sup> Stacker	1540-511	16" X 16"	400
FloodVent <sup>®</sup> Stacker	1540-521	16" X 16"	400

For SI: 1 inch = 25.4 mm; 1 square foot = m<sup>2</sup>

<sup>1</sup>The coverage area in square feet for each model is equivalent to the performance of the same number of square inches of non-engineered openings.

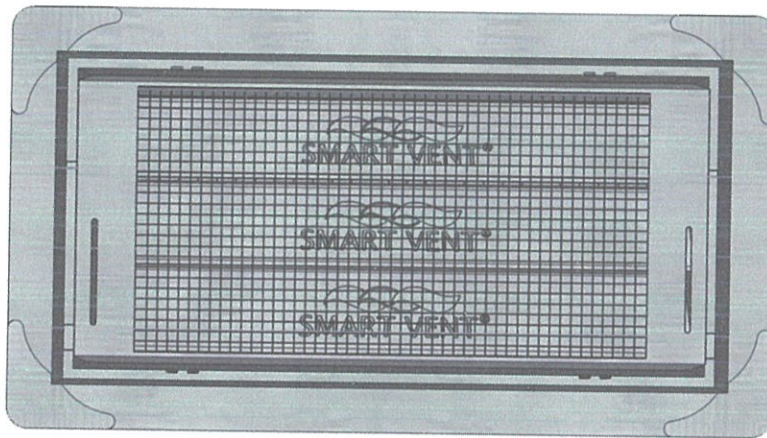


FIGURE 1—SMART VENT: MODEL 1540-510

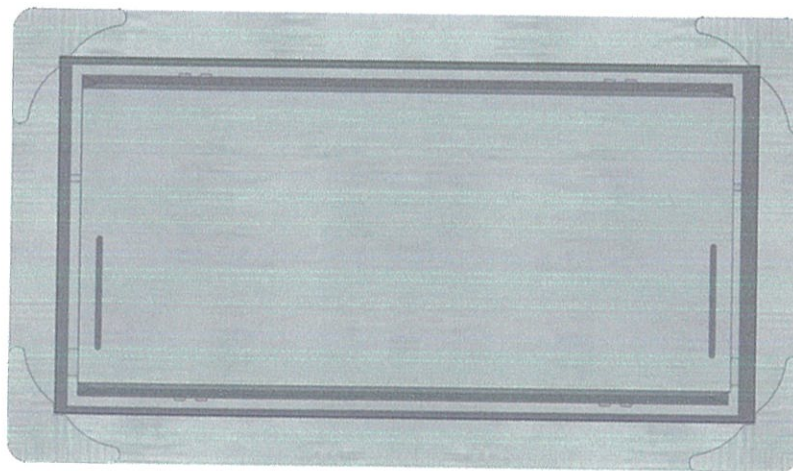


FIGURE 2—SMART VENT MODEL 1540-520



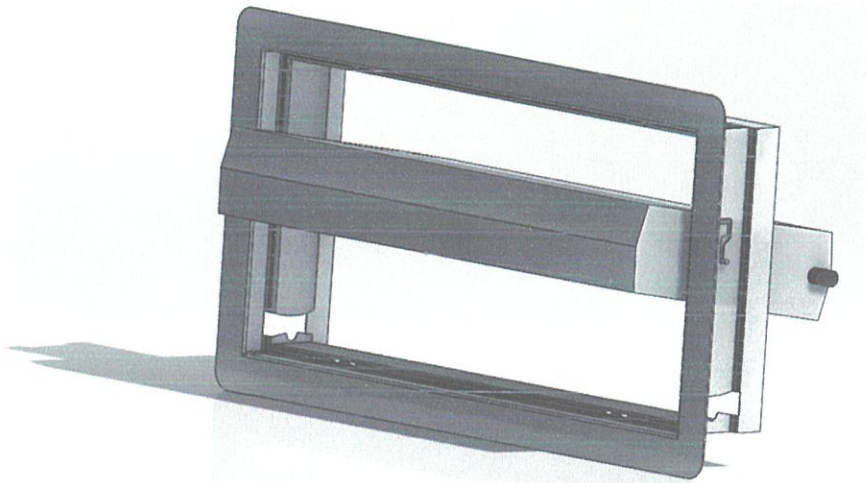


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

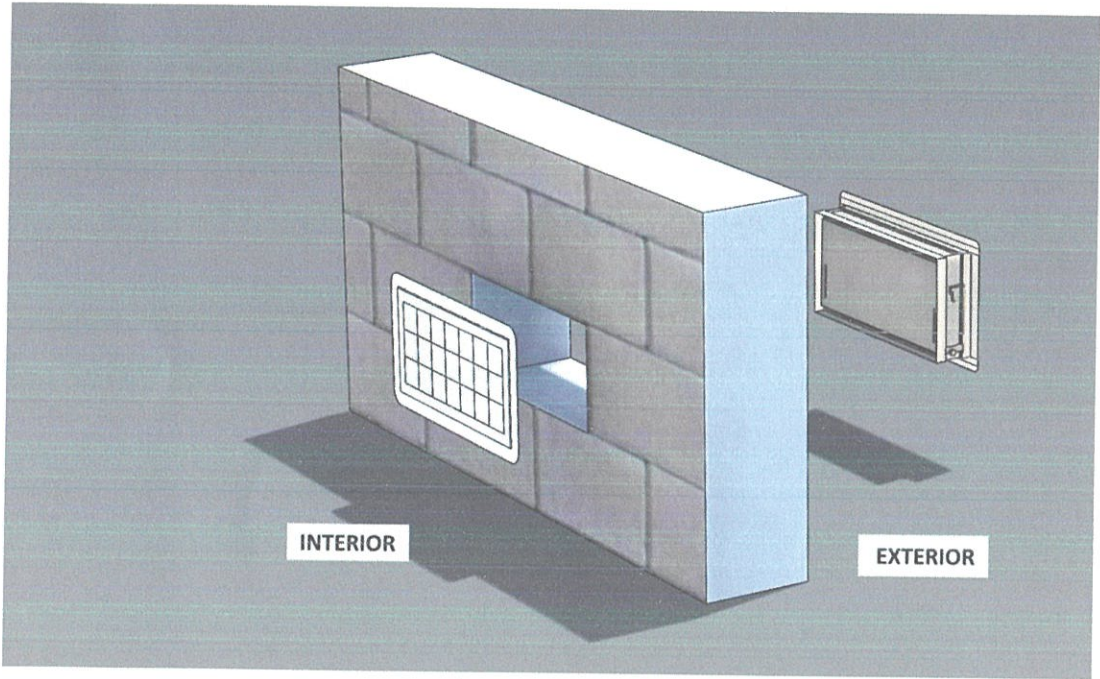


FIGURE 4—FLOOD VENT SEALING KIT



# ICC-ES Evaluation Report

## ESR-2074 CA Supplement

Reissued February 2025

*This report is subject to renewal February 2027.*

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

### REPORT HOLDER:

SMART VENT PRODUCTS, INC.

### EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514  
FLOOD VENT SEALING KIT #1540-526

## 1.0 REPORT PURPOSE AND SCOPE

### Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with codes noted below.

### Applicable code editions:

#### ■ 2022 California Building Code (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

#### ■ 2022 California Residential Code (CRC)

## 2.0 CONCLUSIONS

### 2.1 CBC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with CBC Chapter 12, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 12 and 16, as applicable.

#### 2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

#### 2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

### 2.2 CRC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with the CRC, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued February 2025.



# ICC-ES Evaluation Report

## ESR-2074 FL Supplement

Reissued February 2025

This report is subject to renewal February 2027.

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

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### REPORT HOLDER:

SMART VENT PRODUCTS, INC.

### EVALUATION SUBJECT:

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514  
FLOOD VENT SEALING KIT #1540-526

## 1.0 REPORT PURPOSE AND SCOPE

### Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with the codes noted below.

### Applicable code editions:

- 2023 Florida Building Code—Building
- 2023 Florida Building Code—Residential

## 2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, provided the design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-2074 for 2021 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable.

Use of the Smart Vent® Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential*.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued February 2025.



# TECHNICAL MEMORANDUM

## WEST Consultants, Inc.

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**Name:** Jake Bruns  
**Company:** Top Grade Excavation  
**Date:** 23 June 2025  
**From:** Chris Bahner, PE, BC, WRE, Project Manager  
**Reviewed by:** Hans Hadley, PE, CFM, Vice President  
**Subject:** No-Rise Analysis and Certification for Tax Lot 1704 on Tax Map 03N10W25 in Tillamook County, Oregon

## Introduction

Per your request, a FEMA "No-Rise" hydraulic analysis was conducted for a proposed development that will be located at Tax Lot 1704 on Tax Map 03N10W25 in Tillamook County, Oregon. The property is located within the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA) and regulatory floodway for the Nehalem River between FEMA lettered cross sections "H" and "I". **Figure 1** presents the study area and effective FEMA flood hazard mapping. All figures referenced in the text are provided in **Appendix A**. The proposed development includes a new home that will be built on concrete stem walls with the first floor elevated at least 2 ft above the base flood elevation (BFE). The proposed development will also include the placement of fill, fence posts along the northern boundary, and propane tank near the southern boundary. The effective base flood elevation bounding the subject property are 17.5 ft at FEMA cross section "H" and 18.0 ft at FEMA cross section "I", according to the effective Floodway Data Table shown in **Figure 2**.

As specified by Article 3, Section 2.03.510(9a) of the Tillamook County Code, new construction is prohibited within a regulatory floodway "unless certification is provided by a professional registered civil engineer demonstrating through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that such encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge."

A hydraulic study was conducted in accordance with standard engineering practice for a FEMA Engineering no-rise analysis which indicates that the proposed development will not result in an increase in regulatory and floodway water surface elevations for the Nehalem River.

Information pertinent to the site includes the following:

Identifier:	Jake Bruns Proposed House
Property:	Tax Lot 1704 on Tax Map 03N10W25
Flooding Source:	Nehalem River
Community:	Tillamook Count, Oregon
Community No.:	410196
FIRM Panel:	41057C0230F

This memorandum summarizes the methodology and results of the no-rise hydraulic analysis. Unless otherwise stated, all elevations within this report are referenced to the North American Vertical Datum of 1988 (NAVD88).

## **FEMA “No-Rise” Analysis Approach**

The FEMA No-Rise analysis was completed using the U.S. Army Corps of Engineers (USACE) software HEC-RAS (Hydraulic Engineering Center – River Analysis System) version 6.6 (USACE 2025). Procedures set forth by FEMA call for a multi-step analysis approach for evaluating a proposed project for No-Rise certification (FEMA 2023). The steps are as follows:

1. Current Effective Model: Obtain the effective model upon which the current effective Base Flood Elevation (BFE) and floodway extents are based. FEMA archives effective models.
2. Duplicate Effective Model (DEM): Use the Current Effective Model input data to create a DEM to ensure that the results recorded in the effective Flood Insurance Study (FIS) can be reproduced within an acceptable tolerance.
3. Corrected Effective Model (CEM): Modify the DEM to correct any errors and incorporate the most recent topographic information.
4. Existing Conditions Model (ECM): Revise the CEM to reflect any modifications that have occurred within the floodplain since the date of the original analysis but prior to the proposed project. This model should be the best depiction of existing conditions.
5. Proposed Conditions Model (PCM): Develop the PCM to reflect conditions following the completion of the project and compare it with the ECM to determine the project's effects (if any). The direct comparison of water surface elevations between the results of these two models is the basis of a No-Rise analysis.

### **Effective Model**

Documentation accompanying the effective model indicates that it was produced using Geographic Information System (GIS) data available in the digital flood insurance map (DFIRM) for Tillamook County (FEMA) and topographic data available from the Oregon Department of Geologic and Mineral Industries (DOGAMI, 2009). The model includes FEMA lettered cross sections A through J and 21 unlettered cross



sections. Bathymetry at all cross sections except for the reach between River Mile (RM) 1.4 and RM 1.7 was based on NOAA data and manual adjustment to the thalweg elevations to match the FIS profiles. Bathymetry for all cross sections located between RM 1.4 and RM 1.7 was based on the bathymetric survey data obtained by WEST in March 2021 (WEST, 2021). Discharges and downstream boundary conditions are based on published values in the effective Flood Insurance Study (FEMA, 2018). The limits of floodway encroachments were extracted from the 'S\_FLD\_HAZ\_LN' GIS data layer in the DFIRM. All remaining hydraulic parameters in the effective model (Manning's roughness, flow-paths, etc.) were estimated based on data listed in the FIS, publicly available aerial imagery, and engineering judgement.

