



PLANNING COMMISSION WORK SESSION AGENDA

Monday, September 26, 2016 - 6:00 PM

City Hall, Conference Room A, 169 SW Coast Highway, Newport, Oregon 97365

The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired, or for other accommodations for persons with disabilities, should be made at least 48 hours in advance of the meeting to Peggy Hawker, City Recorder at 541.574.0613.

The agenda may be amended during the meeting to add or delete items, change the order of agenda items, or discuss any other business deemed necessary at the time of the meeting.

1. CALL TO ORDER

2. UNFINISHED BUSINESS
 - 2.A. Continued discussion regarding code amendments for vertical evacuation structures.
[PC 9-26-Work Session Packet.pdf](#)

3. NEW BUSINESS

4. ADJOURNMENT

5. ADJOURNMENT

Memorandum

To: Newport Planning Commission/Citizen Advisory Committee
From: Derrick Tokos, Community Development Director 
Date: September 23, 2016
Re: Work Session No. 2 - NMC Revisions for Vertical Evacuation Structures

Enclosed are draft amendments to Newport Municipal Code (NMC) Chapter 14.10 that contain additional non-discretionary criteria for vertical evacuation structures. They build off of a work session that the Planning Commission held on August 22nd and a follow-up email from Dustin Capri. Additional standards were added prohibiting occupiable space from being added at an elevation that is above the maximum building height, limiting the evacuation assembly area to the roof of a structure, and requiring that the assembly area be accessible to the general public. An engineering requirement was also added. Additional considerations are listed in the staff summary below the code changes. I also put together maps that overlay tsunami inundation lines onto zoning so you can visualize areas where vertical evacuation structures could be permitted.

A second document contains discretionary standards. The Commission had asked to see an example of what might work. I added the provisions to Chapter 14.33, for adjustments and variances, as that seemed to make the most sense. I view this as an either or scenario, but note that non-discretionary standards can be folded in to the Chapter 14.33 revisions.

In either case, we would likely want to amend the Municipal Code to include a definition for vertical evacuation structures. It would be added to Chapter 14.01, Purpose and Definitions. Here is the definition FEMA uses:

Vertical Evacuation Structure - A building or earthen mound that has sufficient height to elevate evacuees above the tsunami inundation depth, and is designed and constructed with the strength required to resist the forces generated by tsunami waves.

The Oregon Department of Land Conservation and Development (DLCD) has an alternate definition in its publication titled "Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities," dated April 2015. Attached is the development code chapter from that publication. It includes the definition and other changes the agency recommends local governments consider. The complete document can be found at:

<https://www.oregon.gov/LCD/OCMP/docs/Publications/TsunamiGuide20150407.pdf>

DLCD staff also provided a letter addressing the issue of “discretionary” versus “non-discretionary” standards, which I have enclosed. It is my hope that, at this work session, we can work through remaining questions so that the legislative process can be started.

- Attachments
- Draft Amendments to Chapter 14.10 of the Newport Municipal Code
- Draft Amendments to Chapter 14.33 of the Newport Municipal Code
- Zoning Maps Illustrating the Location of DOGAMI Tsunami Inundation Areas
- 8/24/16 Email from Dustin Capri
- 8/26/16 Email and Letter from the Department of Land Conservation and Development
- Minutes from the 8/22/16 Planning Commission Work Session
- Chapter 4: Development Code Provisions from publication titled “Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities,” published by DLCDC April 2015

September 26, 2016 Markup of Proposed Amendments to Chapter 14.10 of the Newport Municipal Code to Allow Vertical Evacuation Structures to Exceed Maximum Building Height Limits

CHAPTER 14.10 HEIGHT LIMITATIONS

14.10.010 Height Limitations

A building, structure, or portion thereof hereafter erected shall not exceed the height listed in Table A for the zone indicated except as provided for in [Sections 14.10.020](#), General Exceptions to Building Height Limitations and [14.10.030](#), Special Exceptions to Building Height Limitations.

14.10.020 General Exceptions to Building Height Limitations

- A. The following types of structures or structural parts are not subject to the building height limitations of this Code as long as the square footage of said structure or structural part is no greater than 5% of the main building foot print as shown on the site plan, or 200 square feet, whichever is less: chimneys, cupolas, church spires, belfries, domes, transmission towers, smokestacks, flag poles, radio and television towers, elevator shafts, conveyors and mechanical equipment.
- B. No structure or structural part excepted under Subsection (A) from the building height limitations of this Code, whether freestanding or attached to another structure or structural part, may exceed the maximum allowable height by more than 25% unless approved by the Planning Commission per section 14.10.030.
- C. Standalone antennas, cell towers, electrical transmission towers, telephone or electric line poles and other public utility types of structures or structural parts, where allowed by this Ordinance, are limited in height to 50 feet in R-1, R-2, R-3, R-4, W-1, W-2, W-3 and C-2 zones; 100 feet in the P-1, C-1 and C-3 zones; 150 feet in the I-1, I-2 and I-3 zones. A taller structure or structural part referenced under this subsection may be allowed upon the issuance of a conditional use permit per [Section 14.33](#) of this Code.
- D. Portions of a structure designed for vertical evacuation from a tsunami where the property upon which the structure is located is within a tsunami inundation area, as depicted on the maps titled "Local Source (Cascadia Subduction Zone) Tsunami Inundation Map Newport North, Oregon" and "Local Source (Cascadia Subduction Zone) Tsunami Inundation Map Newport South, Oregon" produced by the Oregon Department of Geology and Mineral Industries, dated February 8, 2013, provided:
 1. The evacuation assembly area is the roof of the structure; and
 2. Ingress/egress to the evacuation assembly area shall be made available to the general public; and

September 26, 2016 Markup of Proposed Amendments to Chapter 14.10 of the Newport Municipal Code to Allow Vertical Evacuation Structures to Exceed Maximum Building Height Limits

3. The lowest floor of rooms or enclosed spaces designed for human occupancy are located below the maximum building height of the zone district within which the structure is located; and

1.4. Plans and specifications, stamped by a licensed engineer, establish that the structure has been designed to withstand an earthquake and wave forces attributable to the magnitude of the tsunami event for which the vertical evacuation structure is intended to provide relief.

Staff: Standards listed above provide a non-discretionary means of authorizing vertical evacuation structures. Additional changes the Commission could consider that would similarly be "non-discretionary" include:

(A) Limiting vertical evacuation structures to W-1 and W-2 zones. The rationale for such a change would be that vertical evacuation structures are appropriate for essential or special occupancy uses, which ORS 455.446 prohibits in tsunami inundation areas outside of water-dependent and water-related zones.