### Duplicate Effective Model (DEM)

A Duplicate Effective Model (DEM) was created from a copy of the effective model. Results from the DEM were compared with water surface elevations published in the floodway data table and on flood profiles in the FIS. The DEM results are within the minimum agreement tolerance of 0.1 ft, so it is considered sufficient for conducting a No-Rise analysis. **Table 1** presents the comparison of DEM and FIS water surface elevations.

**Table 1 - Duplicate Effective Model vs. Effective FIS**

River Station (RM) and FEMA XS Letter	Regulatory Water Surface Elevation (ft)			With Floodway Water Surface Elevation (ft)		
	FIS Effective Model	DEM	Difference (DEM - FIS)	FIS Effective Model	DEM	Difference (FIS - DEM)
0.45 A	13.11	13.11	0.00	13.45	13.45	0.00
0.60 --	13.32	13.32	0.00	13.61	13.61	0.00
0.73 --	13.36	13.36	0.00	13.65	13.65	0.00
0.78 --	13.40	13.40	0.00	13.70	13.70	0.00
0.80 --	13.50	13.50	0.00	13.80	13.80	0.00
0.86 --	13.55	13.55	0.00	13.86	13.86	0.00
0.95 --	13.63	13.63	0.00	13.94	13.94	0.00
0.994 B	13.68	13.68	0.00	14.00	14.00	0.00
1.05 C	13.70	13.70	0.00	14.01	14.01	0.00
1.33 --	13.88	13.88	0.00	14.20	14.20	0.00
1.50 --	14.04	14.04	0.00	14.36	14.36	0.00
1.74 --	14.31	14.31	0.00	14.64	14.64	0.00
1.92 --	14.74	14.74	0.00	15.13	15.13	0.00
2.01 D	14.84	14.84	0.00	15.26	15.26	0.00
2.28 --	14.95	14.95	0.00	15.35	15.35	0.00
2.49 --	15.15	15.15	0.00	15.53	15.53	0.00
2.92 E	15.53	15.53	0.00	15.89	15.89	0.00
3.12 --	15.68	15.68	0.00	16.12	16.12	0.00
3.24 --	15.75	15.75	0.00	16.25	16.25	0.00
3.28 --	15.79	15.79	0.00	16.33	16.33	0.00
3.66 F	16.22	16.22	0.00	16.96	16.96	0.00
3.80 --	15.98	15.98	0.00	16.77	16.77	0.00
4.78 G	17.53	17.53	0.00	18.34	18.34	0.00



5.17	--	17.60	17.60	0.00	18.41	18.41	0.00
5.26	--	17.63	17.63	0.00	18.45	18.45	0.00
5.34	--	17.66	17.66	0.00	18.48	18.48	0.00
5.55	H	17.54	17.54	0.00	18.39	18.39	0.00
5.65	--	17.50	17.50	0.00	18.34	18.34	0.00
5.79	--	17.86	17.86	0.00	18.70	18.70	0.00
5.88	I	18.09	18.09	0.00	18.87	18.87	0.00
5.951	--	17.98	17.98	0.00	18.74	18.74	0.00
5.98	J	18.04	18.04	0.00	18.80	18.80	0.00

Notes: --- Indicates unlettered FEMA cross section

### Corrected Effective Model (CEM)

The DEM was modified to create the Corrected Effective Model (CEM). The modifications consisted of adding eighteen additional cross section at location of the proposed structures and/or changes in the structures; and revising the Manning's n-value and extraction/contraction coefficients for RS 5.88 to RS 5.951 to result in an increase in the water surface profile for the reach near Necanicum Highway bridge. **Figure 3** shows the added cross sections. Results from the CEM were compared with the water surface elevations computed by the DEM. That comparison is presented in **Table 2** for cross sections upstream RM 5.55.

As seen in **Table 2**, the CEM water surface elevations for the reach represented by the additional cross sections are about 0.06 to 0.12 ft higher than the DEM water surface elevations, and the CEM water surface elevations for the river reach upstream of the additional cross section are about 0.05 to 0.21 ft higher than the DEM water surface elevations and about 0.07 to 0.25 ft for the DEM floodway elevations. The floodway surcharge (which is not shown in the table) is still less than that maximum 1-foot increase allowed by FEMA.

Table 2 - Corrected Effective Model vs. Duplicate Effective Model

River Station (RM) and FEMA XS Letter	Regulatory Water Surface Elevation (ft)			With Floodway Water Surface Elevation (ft)		
	DEM	CEM	Difference (CEM - DEM)	DEM	CEM	Difference (CEM - DEM)
5.55 H	17.54	17.54	0.00	18.39	18.39	0.00
5.65 --	17.50	17.50	0.00	18.34	18.34	0.00
5.79 --	17.86	17.86	0.00	18.70	18.70	0.00
5.841	17.99	18.05	0.06	18.80	18.87	0.07
5.842	17.99	18.05	0.06	18.80	18.87	0.07
5.843	18.00	18.05	0.05	18.80	18.87	0.07
5.844	18.00	18.05	0.05	18.80	18.87	0.07
5.845	18.00	18.05	0.05	18.80	18.87	0.07
5.846	18.01	18.08	0.07	18.81	18.90	0.09
5.847	18.01	18.09	0.08	18.81	18.90	0.09
5.848	18.01	18.08	0.07	18.81	18.89	0.08



5.850		18.01	18.09	0.08	18.81	18.90	0.09
5.851		18.02	18.09	0.07	18.81	18.90	0.09
5.852		18.02	18.08	0.06	18.82	18.90	0.08
5.854		18.02	18.13	0.11	18.82	18.94	0.12
5.855		18.02	18.13	0.11	18.82	18.94	0.12
5.856		18.03	18.15	0.12	18.83	18.97	0.14
5.857		18.03	18.15	0.12	18.83	18.96	0.13
5.860		18.04	18.16	0.12	18.83	18.97	0.14
5.861		18.04	18.16	0.12	18.84	18.97	0.13
5.862		18.04	18.16	0.12	18.84	18.97	0.13
5.880	I	18.09	18.17	0.08	18.87	18.98	0.11
5.951	--	17.98	18.19	0.21	18.74	18.99	0.25
5.980	J	18.04	18.25	0.21	18.80	19.05	0.25

Notes: --- Indicates unlettered FEMA cross section  
Shaded cells Indicates new cross section. DEM WSEL at these locations computed by linear interpolation

### Existing Conditions Model (ECM)

No known modifications have occurred within the floodplain since the date of the original analysis. Therefore, no changes were made to the CEM to create the ECM, so the ECM is the same as the CEM.

### Proposed Conditions Model (PCM)

The proposed conditions model incorporates the following features into the ECM: (1) proposed house built on concrete stem walls and ineffective flow zones created by the house (42 feet by 78 feet) and west stair case, (2) placement of fill up to elevation 17 ft, (3) fence posts along the northern boundary (thirty-four 8-inch-diameter posts), and (4) propane tank near the southern boundary (250 gallon tank defined by 4 feet by 6 feet blocked obstruction). HEC-RAS limits twenty blocked obstructions, so the fence post were defined as twenty 1-foot-wide post. All these features except for the fill are defined in the model using blocked obstructions. The fill was defined by changing the elevations of cross section geometry data. Gravel will be placed on the surface of the fill area, so a Manning's roughness coefficient of 0.035 was assigned to the portion of the cross section with fill material. **Figure 4** shows the location of the proposed house. **Figure 5** shows the site plan for the property. **Figure 6** shows cross section plots of the blocked obstructions and geometry changes that were made in the PCM. **Appendix B** provides comparison plots for all of the added cross sections.

## Analysis Results

Water surface elevations predicted by the ECM and PCM models were compared to determine if the proposed development would result in a rise in either the regulatory or floodway base flood water surface elevations. **Table 3** presents the computed water surface elevations for the ECM and PCM, and the calculated difference. As the table indicates, the proposed development will not result in a rise in the regulatory and the floodway water surface elevations along the Nehalem River. **Figure 7** provides a FEMA No-Rise Certificate for the proposed development.

Table 3 – Proposed Conditions Model vs. Existing Conditions Model

River Station (RM) and FEMA XS Letter		Regulatory Water Surface Elevation (ft)			With Floodway Water Surface Elevation (ft)		
		ECM	PCM	Difference (PCM - ECM)	ECM	PCM	Difference (PCM - ECM)
5.55	H	17.54	17.54	0.00	18.39	18.39	0.00
5.65	--	17.50	17.50	0.00	18.34	18.34	0.00
5.79	--	17.86	17.86	0.00	18.70	18.70	0.00
5.841	--	18.05	18.04	-0.01	18.87	18.86	-0.01
5.842	--	18.05	18.04	-0.01	18.87	18.86	-0.01
5.843	--	18.05	18.04	-0.01	18.87	18.86	-0.01
5.844	--	18.05	18.04	-0.01	18.87	18.85	-0.02
5.845	--	18.05	18.04	-0.01	18.87	18.85	-0.02
5.846	--	18.08	18.07	-0.01	18.90	18.89	-0.01
5.847	--	18.09	18.08	-0.01	18.90	18.89	-0.01
5.848	--	18.08	18.08	0.00	18.89	18.88	-0.01
5.850	--	18.09	18.08	-0.01	18.90	18.89	-0.01
5.851	--	18.09	18.08	-0.01	18.90	18.89	-0.01
5.852	--	18.08	18.08	0.00	18.90	18.89	-0.01
5.854	--	18.13	18.12	-0.01	18.94	18.93	-0.01
5.855	--	18.13	18.13	0.00	18.94	18.94	0.00
5.856	--	18.15	18.14	-0.01	18.97	18.96	-0.01
5.857	--	18.15	18.14	-0.01	18.96	18.96	0.00
5.860	--	18.16	18.15	-0.01	18.97	18.97	0.00
5.861	--	18.16	18.15	-0.01	18.97	18.97	0.00
5.862	--	18.16	18.15	-0.01	18.97	18.97	0.00
5.880	I	18.15	18.15	0.00	18.95	18.95	0.00
5.951	--	18.17	18.17	0.00	18.96	18.96	0.00
5.980	J	18.23	18.23	0.00	19.02	19.01	-0.01

If you have any questions, please feel free to contact me by phone at (503) 485-5490, or by email at [cbahner@westconsultants.com](mailto:cbahner@westconsultants.com).

## References

U.S. Army Corps of Engineers Hydrologic Engineering Center, *HEC-RAS River Analysis System, Version 6.6*, September 2025.

U.S. Department of Homeland Security, Federal Emergency Management Agency; Flood Insurance Study for Tillamook County, OR and Incorporated Areas, 41057C002A, Vol. 1 and 2; Effective September 28, 2018

U.S. Department of Homeland Security, *Federal Emergency Management Agency; Letter of Map Revision, Case No. 14-10-1695P*; Effective September 24, 2015



U.S. Department of Homeland Security, Federal Emergency Management Agency, *Guidance for Flood Risk Analysis and Mapping, Floodway Analysis and Mapping*; November 2023

Oregon Department of Geology and Mineral Industries; *Light Detection and Ranging (LiDAR) data; OLC North Coast 2020*; Published August 2009

WEST Consultants, Inc., *Technical Memorandum, Subject: Nehalem Bay Wastewater Agency, No-Rise Analysis and Certification*, April 2021.