(B) Prohibiting vertical evacuation structures if the site of the building is within a fixed distance of an alternative evacuation assembly area or ground that is outside of the mapped inundation area (ref: Dustin's 8/24/16 email). If the Commission wants to see such a standard then care would need to be taken to ensure that the distance parameters correlate to scientific literature that addresses time and distance people are likely to be able to travel to get to a safe location in the event of a nearshore earthquake and tsunami.

(C) Requiring that all vertical evacuation structures be designed to provide relief from a worst case tsunami (i.e. the XXL event on the DOGAMI TIM maps). This point is raised in the 8.26.16 email and letter from DLCD. The concern with this approach is that it may not be practical in all cases and would preclude alternatives that would provide relief for smaller tsunamis that, based on historic data, are likely to occur.

DE. No structure or structural part excepted under this section from the building height limitations of this Code may be used for human habitation.

14.10.030 Special Exceptions to Building Height Limitations

Any person seeking a special exception to the building height limitations of this Code shall do so by applying for an adjustment or variance as described in [Section 14.33](#) of this Code, and consistent with [Section 14.52](#), Procedural Requirements.**

*(*Amended by Ordinance No. 1839 (10-1-01).*

***Amended by Ordinance No. 1989 (1-1-10).)*

September 26, 2016 Markup of Proposed Amendments to Chapter 14.33 of the Newport Municipal Code to Allow Vertical Evacuation Structures to Exceed Maximum Building Height Limits

CHAPTER 14.33 ADJUSTMENTS AND VARIANCES

14.33.010 Purpose. The purpose of this section is to provide flexibility to numerical development standards in recognition of the wide variation in property size, configuration, and topography within the City of Newport and to allow reasonable and economically practical development of a property.

14.33.020 General Provisions.

A. Application for an Adjustment or Variance from a numerical standard including, but not limited to, size, height, or setback distance may be processed and authorized under a Type I or Type III decision-making procedure as provided by [Section 14.52.001](#), Procedural Requirements, in addition to the provisions of this section.

B. No Adjustment or Variance from a numerical standard shall be allowed that would result in a use that is not allowed in the zoning district in which the property is located, or to increase densities in any residential zone.

C. In granting an Adjustment or Variance, the approval authority may attach conditions to the decision to mitigate adverse impacts which might result from the approval.

14.33.030 Approval Authority. Upon receipt of an application, the Community Development Director or designate shall determine if the request is to be processed as an Adjustment or as a Variance based on the standards established in this subsection. There shall be no appeal of the Director's determination as to the type of application and decision-making process, but the issue may be raised in any appeal from the final decision on the application.

A. A deviation of less than or equal to 10% of a numerical standard shall satisfy criteria for an Adjustment as determined by the Community Development Director using a Type I decision-making procedure.

B. A deviation of greater than 10%, but less than or equal to 40%, of a numerical standard shall satisfy criteria for an Adjustment as determined by the Planning Commission using a Type III decision-making procedure.

C. Deviations of greater than 40% from a numerical standard shall satisfy criteria for a Variance as determined by the Planning Commission using a Type III decision-making procedure.

(Amended by Ordinance No. 1511 (1-18-88); amended by Ordinance No. 1828 (10-3-00); amended in its entirety by Ordinance No. 1992 (1-1-2010).)*

14.33.040 Application Submittal Requirements. In addition to a land use application form with the information required in [Section 14.52.080](#), the petition shall include a site plan prepared by a registered surveyor that is drawn to scale and illustrates proposed development on the subject property.

September 26, 2016 Markup of Proposed Amendments to Chapter 14.33 of the Newport Municipal Code to Allow Vertical Evacuation Structures to Exceed Maximum Building Height Limits

- A. For requests to deviate from required setbacks, the site plan shall also show survey monuments along the property line subject to the Adjustment or Variance.
- B. For requests to deviate from building height limitations, the application shall include exterior architectural elevations, drawn to scale, illustrating the proposed structure and adjoining finished ground elevations.

14.33.050 [Criteria for Approval of an Adjustment](#). The approval authority may grant an Adjustment using a Type I or Type III decision-making process when it finds that the application complies with the following criteria:

- A. Granting the Adjustment will equally or better meet the purpose of the regulation to be modified; and
- B. Any impacts resulting from the Adjustment are mitigated to the extent practical. That mitigation may include, but is not limited to, such considerations as provision for adequate light and privacy to adjoining properties, adequate access, and a design that addresses the site topography, significant vegetation, and drainage; and
- C. The Adjustment will not interfere with the provision of or access to appropriate utilities, including sewer, water, storm drainage, streets, electricity, natural gas, telephone, or cable services, nor will it hinder fire access; and
- D. If more than one Adjustment is being requested, the cumulative effect of the Adjustments results in a project which is still consistent with the overall purpose of the zoning district.

14.33.060 [Criteria for Approval of a Variance](#). The approval authority may grant a Variance using a Type III decision-making process when it finds that the application complies with the following criteria:

- A. A circumstance or condition applies to the property or to the intended use that does not apply generally to other property in the same vicinity or zoning district. The circumstance or condition may relate to:
 - 1. The size, shape, natural features, and topography of the property, or
 - 2. The location or size of existing physical improvements on the site, or
 - 3. The nature of the use compared to surrounding uses, or
 - 4. The zoning requirement would substantially restrict the use of the subject property to a greater degree than it restricts other properties in the vicinity or zoning district, or

September 26, 2016 Markup of Proposed Amendments to Chapter 14.33 of the Newport Municipal Code to Allow Vertical Evacuation Structures to Exceed Maximum Building Height Limits

- 5. A circumstance or condition that was not anticipated at the time the Code requirement was adopted.
 - 6. The list of examples in (1) through (5) above shall not limit the consideration of other circumstances or conditions in the application of these approval criteria.
- B. The circumstance or condition in “A” above is not of the applicant’s or present property owner’s making and does not result solely from personal circumstances of the applicant or property owner. Personal circumstances include, but are not limited to, financial circumstances.
- C. There is practical difficulty or unnecessary hardship to the property owner in the application of the dimensional standard.
- D. Authorization of the Variance will not result in substantial adverse physical impacts to property in the vicinity or zoning district in which the property is located, or adversely affect the appropriate development of adjoining properties. Adverse physical impacts may include, but are not limited to, traffic beyond the carrying capacity of the street, unreasonable noise, dust, or loss of air quality. Geology is not a consideration because the Code contains a separate section addressing geologic limitations.
- E. The Variance will not interfere with the provision of or access to appropriate utilities, including sewer, water, storm drainage, streets, electricity, natural gas, telephone, or cable services, nor will it hinder fire access.
- F. Any impacts resulting from the Variance are mitigated to the extent practical. That mitigation may include, but is not limited to, such considerations as provision for adequate light and privacy to adjoining properties, adequate access, and a design that addresses the site topography, significant vegetation, and drainage.