## Appendix A

### Figures



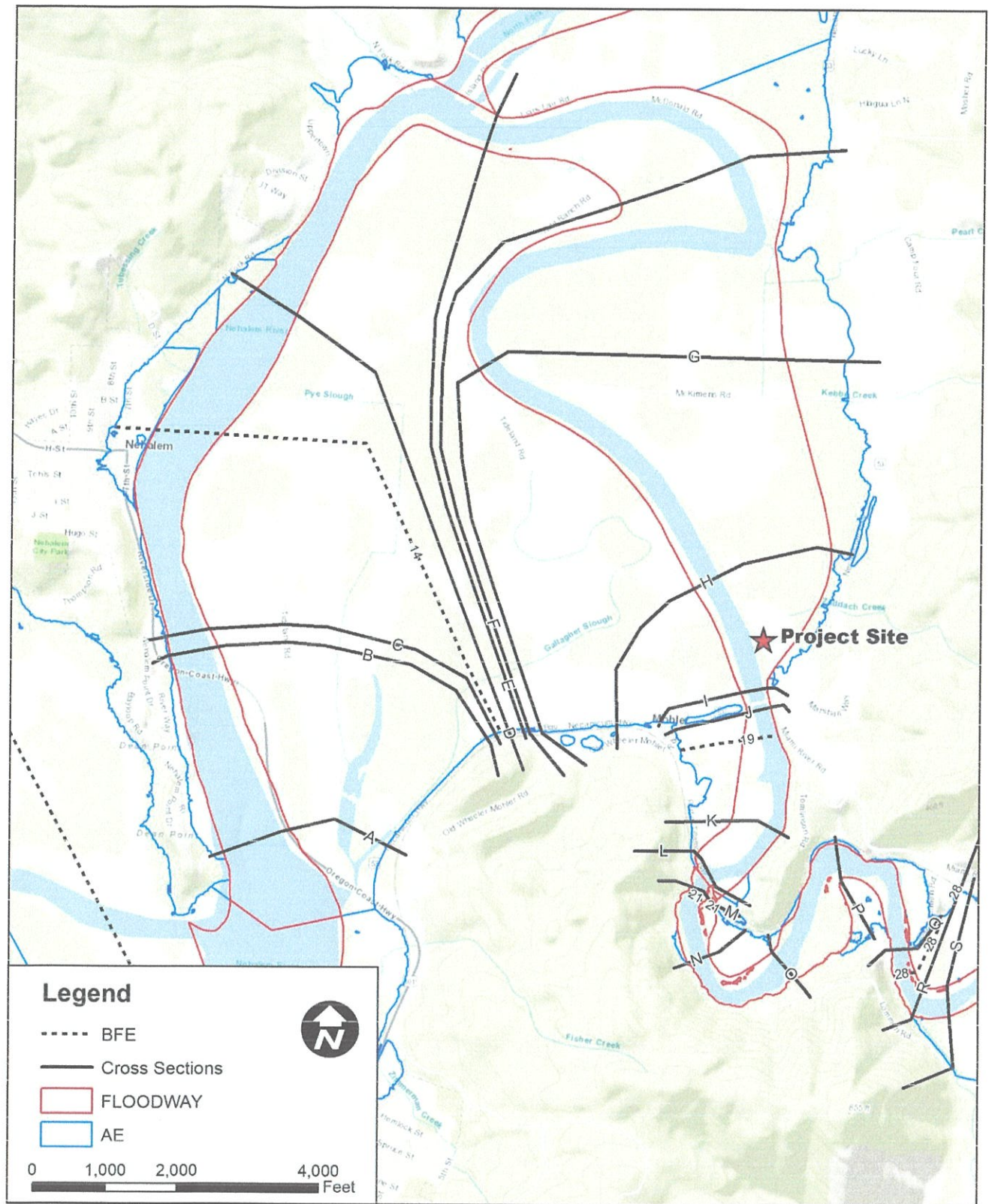


Figure 1 - Study area with effective FEMA flood hazard mapping

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,360	1,045	15,503	4.8	13.1	13.1	13.5	0.4
B	5,178	675	13,824	5.2	13.6	13.6	14.0	0.4
C	5,455	617	13,139	5.5	13.7	13.7	14.0	0.3
D	10,617	740	14,543	4.9	14.8	14.8	15.3	0.5
E	15,349	570	9,568	6.5	15.5	15.5	15.9	0.4
F	19,086	2,480	20,374	6.0	16.2	16.2	17.0	0.8
G	25,158	4,388	41,742	3.8	17.5	17.5	18.4	0.9
H	29,642	1,813	12,272	8.1	17.5	17.5	18.4	0.9
I	31,318	349	6,529	9.0	18.0	18.0	18.8	0.8
J	31,608	270	6,183	9.6	18.0	18.0	18.8	0.8
K	33,368	734	9,487	8.7	20.3	20.3	20.7	0.4
L	34,492	670	9,877	7.1	20.8	20.8	21.7	0.9
M	34,620	346	7,700	7.7	20.8	20.8	21.7	0.9
N	35,660	326	7,069	8.3	23.8	23.8	24.3	0.5
O	37,350	491	11,908	4.9	25.9	25.9	26.4	0.5
P	39,090	532	10,916	5.4	26.6	26.6	27.1	0.5
Q	40,680	236	6,670	8.8	27.4	27.4	27.9	0.5
R	41,490	455	10,047	5.8	28.8	28.8	29.4	0.6
S	41,890	435	9,623	5.9	29.0	29.0	29.6	0.6
T	42,830	285	6,434	8.8	29.5	29.5	30.3	0.8
U	43,210	378	8,062	7.1	30.7	30.7	31.2	0.5
V	45,790	370	7,391	7.7	32.4	32.4	32.9	0.5
W	47,330	593	8,370	6.7	32.9	32.9	33.7	0.8
X	48,885	631	12,388	4.5	33.7	33.7	34.7	1.0

<sup>1</sup>Feet above confluence with Nehalem Bay

TABLE 24	FEDERAL EMERGENCY MANAGEMENT AGENCY		FLOODWAY DATA	
	TILLAMOOK COUNTY, OREGON			
	AND INCORPORATED AREAS		FLOODING SOURCE: NEHALEM RIVER	

Figure 2 - Effective Floodway Data Table



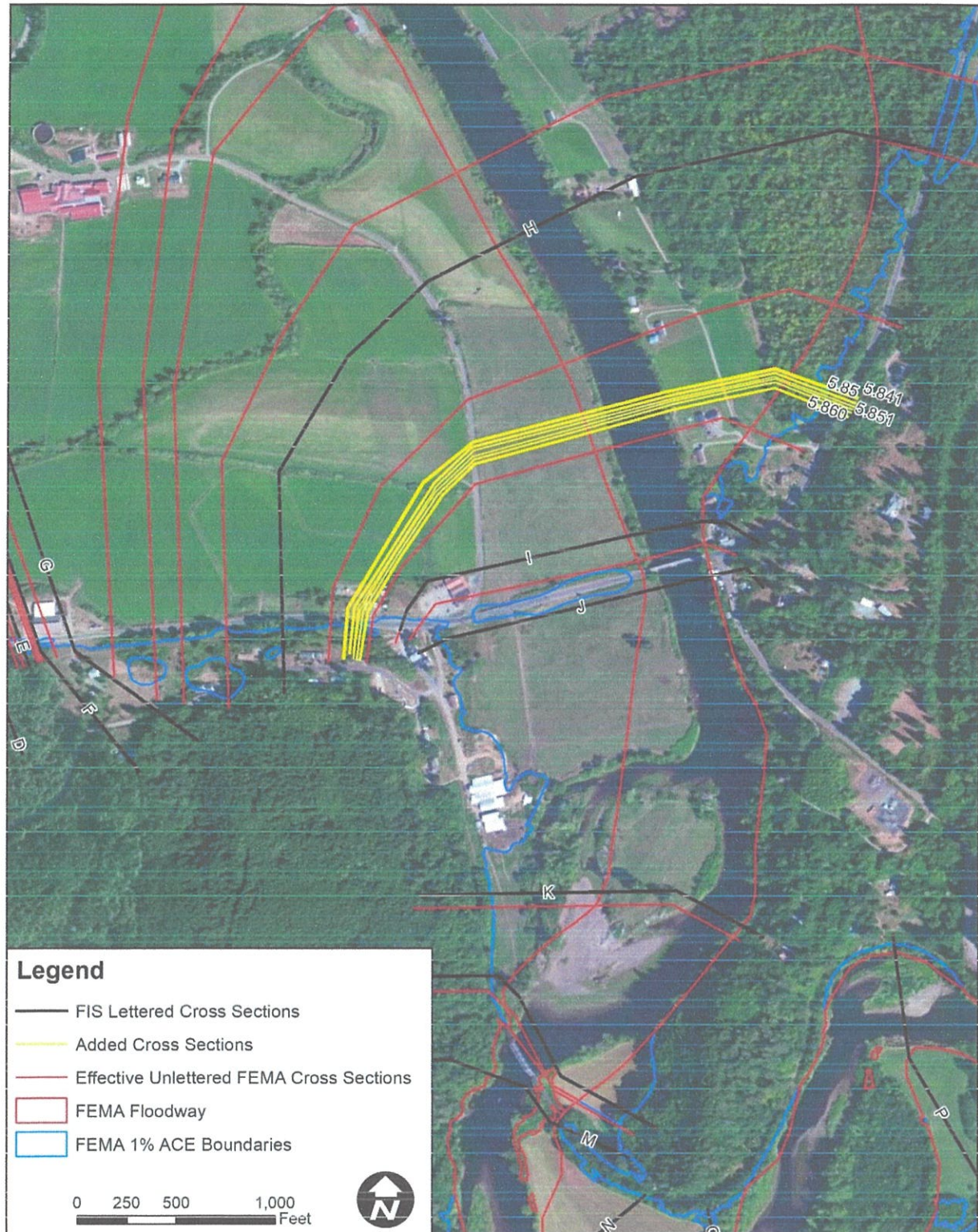






Figure 4 – Proposed house and property limits



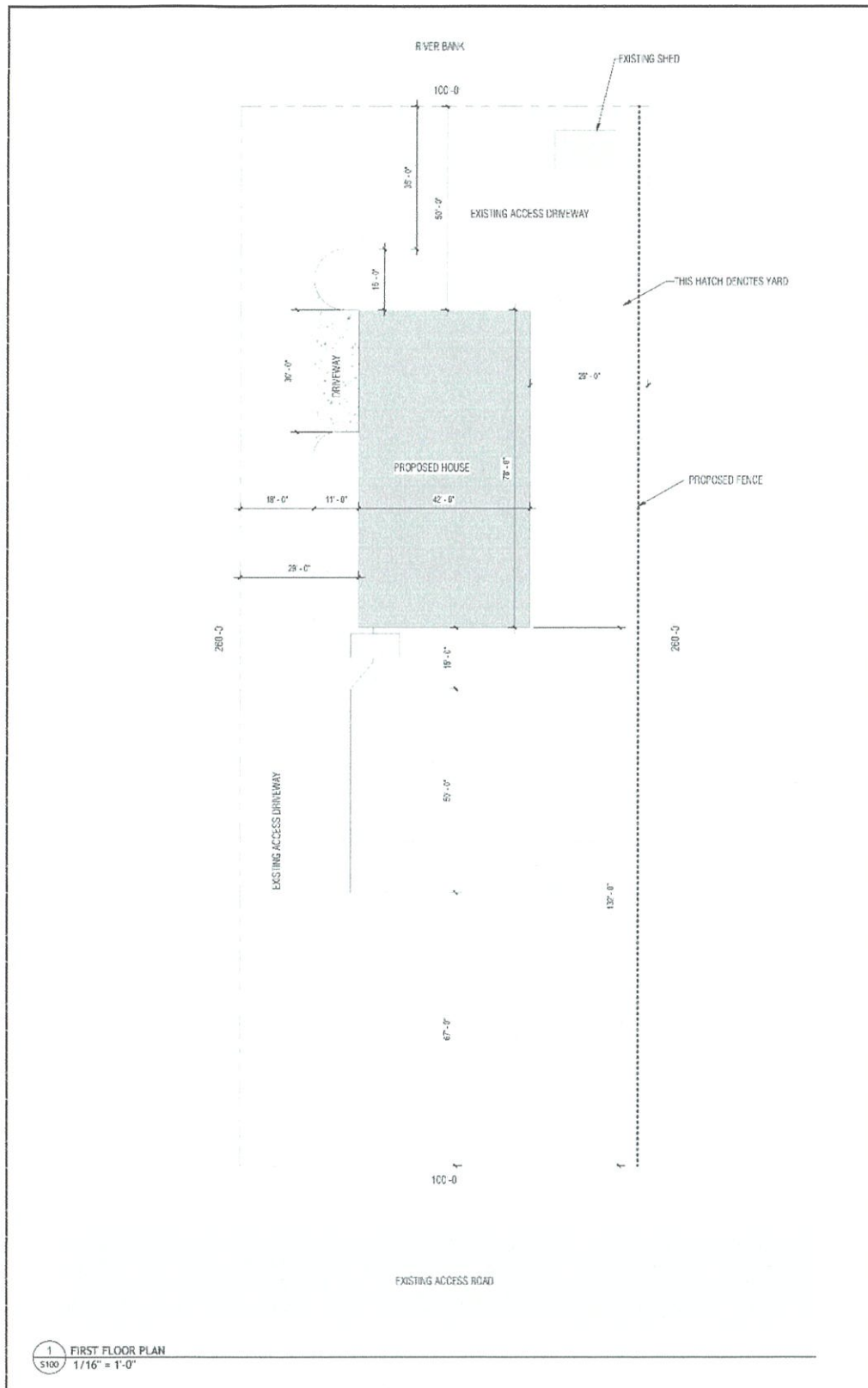


Figure 5 – Site plan

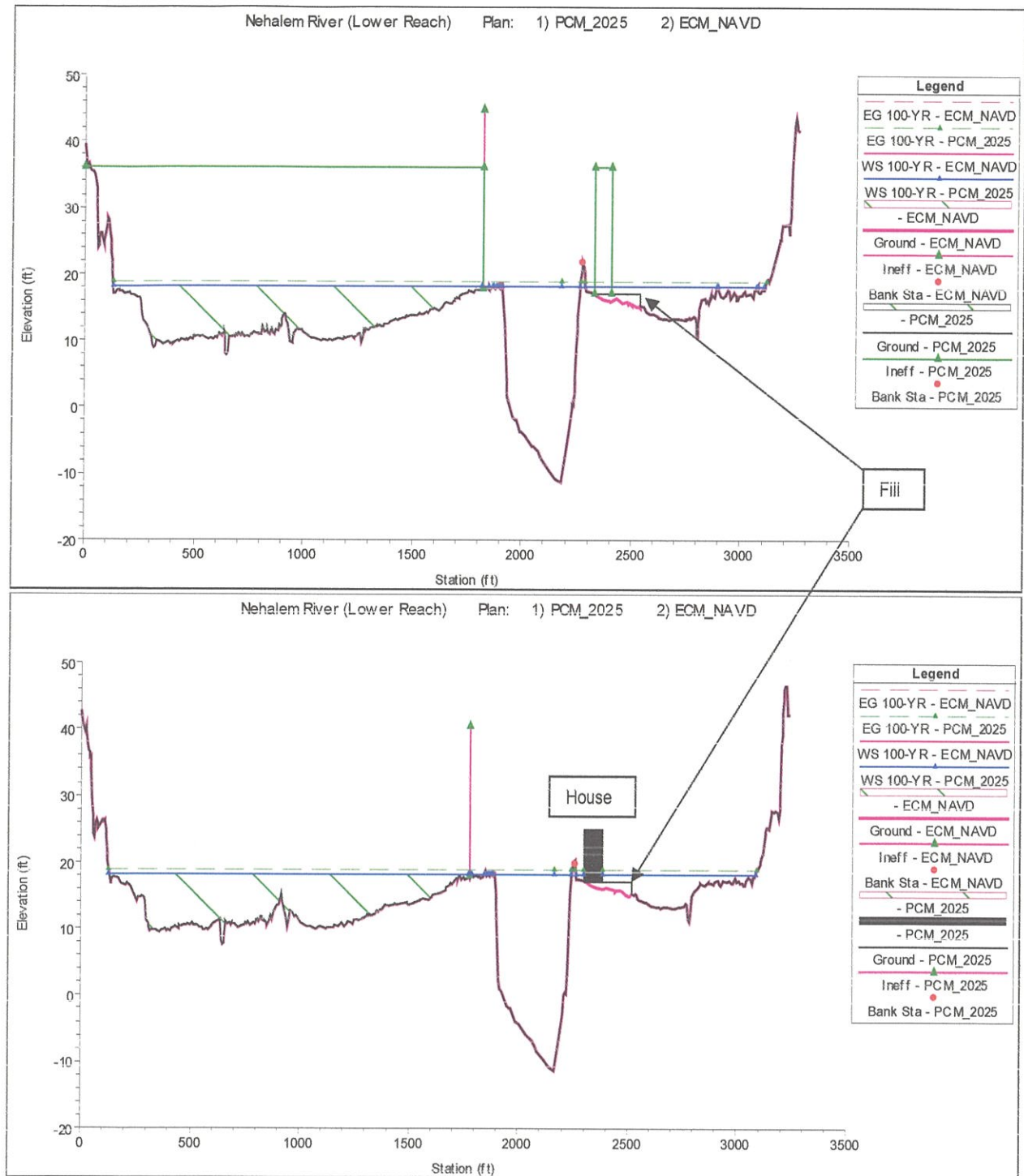


Figure 6 – Plot showing the type of changes made for the PCM



Tillamook County  
*Community Name*

Proposed Development on Tax Lot 1704  
*Development Name*

Tax Lot 1704 on Tax Map 03N10W25  
*Lot/Property Designation*

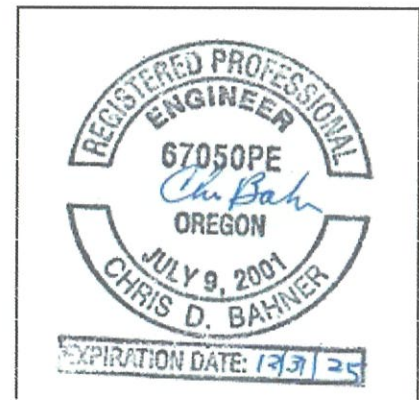
Jake Bruns  
*Property Owner*

This is to certify that I am a duly qualified engineer licensed to practice in the State of Oregon.

It is to further certify that the attached technical data supports the fact that the proposed house, fill, and other structure features will not impact the -percent annual chance (100-year) flood elevations, floodway elevations, or floodway widths on the Nehalem River at published and unpublished sections in the Flood Insurance Study for Tillamook County & Incorporated Areas (41057C002A) dated September 28, 2018. The data submitted herewith in support of this request are accurate to the best of my knowledge, that the analyses have been performed correctly and in accordance with sound engineering practice.

23 June 2025

**Date**



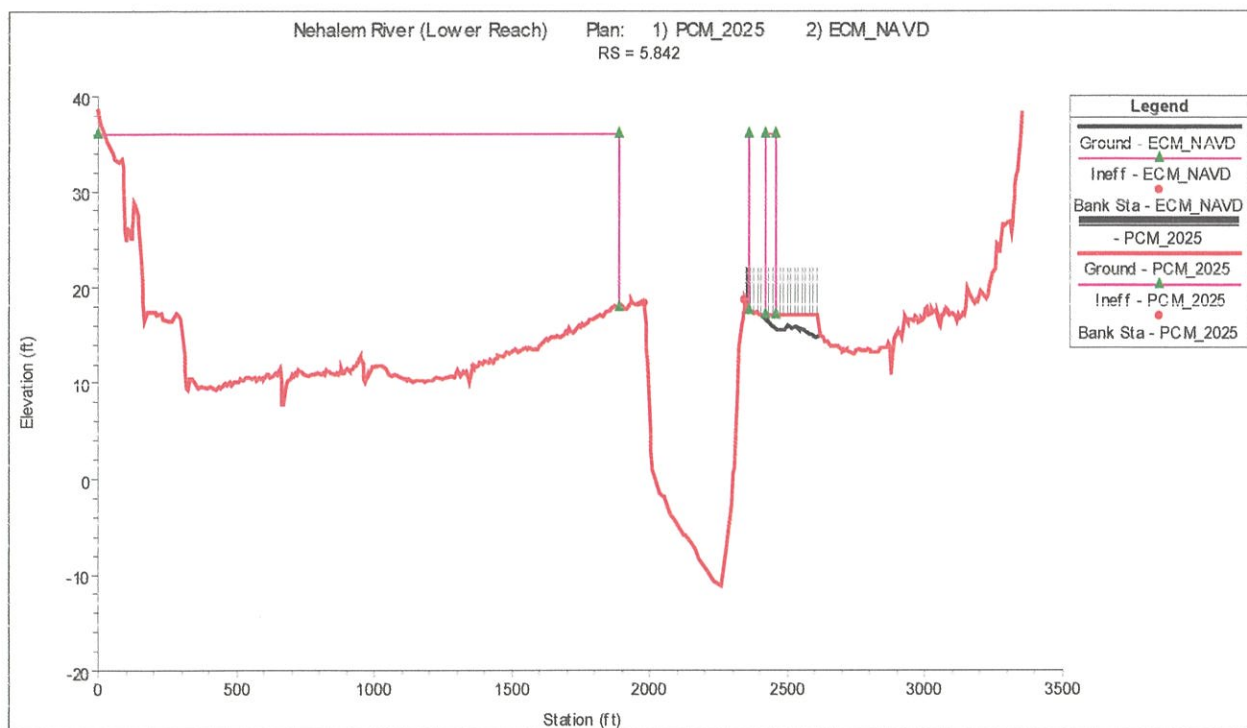
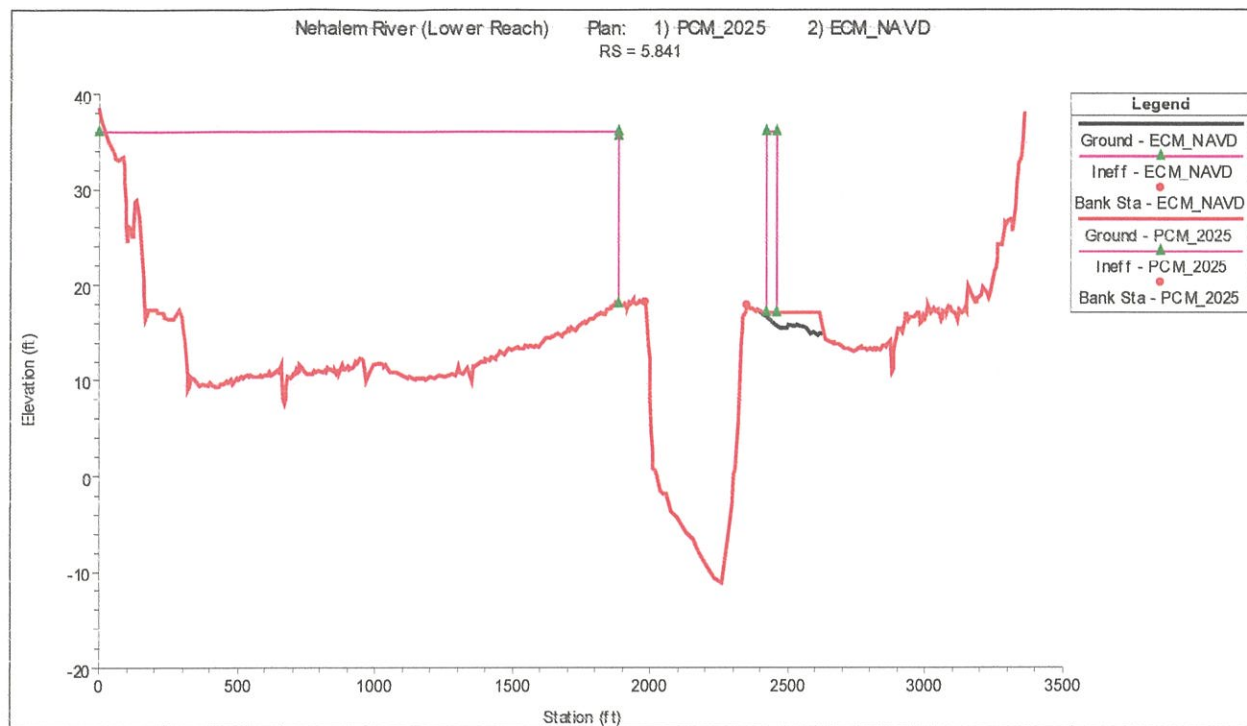
Engineers Stamp