14.33.065 Adjustments or Variances for Vertical Evacuation Structures.

An application for an adjustment or variance to a building height limitation for the purpose of constructing a vertical evacuation structure need not satisfy the approval criteria listed in Section 14.33.050 or Section 14.33.060, if it establishes that the following alternative criteria have been met:

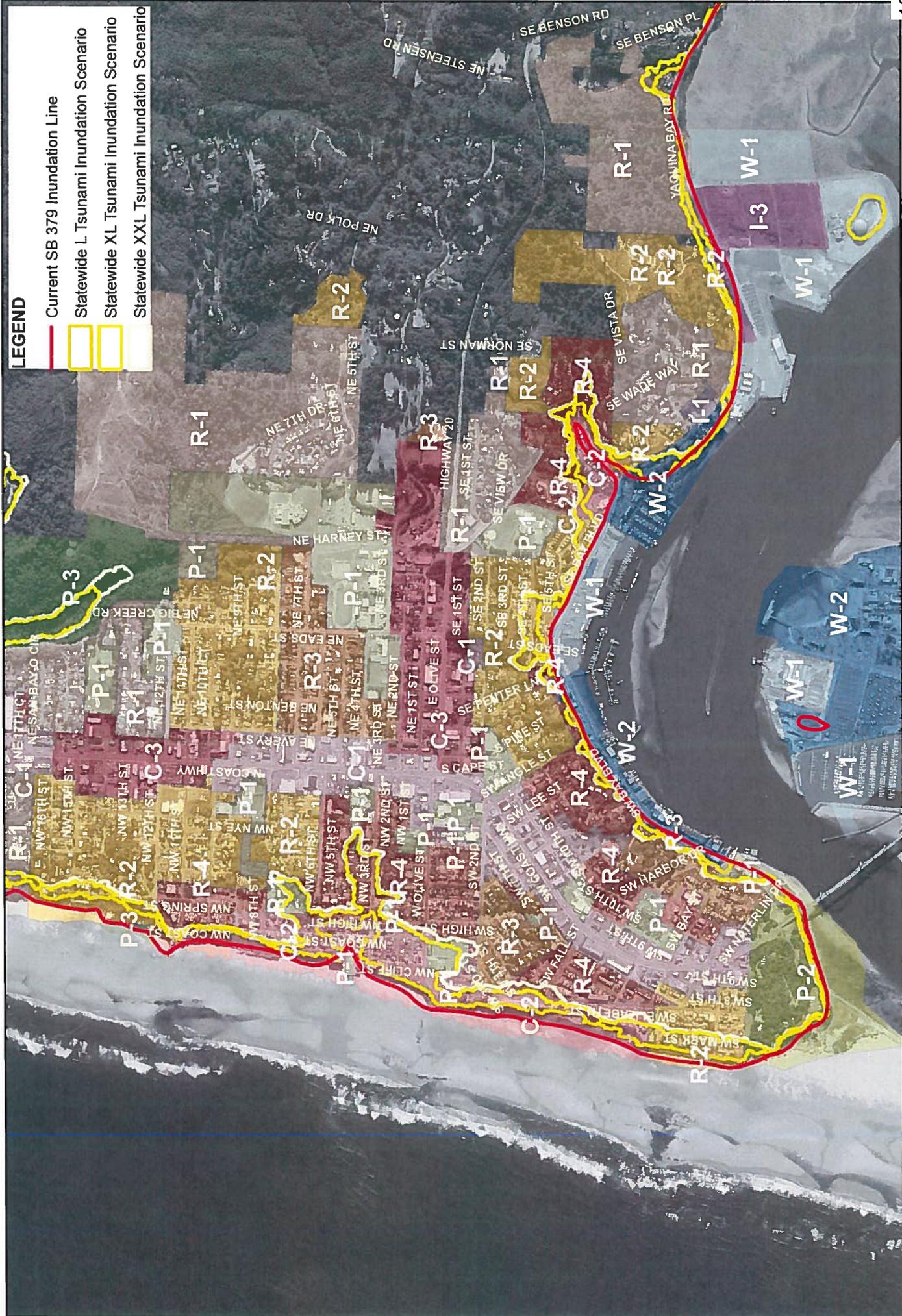
- A. The structure designed for vertical evacuation from a tsunami is located within a tsunami inundation area, as depicted on the maps titled “Local Source (Cascadia Subduction Zone) Tsunami Inundation Map Newport North, Oregon” and “Local Source (Cascadia Subduction Zone) Tsunami Inundation Map Newport South, Oregon” produced by the Oregon Department of Geology and Mineral Industries, dated February 8, 2013; and
- B. Evidence is provided showing that the structure provides substantially more effective life safety protection than alternative evacuation measures. Alternative

September 26, 2016 Markup of Proposed Amendments to Chapter 14.33 of the Newport Municipal Code to Allow Vertical Evacuation Structures to Exceed Maximum Building Height Limits

evacuation measures mean evacuation routes to safe locations that serve the site or area, and that either are in place or can be constructed and/or improved; and

C. Measures have been incorporated into the design of the structure to mitigate its visual impact on the surrounding landscape to the extent practical. Mitigation may include, but is not limited to, such considerations as building articulation, massing, color, lighting, and use of low reflective materials.

Staff: Here are discretionary approval standards for the Planning Commission's consideration. The DLCD letter notes that the city should be careful about adopting standards that put decision makers in a position where they have to weigh design/aesthetic impacts against life safety considerations. With that in mind, the Commission may want to think carefully about whether or not criterion (C) should be included. Non-discretionary standards, such as those listed in the proposed revisions to NMC Chapter 14.10 could also be included in this section.