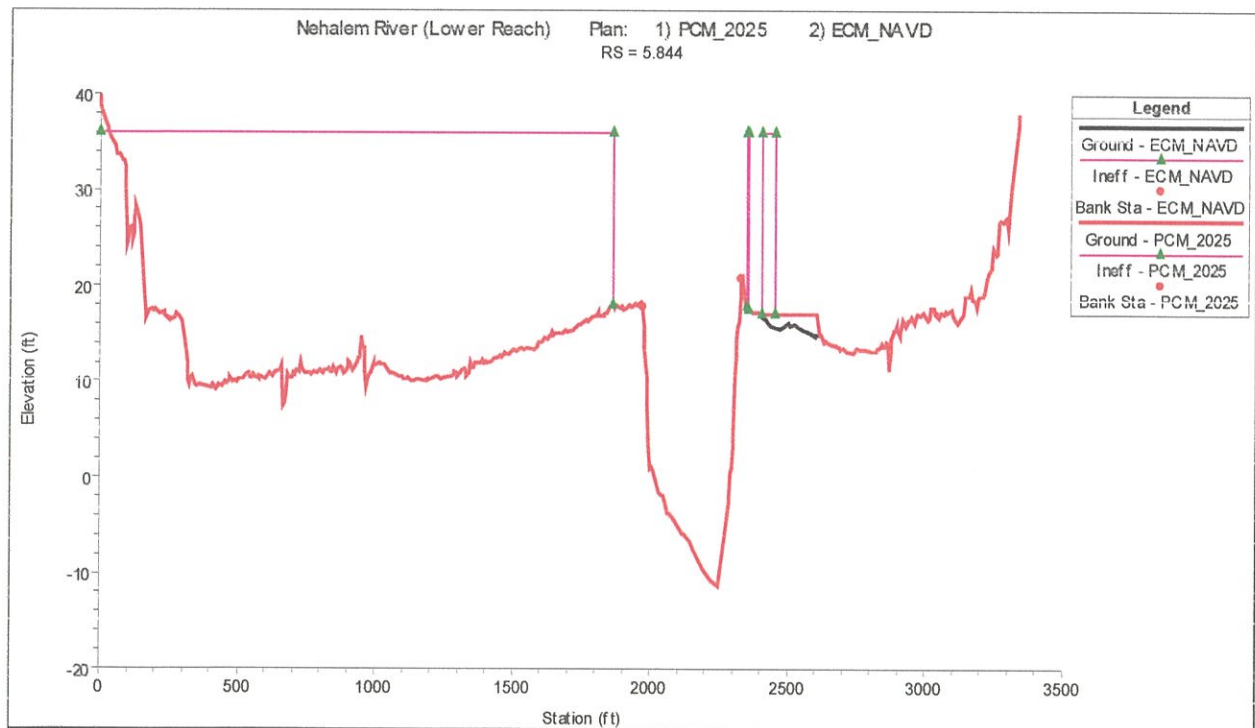
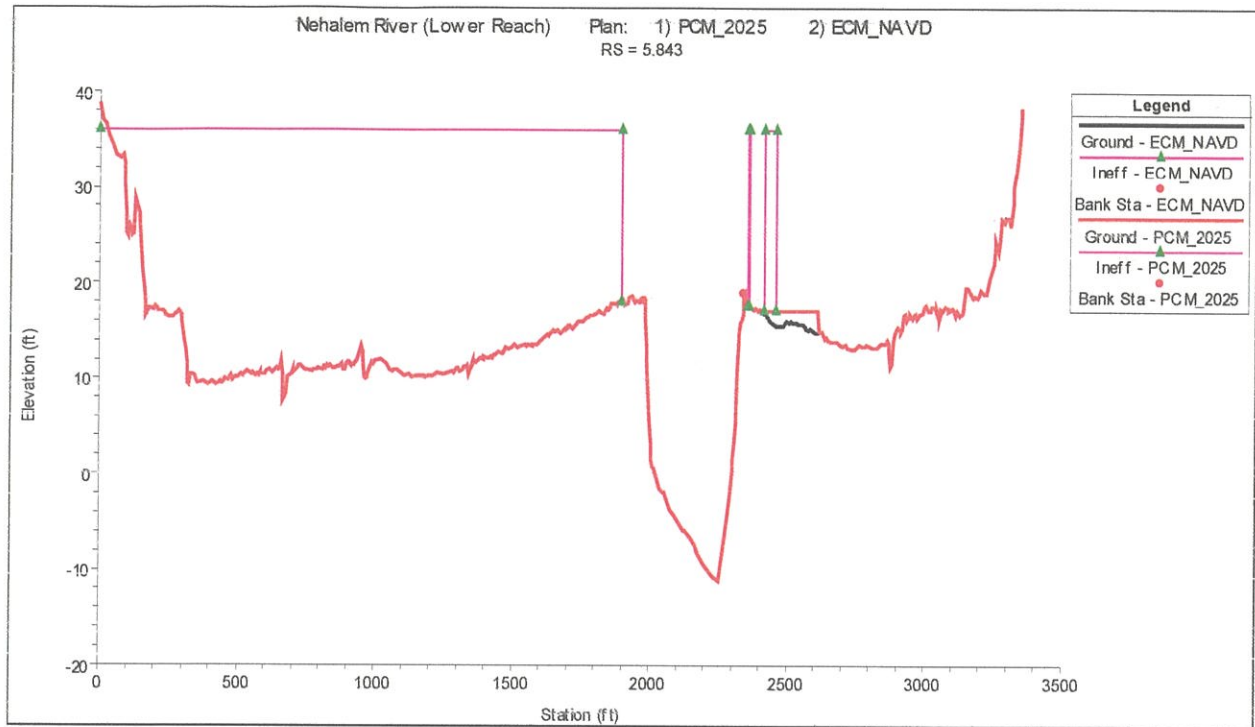
Figure 7 – No-Rise Certification

## **Appendix B**

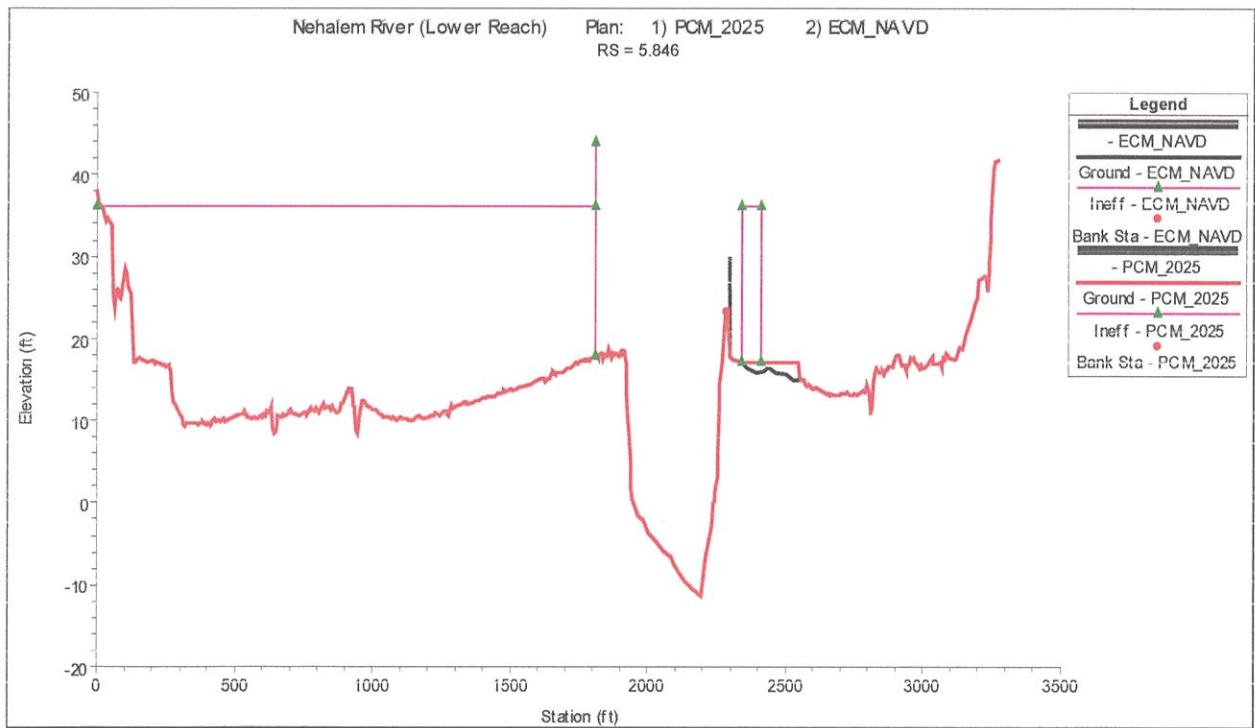
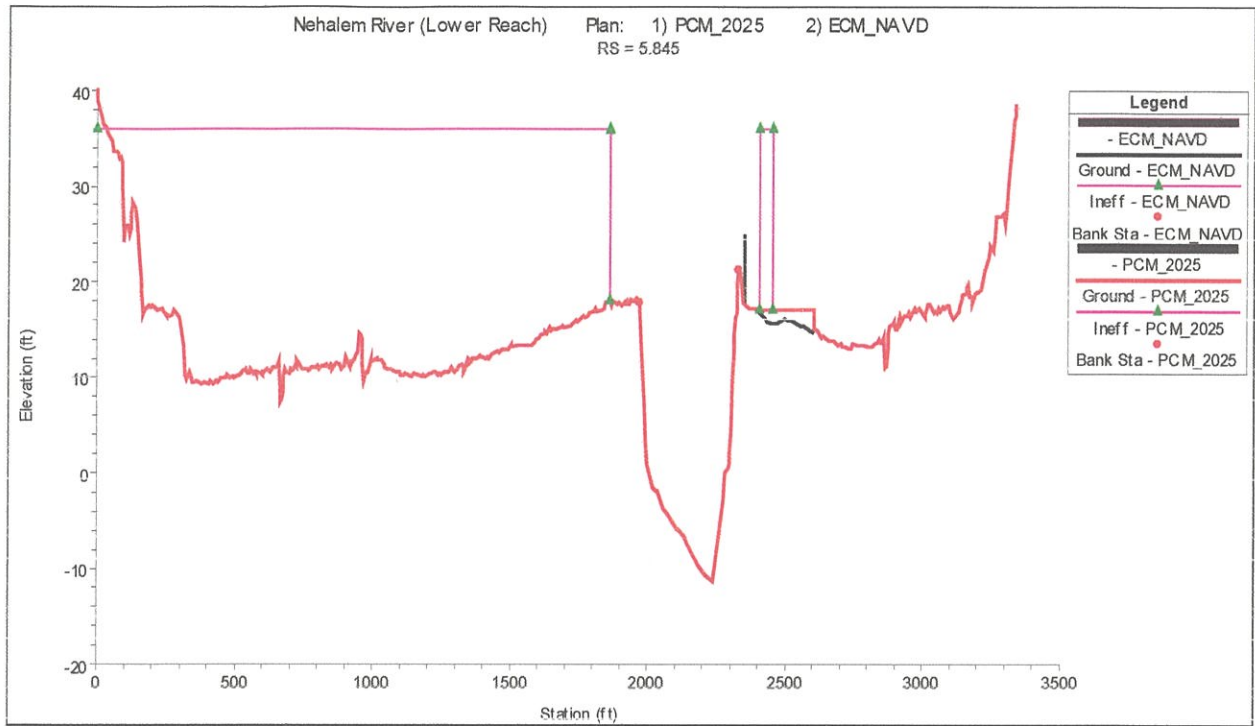
### **Comparison of Cross Section Plots**