LEGEND

- Current SB 379 Inundation Line
- Statewide L Tsunami Inundation Scenario
- Statewide XL Tsunami Inundation Scenario
- Statewide XXL Tsunami Inundation Scenario



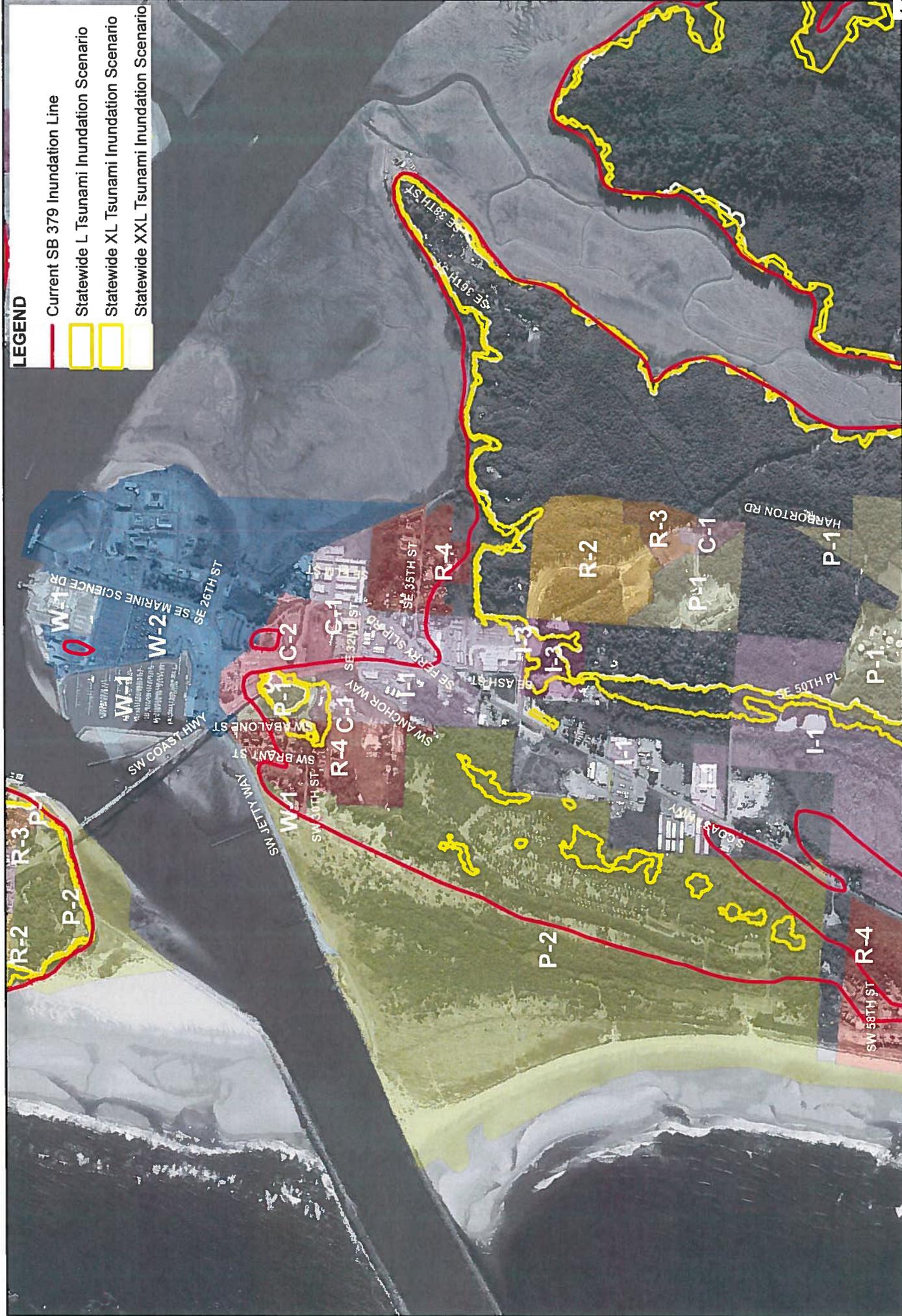
North Newport - Tsunami Inundation Scenarios

City of Newport
 Community Development Department
 169 SW Coast Highway
 Newport, OR 97365

This map is for informational use only and has not been prepared for, nor is it suitable for legal, engineering, or surveying purposes. It includes data from multiple sources. The City of Newport assumes no responsibility for its completion or use and users of this information are cautioned to verify all information with the City of Newport Community Development Department.

Image Taken July 2013
 4-inch, 4-band Digital Orthophotos
 David Smith & Associates, Inc. Portland, OR





LEGEND

- Current SB 379 Inundation Line
- Statewide L Tsunami Inundation Scenario
- Statewide XL Tsunami Inundation Scenario
- Statewide XXL Tsunami Inundation Scenario

South Beach - Tsunami Inundation Scenarios

City of Newport
 Community Development Department
 168 SW Coast Highway
 Newport, OR 97365
 Phone: 1.541.574.0629
 Fax: 1.541.574.0644



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Image Taken July 2013
 4-inch, 4-band Digital Orthophotos
 David Smith & Associates, Inc. Portland, OR



Derrick Tokos

From: Dustin J.I. Capri <dustin@capriarchitecture.com>
Sent: Wednesday, August 24, 2016 8:15 AM
To: Derrick Tokos
Cc: Wanda Haney; Amanda Capri; Dietmar Goebel
Subject: Re: Vertical Evacuations

Derrick,

I appreciate your feedback. I obviously do not have a full grasp of the code implications but this one was a topic that I felt I could argue both sides. The most important thing is to ensure life safety needs which this will address. At the same time - I know this is something that could be abused by people to get taller buildings which would have a significant change to the look and feel of Newport's waterfront.

Dietmar and I were at lunch yesterday discussing this concerns and we were going around and around on it as well. We thought of the importance of safety and that was the most important issue. However - we went through a hypothetical scenario with future clients of ours (half jokingly) but there is a real concern of this code being used improperly. There is a scenario that we could argue that these vertical evacuation areas should have windows (so you can see out in an emergency), as well as tables and chairs to people can sit, and then bathrooms since many people would be using this space in an emergency... and then once these spaces are built there is very little a municipality could do to stop a building user from using these spaces as a "penthouse conference room". Unfortunately we don't have answers but I think we can all agree that there are many scenarios where architects and owners could make justifications for these "vertical evacuations" that would be serving many purposes besides a vertical evacuation.

I also have thought more about limiting this option to W uses only. I live on the bayfront and I'm not certain I would ever be willing to spend the money required to create a vertical evacuation but I think if the City of Newport allows these vertical evacuations in W use areas that would be impacted by a tsunami I don't think we can then say that the residential or commercial zoned land that would also be impacted by the tsunami couldn't pursue this same potentially life saving design element. Perhaps in order to qualify for a vertical evacuation you have to have a geotechnical engineer prove that a subject property would be impacted by a tsunami.

What do you think about the idea of not allowing vertical evacuations if a subject property is a certain distance (500-100ft) away from a safe elevation?

What do you think about the idea of having these be roof top evacuations? This would save 10-12' in structure height.

What do you think about requiring the vertical evacuations to be accessed by the general public so these elements can benefit the larger community?

These are just all ideas. Thanks for letting me bring these ideas to you.

Dustin

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Dustin J. Capri, AIA, NCARB, LEED AP ND
 Architect

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On Aug 23, 2016, at 6:44 PM, Derrick Tokos <D.Tokos@NewportOregon.gov> wrote:

Hi Dustin,

Thanks for sharing your thoughts, and I'll keep this in mind as we put together materials for the next work session. Much of what you have outlined could be worked into a non-discretionary approval process and is absolutely on point with what we talked about. The challenge with a conditional use or other discretionary processes is coming up with criteria that give applicant's a clear sense of what they need to do to successfully design a vertical evacuation structure while giving policymakers leeway to make a reasoned, defensible decision based upon feedback they receive as part of a public process.

Here are a couple of the existing conditional use standards that would be particularly problematic:

"C. The proposed use does not have an adverse impact greater than existing uses on nearby properties, or impacts can be ameliorated through imposition of conditions of approval.

For the purpose of this criterion, "adverse impact" is the potential adverse physical impact of a proposed Conditional Use including, but not limited to, traffic beyond the carrying capacity of the street, unreasonable noise, dust, or loss of air quality.

D. A proposed building or building modification is consistent with the overall development character of the area with regard to building size and height, considering both existing buildings and potential buildings allowable as uses permitted outright."

I am concerned about putting policymakers in a position where they have no flexibility to respond to legitimate concerns raised through a public hearings process without penning a decision that will be overturned on appeal. It may be that a discretionary process should include 3-D modeling so that policy makers can visualize what the structure would look like on the ground, along with standards that get at visual compatibility in the landscape without a comparison to existing buildings, none of which would be anywhere near the height of a vertical evacuation structure.

I sent DLCD staff a note this morning to see if they have any thoughts on suitable criteria and I'll think about some of the work that I did in the Columbia River Gorge National Scenic Area that may be relevant, as we put together some pretty good visual compatibility standards for development in that environment (including standards for development that is visually dominant in the landscape).

Derrick I. Tokos, AICP
 Community Development Director
 City of Newport
 169 SW Coast Highway
 Newport, OR 97365

ph: 541.574.0626 fax: 541.574.0644
d.tokos@newportoregon.gov

From: Dustin J.I. Capri [<mailto:dustin@capriarchitecture.com>]
Sent: Tuesday, August 23, 2016 1:16 PM
To: Derrick Tokos <D.Tokos@NewportOregon.gov>; Wanda Haney <W.Haney@NewportOregon.gov>
Cc: Amanda Capri <amanda@capriarchitecture.com>; Dietmar Goebel <dietmar@dhgoebel.com>
Subject: Vertical Evacuations

Derrick and Wanda,

I have thought about this a great deal last night and today. I had a few comments/questions:

Could Vertical Evacuations be handled through the Conditional Use Process? (This would allow review on a case by case basis to avoid 80' tall buildings and I tried to include some criteria so it could be evaluated)

- A "Vertical Evacuation" would need to be classified as a Use based on City Code 14.34.020 - B.

- An additional requirement under 14.34.040 could state "If conditional use is a Vertical Evacuation than the following additional application documents are required:

- 1) Letter from a geotechnical engineer or surveyor identifying the height in which the structure must be elevated to design for an X level of earthquake and the associated tsunami
- 2) Structural engineer design/calculations and letter stating the structure can comply with an X level of earthquake
- 3) Geotechnical Engineer letter/report that confirms that the soil conditions are adequate to withstand an X level of earthquake
- 4) A Conformance letter from the Geotechnical Engineer confirming that the structural engineer's design complies with the requirements of the soil to withstand an X level of earthquake
- 5) Detailed architectural/structural plans showing the height is not beyond the geotechnical engineer's recommended height and providing adequate detail that no building space beyond the maximum height allowed by code (35' in W) is occupied and to be used for any purposes beyond vertical evacuation and mechanical space.

- 14.34.050:

- A) No change
- B) Exception for the incorporation of a Vertical Evacuation to serve as a tsunami refuge
- C) Exception for the incorporation of a Vertical Evacuation to serve as a tsunami refuge
- D) Exception for the incorporation of a Vertical Evacuation to serve as a tsunami refuge
- E) Add a section for evaluating Vertical Evacuations that could include the following:
 - 1) Evidence that the property is greater than 1,000ft walking distance from a safe elevation for a tsunami. If it is within 1,000ft of a safe elevation, Vertical Evacuation is not allowed to be taller than the code allows the building to be.
 - 2) Vertical evacuation area must be rooftop access only and the floor of the vertical evacuation (roof) can only be as tall as required b the geotechnical engineer for an X level of earthquake (this would make all buildings at least 10' lower and still provide safe refuge for people).
 - 3) Public access to vertical evacuation must be signed and made available so the larger community can benefit from the vertical evacuation beyond just the users of the building.

4) If an existing (publicly accessible) vertical evacuation is already provided within 1,000ft of the proposed structure, then any new vertical evacuation is not allowed to be taller than the building code allows.

Closing - Not sure if any of this makes sense or could be implemented, but I've been thinking about it a lot and wanted to bounce these ideas off of you. I think these criteria and requirements would allow people like OSU to build a vertical evacuation that would benefit the entire community while also hopefully preventing people from taking advantage of the code and building excessively tall structures along historic areas like the bayfront.

Let me know your thoughts.

Thanks!

Dustin

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Dustin J. Capri, AIA, NCARB, LEED AP ND
Architect

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Derrick Tokos

From: Spangler, Matt <matt.spangler@state.or.us>
Sent: Friday, August 26, 2016 11:46 AM
To: Derrick Tokos; Woolley, Laren; Wingard, Patrick
Subject: RE: Lifting Height Limits to Allow Vertical Evacuation Structures
Attachments: Evacuation structure height limit.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Derek,

Laren and I have jotted down some of our thoughts on possible approaches to height limit exemptions for tsunami structures in the attached memo. Take a look, and if you want to discuss further, feel free to give a call.

Have a good weekend,

MS

Matt Spangler | Senior Coastal Policy Analyst
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 Oregon Dept. of Land Conservation and Development
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From: Derrick Tokos [mailto:D.Tokos@NewportOregon.gov]
Sent: Tuesday, August 23, 2016 12:20 PM
To: Spangler, Matt <mspangler@dlcd.state.or.us>; Woolley, Laren <lwoolley@dlcd.state.or.us>; Wingard, Patrick <pwingard@dlcd.state.or.us>
Subject: Lifting Height Limits to Allow Vertical Evacuation Structures

Gentleman,

I am hoping you can provide some assistance with options I am putting forth to our Planning Commission to allow vertical evacuation structures to exceed what would otherwise be the City's maximum building height limits. Our City Council would like to address this issue legislatively, in light of the fact that the height limits in the city's Zoning Ordinance were put in place before "tsunami risks" and "vertical evacuation structures" were on anybody's radar, and in light of the fact that OSU is likely to propose a vertical evacuation structure on the HMSC campus in the next 12 to 18 months.