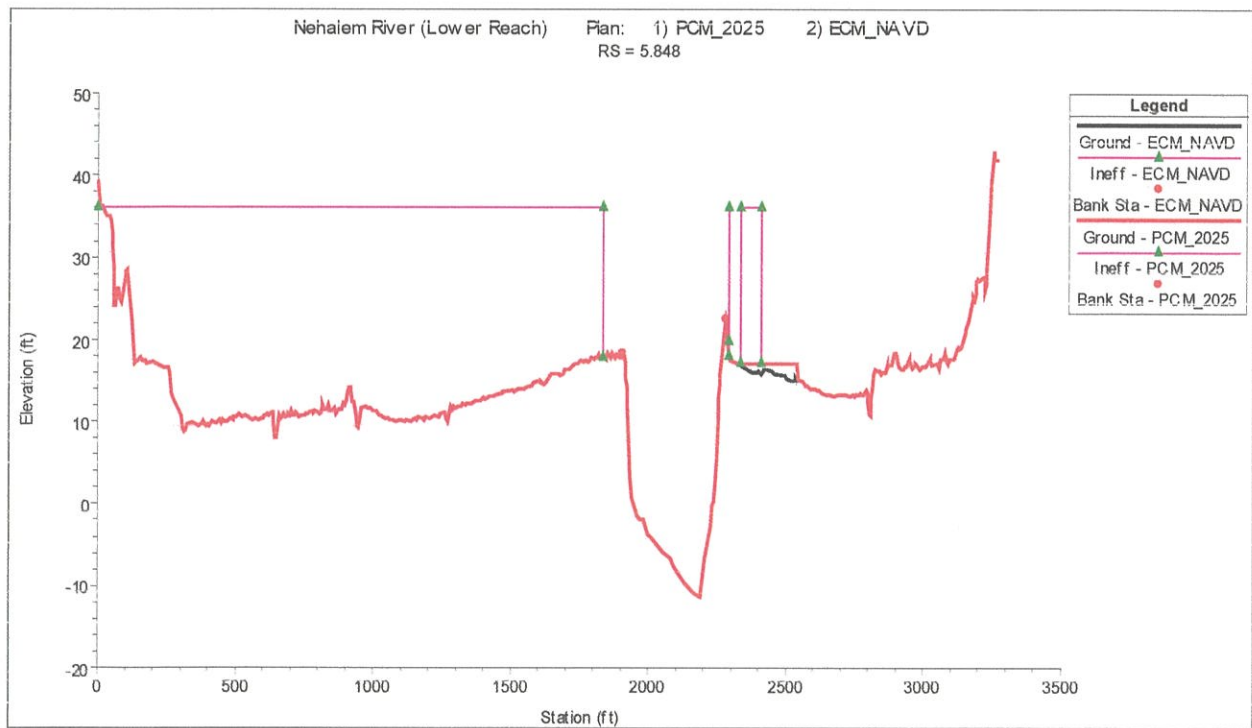
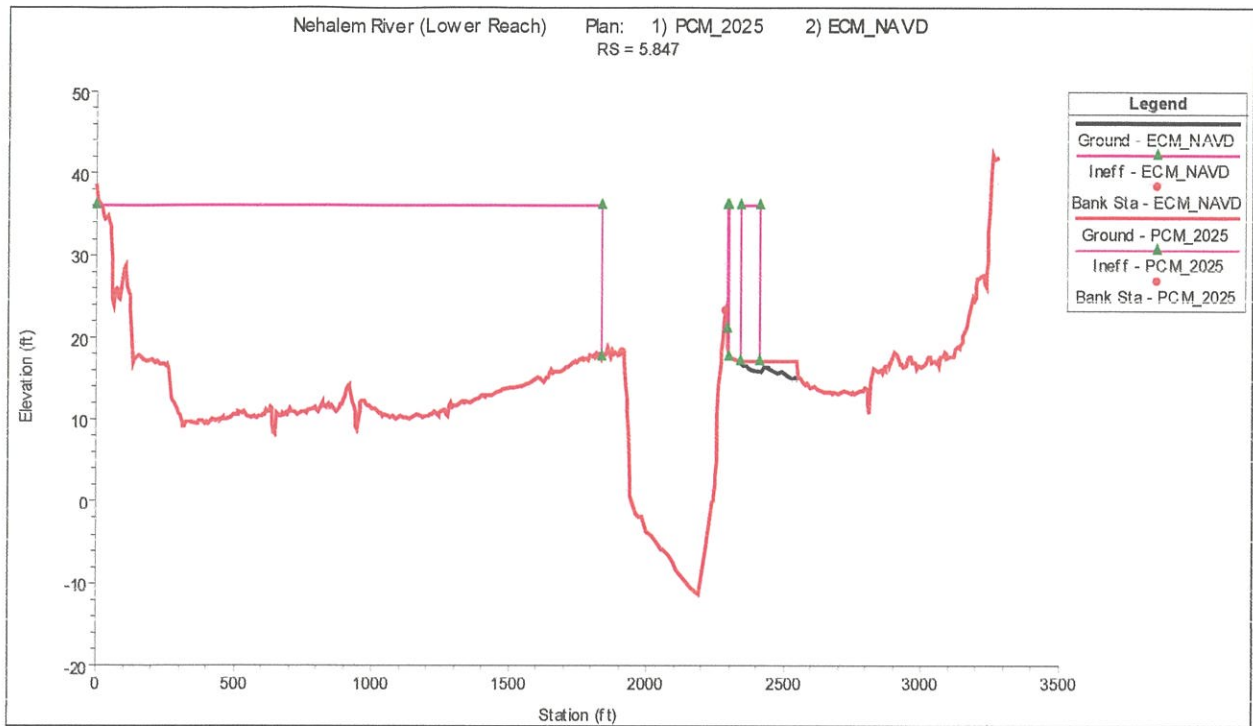




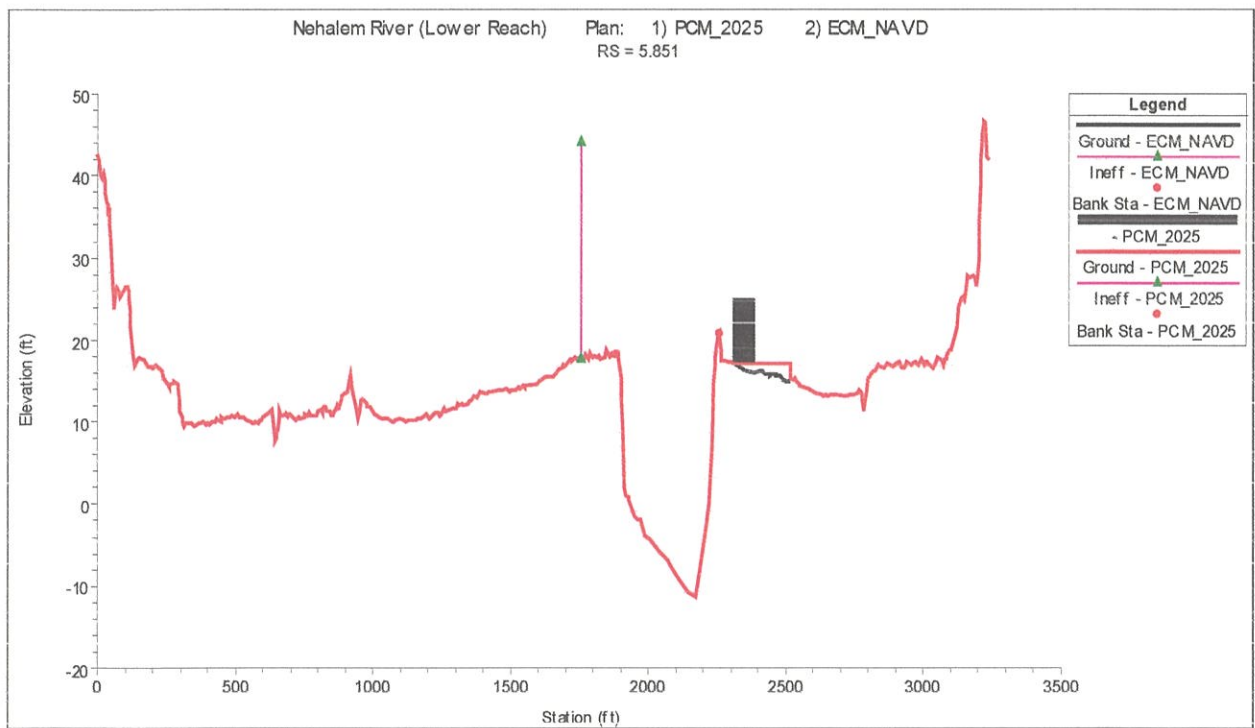
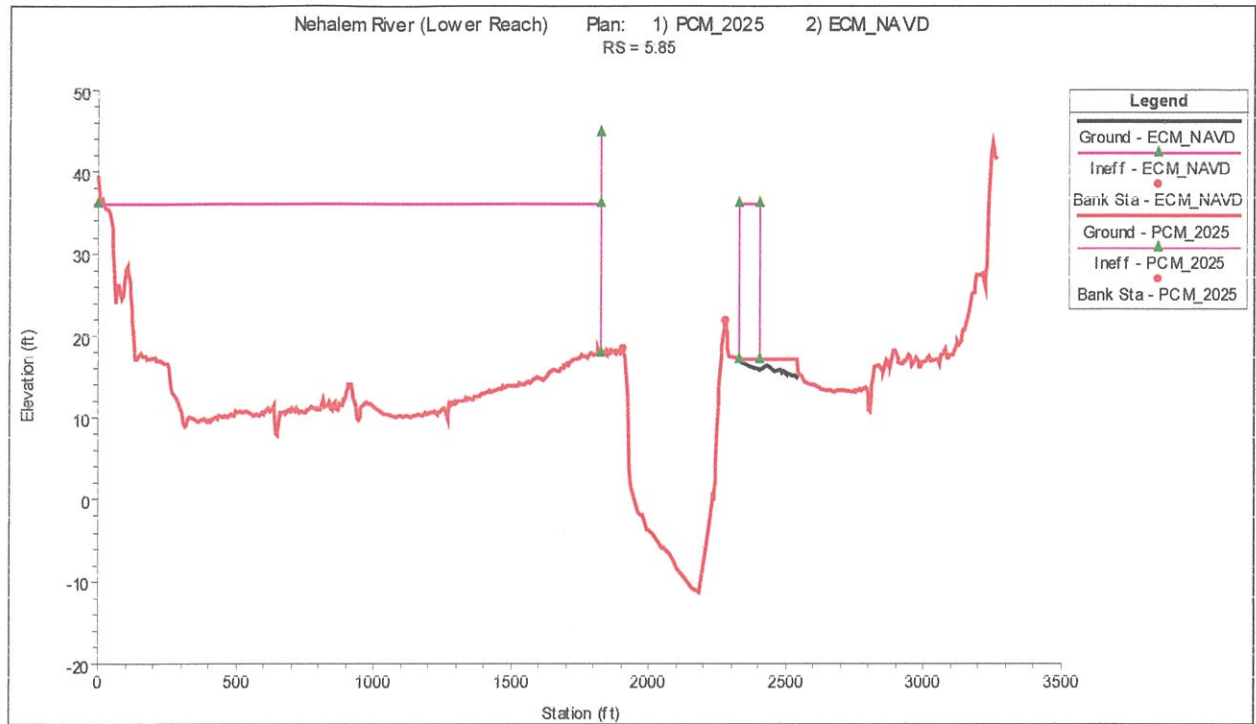