Attached is language the Commission evaluated at a work session last night. After much discussion, they asked that I bring back two options for further discussion at a second work session on September 12th.

Option #1: Non-discretionary. A refinement of the existing language that limits the height exemption to water-dependent and water-related zones, adds an engineering and/or geotechnical requirement to establish that the structure has been designed to withstand the anticipated wave force, and to prohibit additional floors designed for "occupancy" above the established maximum building height.

Option #2: Discretionary. They would like to see standards that they could evaluate projects against through a public hearings process. This is where I could really use your help, as I don't want to put them into an untenable situation. They get it, as this is why we are looking at a legislative solution as opposed to a variance. Typical Conditional Use criteria, such as "compatibility with the surrounding area" would seem to be a non-starter as it would be difficult... if not impossible for an applicant to meet such a standard. Same goes for concepts such as "hardship" or practical difficulty. Introducing concepts such as protecting the view shed is dicey and we would want to be careful about avoiding putting our policymakers in a position where they would be open to challenges that compliance with city criteria will compromise the safety of the structure.

Any thoughts you may have as to how we can frame these two options would be much appreciated, particularly with regards to discretionary standards. I need to put draft language together by September 8th, so I would appreciate receiving your feedback by September 6th.

Thanks,

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To: Derek Tokos, city of Newport
 From: Matt Spangler & Laren Woolley, DLCDC
 RE: Height Limit Exemptions for Tsunami Evacuation Structures

We have had a chance to talk and do a little thinking on this, and here are some of our ideas/comments:

First, we think it's really good that you guys are getting out ahead of this by codifying some standards and process. It's certainly possible that this could come up again, so thinking beyond the expected proposal at Hatfield is a very good approach. Kudos to the city for taking this on.

As you might know, our tsunami land use guidance does address evacuation structures, and the model code suggests using a simple (non-discretionary) exemption for height limits. However, we do understand the more individualized assessment that could be provided by a discretionary process. At the same time we appreciate the challenge in devising some kind of discretionary review criteria that won't operate to thwart important life safety objectives.

Having said that, we'd suggest that if the city decides to incorporate a discretionary review process and criteria, then the overall criteria for a height limit exemption should combine options #1 and #2. In other words, any structure subject to discretionary review would also have to conform to the objective standards, i.e., limited to WD and WR zones, engineering requirements, and a prohibition on habitable floors above the standard height. To those, we would suggest adding:

- Evacuation structure shall be of sufficient height to place evacuees above the level of inundation of the XXL local source tsunami event.
- Evacuation structures proposed as a component of new development shall provide at least sufficient capacity to accommodate the evacuation needs of the proposed development.

Beyond these standards, if the commission wants to add a discretionary review process, we would suggest something like the following as the approval criterion:

Evacuation structures exceeding the height listed in Table A for the zone indicated shall be permitted only upon a showing that the structure provides substantially more effective life safety protection than alternative evacuation measures. Alternative evacuation measures means evacuation routes to safe locations that serve the site or area, and that either are in place or can be constructed and/or improved.

The language could maybe use a little work, but you get the idea. As noted, we share the concern that it would be troublesome to put decision makers in a position of having to weigh design or aesthetic impacts against life safety protection considerations. So our thought behind the above approach is to avoid "impact" related criteria, and instead simply have the decision turn on the single threshold of improved life safety: if a structure will provide a demonstrably more effective evacuation alternative for either existing or otherwise permitted development, then it's a go. It's not a free pass, as an applicant would have to demonstrate through substantial evidence the increased efficacy of a proposed structure in comparison to available and/or potentially improved evacuation routes to high ground. The weighing

of that evidence would be the judgement call required of decision makers. But there would be no obligation for decision makers to potentially “trade off” safety considerations for aesthetic or other design concerns.

Feel free to give a call if you want to talk through any of this further. Thanks for the opportunity to weigh in on this.

MINUTES
City of Newport Planning Commission
Work Session
Newport City Hall Conference Room A
August 22, 2016
6:00 p.m.

Planning Commissioners Present: Jim Patrick, Lee Hardy, Bob Berman, Mike Franklin, and Jim Hanselman.

Planning Commissioners Absent: Rod Croteau and Bill Branigan (*excused*).

PC Citizens Advisory Committee Members Present: Karmen Vanderbeck and Dustin Capri.

PC Citizens Advisory Committee Members Absent: Bob Heida.

City Staff Present: Community Development Director (CDD) Derrick Tokos and Executive Assistant Wanda Haney.

1. **Call to Order.** Chair Patrick called the Planning Commission work session to order at 6:00 p.m.

2. **Unfinished Business.**

A. **Preliminary discussion about the release of the 2016 flood insurance rate maps.** Tokos noted that included in the meeting packet was the preliminary release of the new FEMA Flood Study and Insurance Rate Maps. The letter distributed at this meeting was the actual hard copy with instructions. There's an official 30-day review period followed by a 90-day appeal period, after which they will look to finalize the maps in seven to ten months. We will take the study and maps through local ordinance adoption, which should be in the fall of 2017. Hardy asked if we're obliged to adopt them. Tokos said if we want to maintain flood insurance for our constituents we have to adopt them. Hardy said then people wouldn't build in hazardous areas and we wouldn't lose lives; what's wrong with that?

Tokos noted that when FEMA did the early release back in 2014 to get feedback on how the maps were coming together, we had a few targeted areas. One was the Nye Beach turnaround. Franklin asked if the new gray area was revised. Tokos said yes, they pulled it back considerably. They found that VE zones didn't play well with the vertical seawall. They had to adjust their modeling a bit to get it to handle the seawall dynamic better. That's why they said the original information was overly conservative. Patrick said that area could still flood, but this is more realistic with respect to wave surge. Tokos said in that VE zone, the surge shouldn't be much beyond halfway through the parking lot at the turnaround. Patrick thought that made more sense.

Tokos said that over by Neolha Point they were basically pulling most of the townhouses out. We gave them photos showing flooding in 2007. While it may not be related to wave action, the thought was that if it's subject to a 100-year event, it should be in the 100-year flood plain so people know that when they purchase the property they possibly can get federally subsidized flood insurance and they're not saying that nobody informed them. Berman asked how they know. If he's from out of the area and buys a piece of property that looks perfectly reasonable, how does he know? Tokos said if there's a lender involved, it's mandatory. It will come up in the disclosure documents. Berman asked who's disclosing it. Tokos said he thinks a lender will require that it's mandatory for insurance before purchasing property. Hardy said it's not clear in the disclosure documents used in this state. Certain sellers, like banks, governments, housing authorities, and developers, don't have to disclose. In addition, on these forms the third answer choice is, "don't know." She said we don't have disclosures properly structured to provide that information accurately. Patrick asked if it's shown on title reports. Franklin said that banks find it. Tokos said that our office gets contacted regularly. Hardy said hopefully it stops them because their banks won't lend the money; but there are a lot of people who spend cash. Patrick said it would get tagged when they go to get insurance. Tokos noted that there's the required disclosure on the deed documents that you are responsible for going to your local planning office to review zoning laws. This is an overlay, which is a zoning law. Hardy said that doesn't mean that it gets read and they will do that. Tokos said it's a "buyer beware" system. Hardy said it's not the be all to all concerns. Tokos said, it's the system we work with. Hardy mentioned a NOAA employee who was using a realtor that should have encouraged him to ask the right questions; but she didn't. Now this person is facing \$30-\$50 thousand to rebuilt HOA common area. That had been known for years, but he was never advised. It was bank-owned property. Special assessments aren't in the CC&Rs. The disclosure form wasn't required because it was bank-owned property. If he had asked to review minutes and budgets, he would have seen it; but nobody advised him of it. She said a lot of people get burned relying on the disclosures. Berman said a seller is required to check those boxes if they're selling their house. Hardy said, but the third answer is "I don't know." Tokos said it's correct that they have that option in there. The disclosure form is something held tight by the real estate lobby in the state. Capri said if you had just "yes" or "no" that's scary because you are liable. Hardy said it's easy if you don't know something to hire somebody to find the answer. Capri said geologic reports are the same; there's so many caveats.

Looking at the Neolha Point aerial, Franklin asked if that structure next to the townhouses is required to get flood insurance. You can see how tight that is. Tokos said we have to go through the 30-day review. We can pull out circumstances like that where it comes up to the eaves of the structure and ask, what are you looking for on something like this? He said as a matter of interpretation, it makes things difficult. They are giving us highly-defined, good-quality maps. They should be able to tell us, if it's close, you are going through the process. Now it's very tight. Berman said it looks like a corner is in. Carpi asked if a structure touches, is it in? Tokos said, what do we do with that? He said it probably should have been already elevated. Franklin asked if it's the structure or the property lines. Once it's on the property, is that subject to FIRM? Tokos said, no, you could have a large property. Patrick said what you are looking at is the flood level numbers and floor level. Tokos said he needs to see what FEMA's expectations are with these new highly accurate maps as opposed to the old ones that were less accurate and we had more discretion. Patrick noted that that structure Franklin asked about was built when it flooded down there. Tokos said he didn't recall if that assisted living facility was flooded; but at least half of the townhouses were.

On a side note, Berman had a question about a property on the lower left of the map that had a white roof. He said that's a derelict property that needs to be cleaned up. Tokos said that's a question for Jim Folmar, our Community Services Officer. That's who would handle that; it would be a nuisance abatement. Patrick thought it would be good if we could have Folmar come and do an update to the Planning Commission about zoning things he handles.

Tokos said the third map we had talked about was the Big Creek area. They didn't make any changes that we talked about. They are pulling out a number of homes where we have had flooding. Hardy said she knew for a fact that a couple of the homes have pumps under the houses, but are outside the zone. Patrick said that could be a spring thing, and not flooding. Hardy said the first time it happened they didn't call it a flood because it didn't cover two square miles. She said it's probably a combination of ground water and runoff. Tokos said he will follow up with FEMA. As he pointed out in his memo, the study was all coastal. There was no hydrologic analysis of rivers or streams. The dynamics of those have changed considerably; where they're located and where the sand bars are. Hardy said you would think because it's the same water system, that they would look at it all at once. Tokos said it's a big piece, and they didn't tackle it. It makes you think that they would be more cautious there. Patrick asked if they're ever going to tackle that. Tokos said he can ask them. They are looking to set up a consultation coordination officer (CCO) meeting in mid-September. He will ask when or if it's even on their radar. Patrick said it would be nice to know. Capri thought Big Creek has big impact. He said anywhere rivers flow into the ocean it could flood in really different ways than what this is projecting. Hanselman noted that it's increasing at Agate Beach. DOGAMI and OSU are studying changes of wave actions on the beach. He said this is a 20-year cycle. Sand being deposited on Agate Beach may be coming from Cape Blanco. They are saying that the Newport beaches extend as far as Cape Perpetua. The sand comes from the sloughing off of the bluffs. That's what gets deposited north. There seems to be a reversal after twenty years. The depth changes dramatically in thirty years, which will change these flood maps too. He said that in the pictures that DOGAMI has of Agate Beach and the high water marks, it's remarkable where the high water is over fifty to sixty years. Some of this will change because nature changes. Patrick said that brings up the reason to ask them.

Tokos noted that in the packet, he included the north side and south side maps and a link to the website where we have the panels and the study. Patrick said he looked at those maps, but couldn't read them. Tokos said on those, the blue area would be the area. Tokos said the gist of this for Newport is that we don't have a lot of expansion. Much is elevated and bluffs. The storm surge can cause issues. One area, Big Creek, has a large floodplain. Tokos shared with the Port of Newport their area. Kevin Greenwood is working with the Port Commission. We will share their comments on behalf of the Port. They have McLean Point. That will impact them a little bit. It's currently being used as a dredge disposal site. They actually benefit by and large. Port Dock 7 is pulled out. FEMA originally set the bay height at 11.5 feet, but adjusted that to 12 feet. Tokos noted that there's a fair amount coming out in South Beach in the State Park. A lot has to do with accretion as the beach area moves further out toward the end of the Jetty. Berman said that's not buildable anyway. Tokos noted that some lots in Southshore are getting drawn in on the south end; three or four are impacted. Capri wondered what that was on the north map up by 89th. Tokos said it looks like something from the original maps. Maybe it was tracked further in. Berman said Moolack Creek goes back up in there.