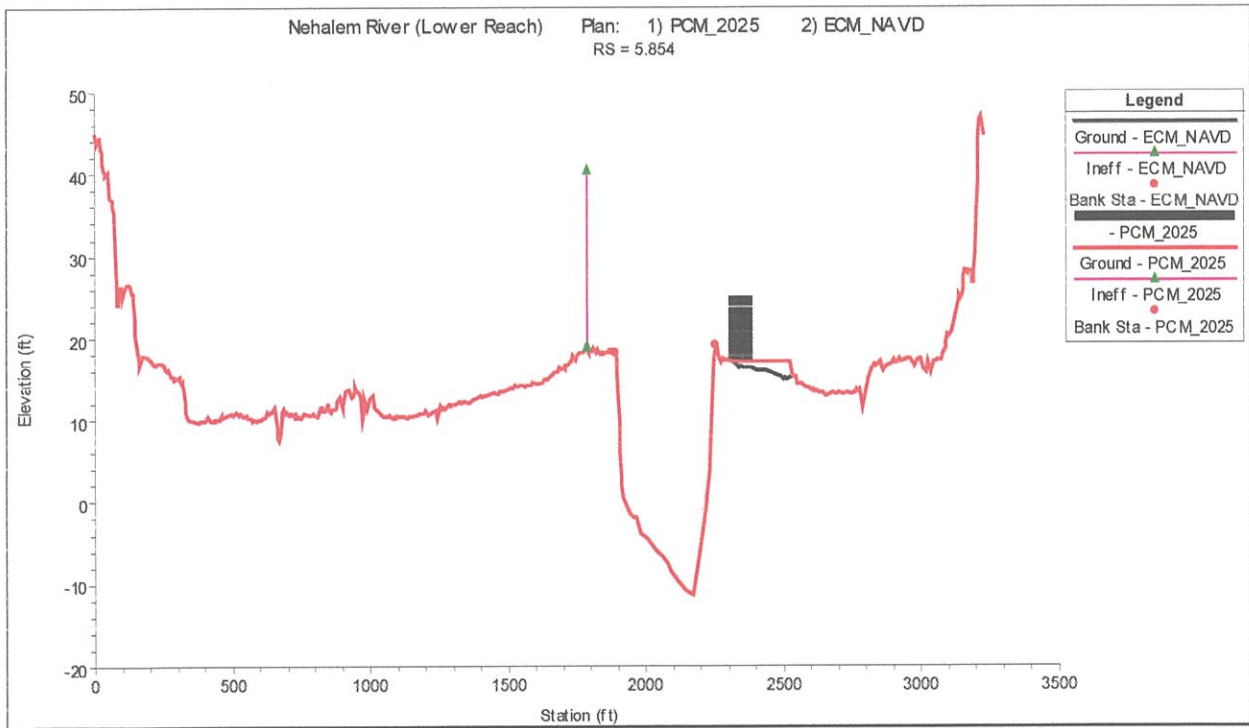
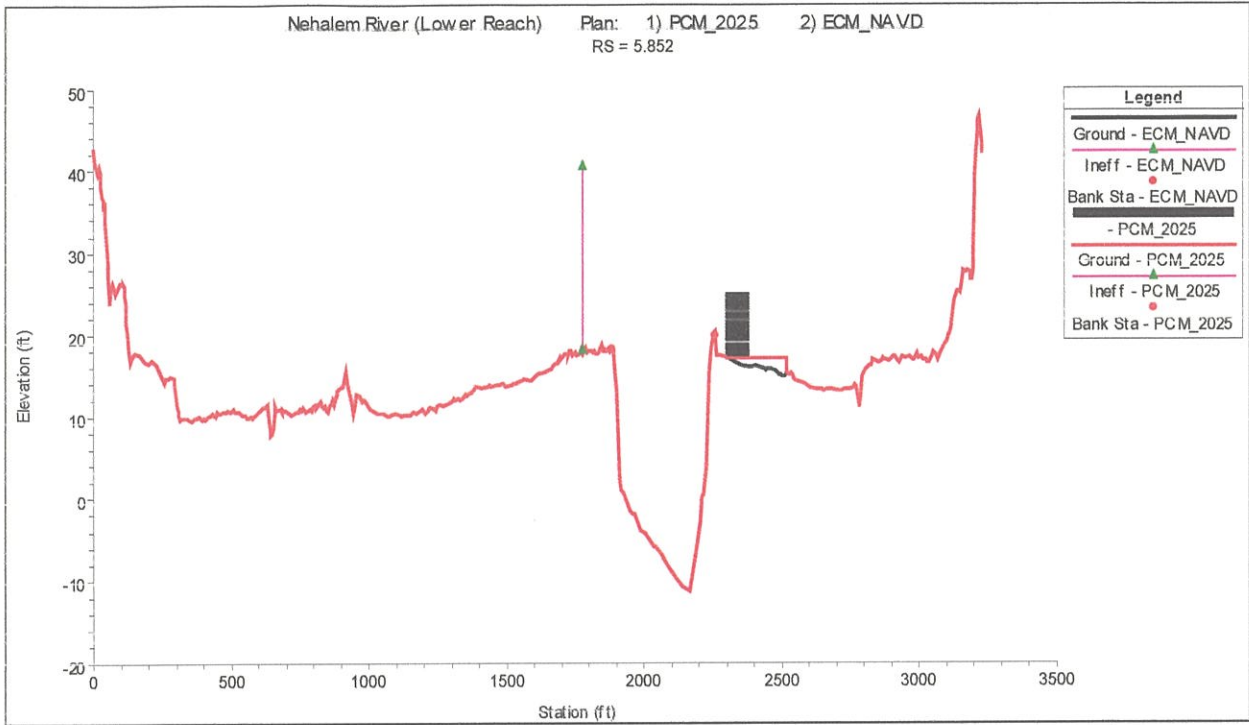




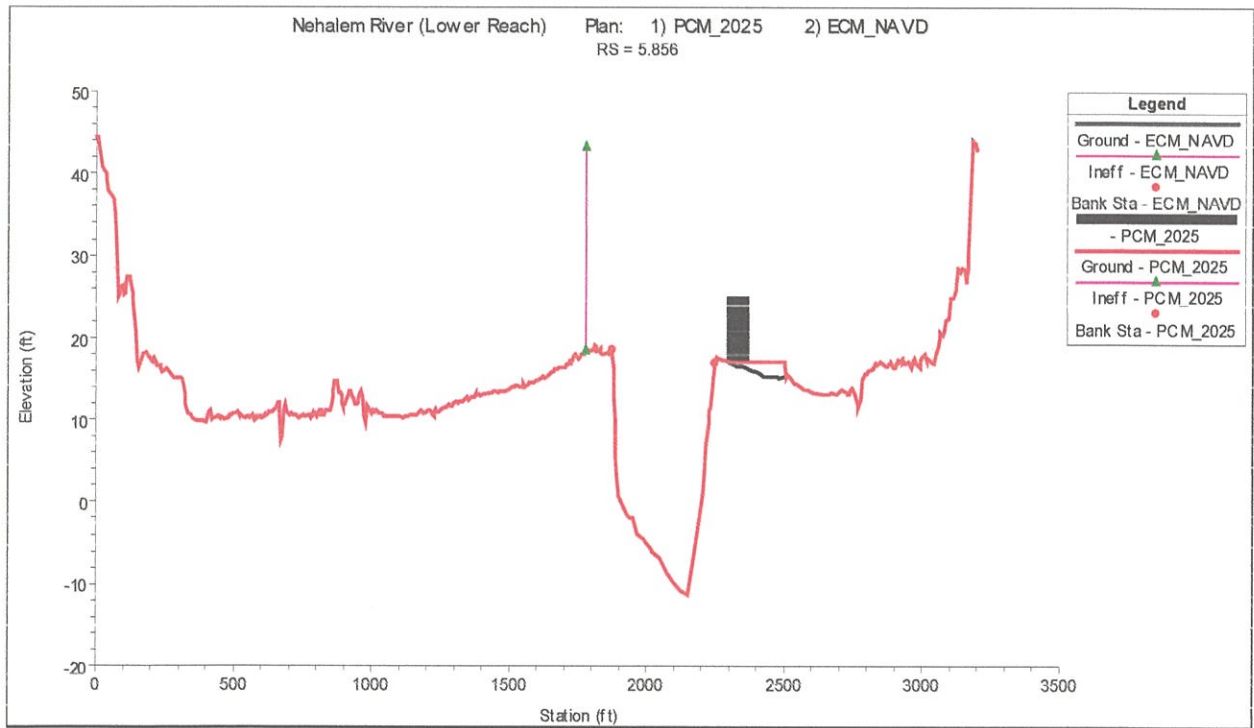
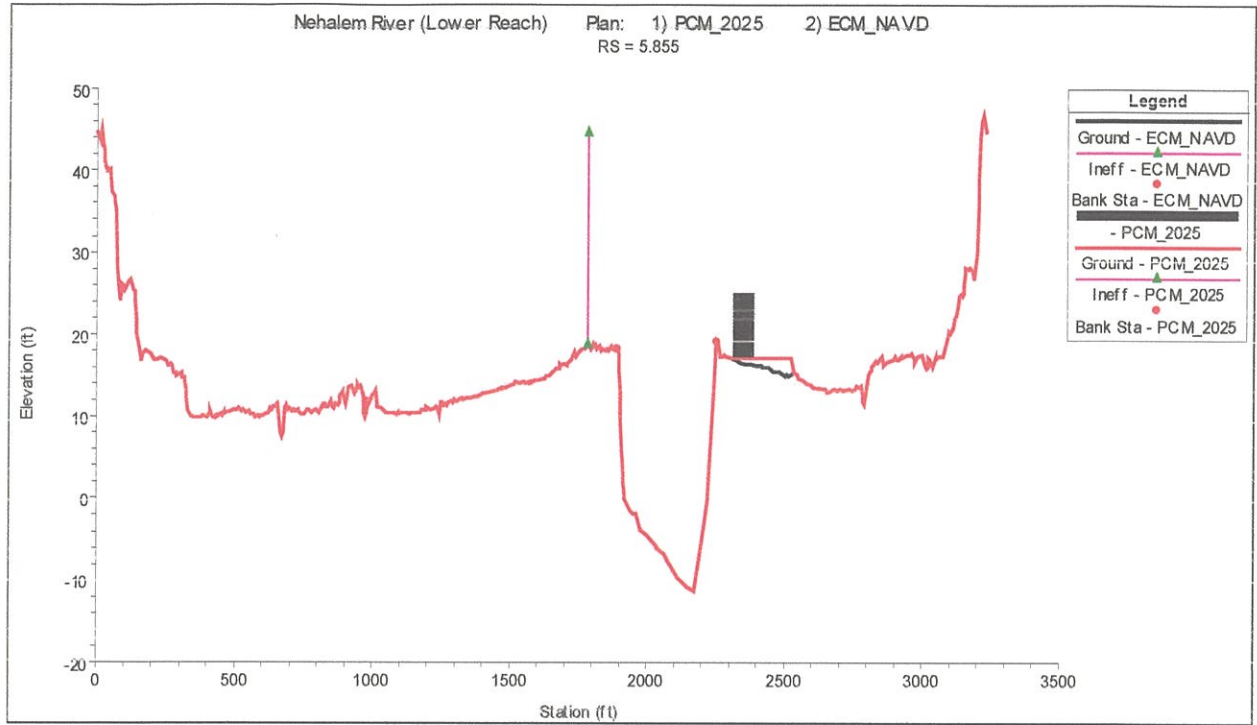


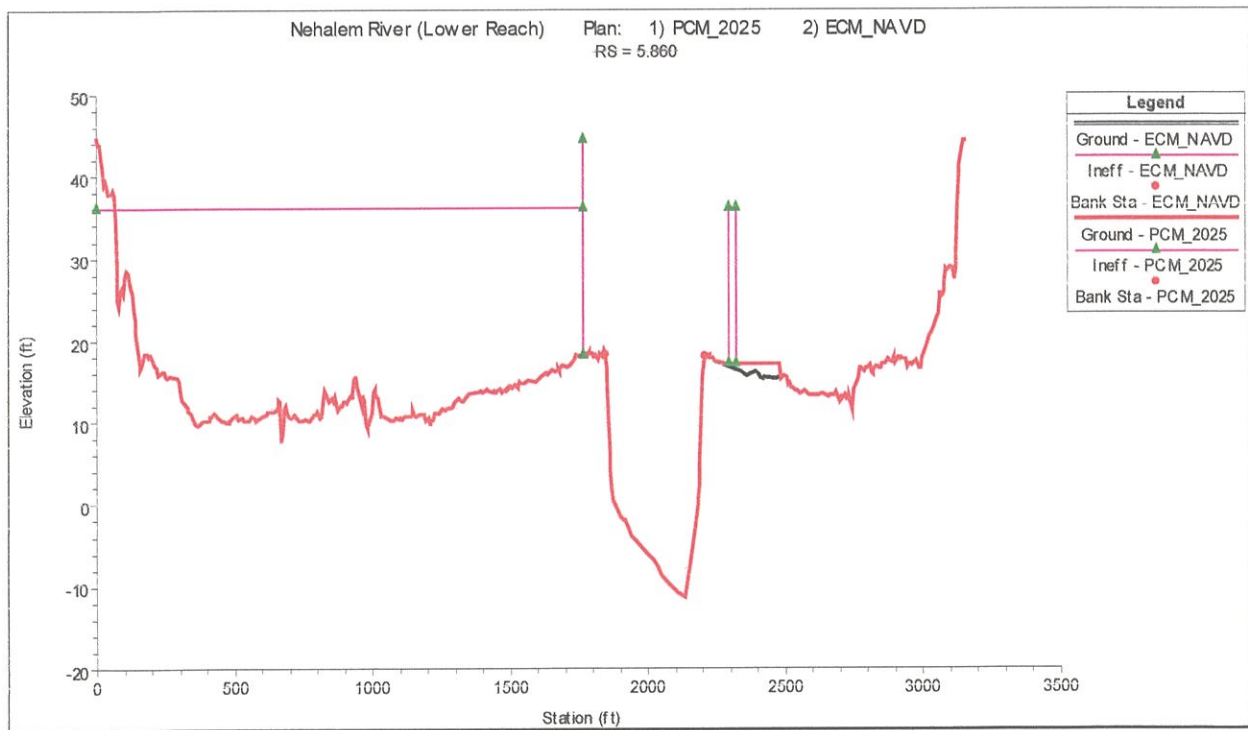
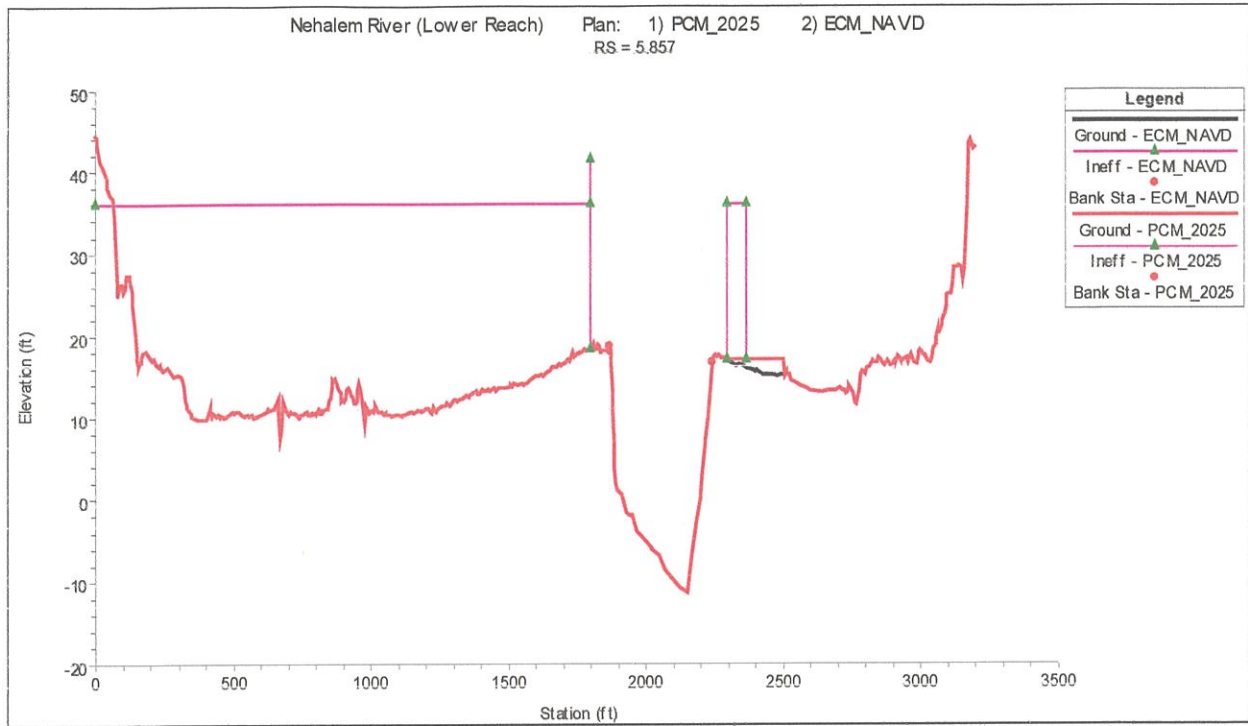




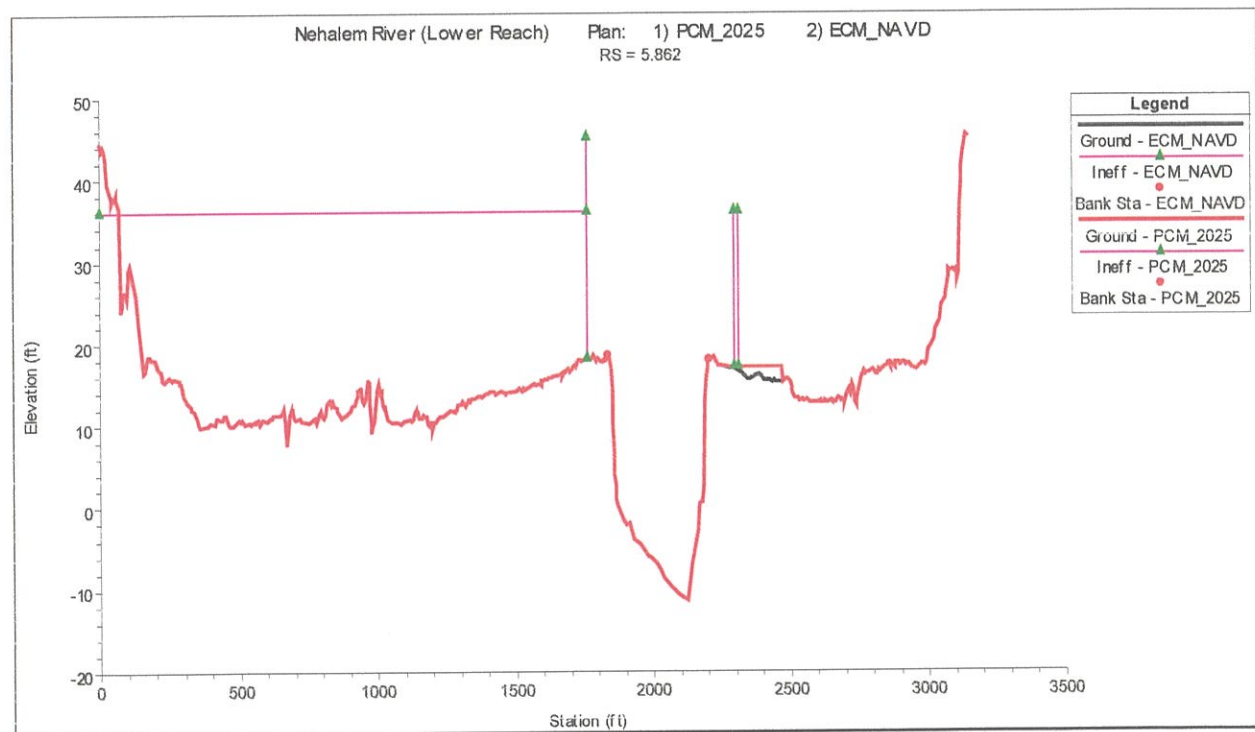
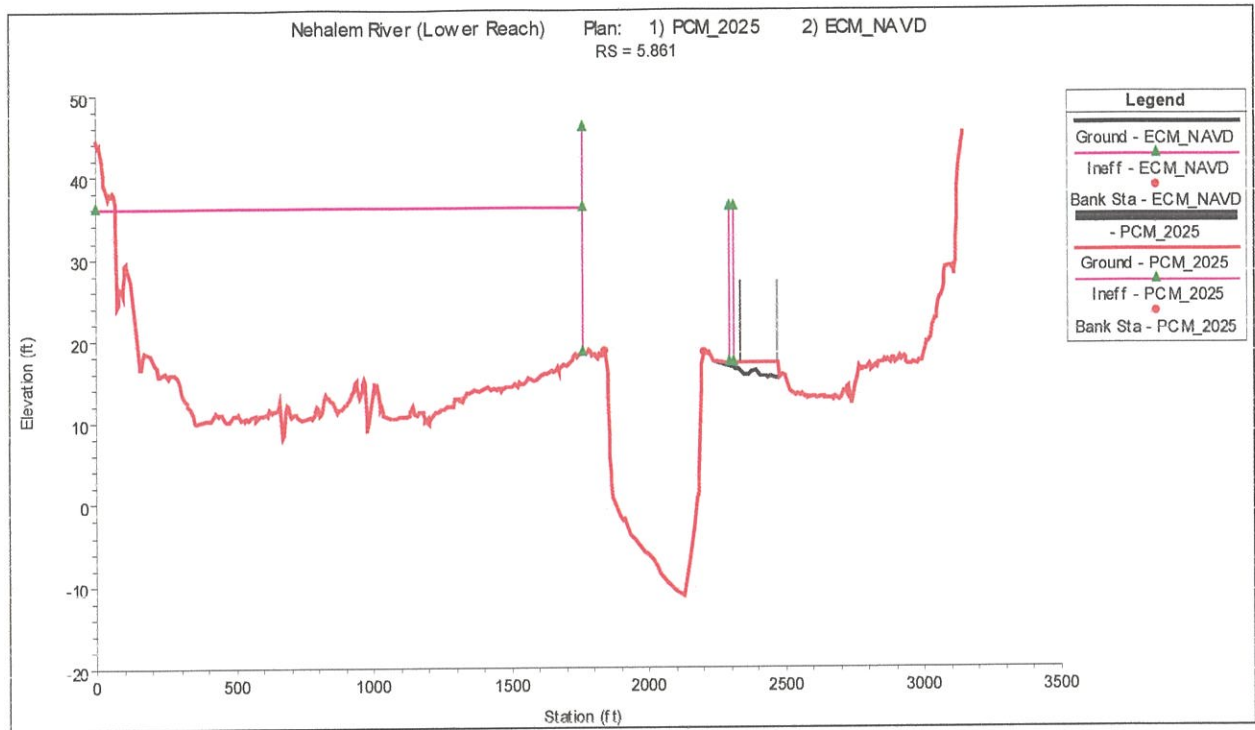












ADDITIONAL  
CONSTRUCTION  
PLANS ARE TOO  
LARGE TO SCAN.  
PLEASE VISIT THE  
DCD OFFICE TO  
VIEW THESE  
DOCUMENTS.



# EXHIBIT C

## Melissa Jenck

---

**From:** BRADLEY Robert \* ODFW <Robert.BRADLEY@odfw.oregon.gov>  
**Sent:** Thursday, October 16, 2025 10:45 AM  
**To:** Melissa Jenck  
**Subject:** EXTERNAL: RE: 851-24-000640-PLNG: Notice of Application

**[NOTICE: This message originated outside of Tillamook County -- DO NOT CLICK on links or open attachments unless you are sure the content is safe.]**

Melissa,

A few comments on this application:

1. The attached drawings do not adequately show the location of the proposed house relative to the estuary setback. The drawing provided in the no rise analysis appears to show a 50 foot setback from the top of bank to the "proposed house" but does not specify if that includes the concrete pads, stairs, etc. as shown in the hand written drawing provided by the applicant. The hand drawing shows a 35 and 50 foot distance from something but does not specify. ODFW recommends all construction be located outside the estuary setback, including the concrete pads, parking area, and stairs.
2. ODFW recommends all riparian vegetation and tree(s) remain and be protected during and after construction. There appears to be at least one large spruce tree in the riparian area (a valuable habitat feature). The tree(s) should not become a "hazard" to the new construction if permitted. The applicant should consider siting the house further away from the tree if there is a concern.
3. The applicant would need to contact the National Marine Fisheries Service for a determination of listed fish species "take" as necessary. ESA listed coho salmon are present.
4. Note that the aerial photo in the no rise analysis does not show a shed or driveway on the property. Were these previously permitted by the county? Both features appear to be within the estuary setback. If this was an unpermitted activity, ODFW recommends the applicant work with the county to properly permit the construction, and that mitigation measures be applied to offset impacts to the riparian area. Consider requiring the shed to be removed or moved outside of the setback along with restoration of the riparian area.

Robert

Robert W. Bradley  
District Fish Biologist  
Oregon Department of Fish and Wildlife  
North Coast Watershed District  
4907 Third St  
Tillamook, OR 97141  
503-842-2741 x18613 (w)  
503-842-8385 (fax)

---

**From:** Melissa Jenck <Melissa.Jenck@tillamookcounty.gov>  
**Sent:** Friday, October 10, 2025 1:32 PM  
**To:** Melissa Jenck <Melissa.Jenck@tillamookcounty.gov>  
**Cc:** Sarah Thompson <sarah.thompson@tillamookcounty.gov>  
**Subject:** 851-24-000640-PLNG: Notice of Application