Tokos said, as part of our comments, there were a number of letters of map changes (LOMCs), letters of map amendments (LOMAs), and letters of map revisions (LOMRs) that were all different flavors of changes made to FEMA maps outside the regular update cycle that will be superseded. They sent a two-page printout listing the out-of-cycle map amendments that are impacted because of these changes. We will be contacting those folks personally. Any property owner impacted will be contacted. He noted that we have a property owner who is looking to develop on property that is going in. They are looking at what to do. Do they want to develop in a more noncompliant manner? What's it going to cost to build in compliance with the new maps? What's the cost of insurance? He said, on the other hand, Capri had mentioned someone wanting to develop on property coming out. Capri said if it's outside tidal action, anybody can do site specific. They submit a letter to FEMA. Tokos added, if you can show that the development site is elevated and you don't need to artificially elevate, you can do that. Berman asked if these maps are based on Lidar. Tokos said yes, and also there's the study of the coast where they did modeling in terms of wave surge and terrain features on the coastline. They have been observing wave action over a number of years. That's why along the coastline it's broken down into finite sections and you will have different elevations for these different sections. They

took a hard look at the coastline. Capri said before it didn't follow the topography at all. Tokos said the '09 maps were digitized versions of the hand-drawn maps. They were very cartoonish, but it was the best they had at the time. Hanselman asked if the red lines on the maps were the UGB or city boundaries. Tokos said that's the city boundary. Capri thought it was good that we would be sending notices out to the affected people. Hardy asked if the City will be keeping a registry of those people and properties. Tokos said we will start a legislative file that we will keep under permanent retention.

On a side note, Patrick asked where we're at on the city limits. You can't tell what's in and what's out. Tokos said the City Council put their Urban Renewal hats on and talked about that. The general consensus was that we need to do concept planning for the highway corridor at least down to 50th (32nd to 50th) with the same detail as we did for Coho/Brant. Then pick up a conversation about annexation when they could have a more-informed discussion. Those property taxes will go up. We can quantify what they will look like. Without that, we can't answer what it will do if they come in looking at the long-term. Many of those properties are industrial. Do they want to stay where they are, or will the City turn it over to commercial? When given enough time, they can make those decisions. Hardy recalled that the developer of Wolf Tree did outreach between there and Newport to try to gain contiguous properties. The resort would develop sanitation and water system and sell it back. Then he lost the property and Will Emery bought it. The original developer was offering free golf for life if the property owners would agree to be annexed. Tokos noted that if a property is surrounded, we can take it; that's called island annexation. They have a say. They can show up at public hearings. But they couldn't stop it at the end of the day. Tokos said there are properties to the south in the UGB he doesn't show, but we don't technically surround anything there. Hardy said that south of 98th on the west side was targeted for that in the past. Patrick asked about 50th. Tokos said that is all surrounded. Patrick said for Surfland we don't have any way to get services down there. Capri said that 50th should be looked at. He said they are doing a development there, and by the time the City annexes it, you will be stuck with development at County standards. Patrick asked if the Council wants to do a design study down to there. Tokos said possibly to convert to commercial down to 40th, and industrial will go away. It's light industrial, which is a flex zone. They are not wanting to see a towing company for instance that won't mix well with a Trader Joe's. He's guessing that 32nd to 40th will possibly shift to commercial; and 40th to 50th will be industrial. We would want to have serious conversations with Hwy. 101 major landowners, like Tryon. Some of theirs is heavy industrial. They have entertained other uses like Lowes, but it just didn't happen. They are open, though. Wilder doesn't want to see heavy industrial there after the experience they had with that temporary asphalt plant that set up there. The issue is the smell if you're a residential owner and an asphalt plant comes in.

Patrick mentioned Tillamook; and Tokos said that Tillamook is going to get hammered. There's one little bit in the middle that's high enough. He said the big concern is the assay stuff; the concept of having to do habitat protection and not knowing what that is going to cost.

3. New Business.

A. Code changes to height limits for vertical evacuation. Hardy asked if we can limit that to existing buildings only. Tokos said he didn't think that would be saleable. Existing buildings may not be designed to take on the extra load. He said this is just an initial stab at the code language. He attached the guidelines FEMA has, which is a pretty good resource out there. It gives you an idea of what some structures look like. He attached a couple of chapters; the link has the whole document. It was felt that the most straightforward way to make changes would be to do a general exception. We have a variety of zones that fall within the tsunami inundation area. We have other exceptions that are akin to this. Hardy asked if that would apply to new construction. Tokos said it would apply to new or redevelopment. In the Height Limitations chapter of the NMC he added under general exceptions, "Portions of a structure designed for vertical evacuation from a tsunami where the property upon which the structure is located is within a tsunami inundation area as depicted on the maps entitled. . ." and then spelled those out. We can amend it in the future if newer maps are put out. He avoided putting a maximum height in here. We don't know what that needs to be in certain areas. In commercial and industrial the height limit is 50 feet, but that might not be sufficient in certain areas. It depends on site-specific conditions.

Hardy asked if the City has an inventory of buildable sites in the inundation zones. Tokos said we have a buildable lands inventory from 2013 and 2015. If we bring this to adoption, he could map that. Hardy said you know where they are, and someone wanted to build for vertical evacuation, it requires new construction to possibly be engineered to sustain impact. This just addresses one thing. Hardy thought that if it's just isolated to one thing, it leaves you hanging out there. Tokos said he can talk to our Building Official, Joseph Lease, about whether the building code is sufficient. He suspects that the building code is going to be flexible enough to allow you to design robustly to withstand wave force; it's not going to compel you. Hardy said it seems that if we start allowing this exception for that kind of construction then it's encouraging high-risk behavior. Tokos said there could be additional standards in the zoning code or as local building codes. Hardy asked if they aren't supposed to be stricter than State codes. Tokos said only if they're addressed in the State code; if not, we can address it. Capri thought you would be identifying properties you can't develop. Hardy wondered why have laws and rules if you can't develop safely. Berman said that's the direction of almost any property. If an earthquake hits, the weak will fall over. Hanselman thought it was of greater importance to not want buildings in there in the first place. We wouldn't want to give a height variance to residential just to encourage people to stay. He doesn't see that as appropriate. He said we should be using standards to prevent that. Hardy

said, or discourage anyway. Hanselman said to build a house that needs an evacuation level above 35 feet is counterproductive. Capri said on all these lots are people that have spent fortunes; then you tell them that they can't?

Tokos said the Commission could limit it to water-related or water-dependent; you have that flexibility if you want. Capri said the purpose is to protect life safety. Tokos said it's not intended for people to try to use that to circumvent the height limits in areas where there are views of the ocean and the bay. Patrick said that level's not supposed to be for human habitation. Franklin wondered who's going to review those. Vanderbeck wondered why not keep it as is and use a conditional use permit to assess exceptions. Why open it up? Tokos said the concern from the Council about handling it as a variance is that the variance standards talk about practical difficulties and hardship. You could make a pretty good argument that there's no problem with anybody building to the current code, and they have no entitlement to vertical evacuation. They felt it's better as a legislative matter. You are talking about height limits established before there were tsunami inundation zones. Hardy said we don't have actual data about inundation. It's all computer-generated. Patrick said there were places in Thailand that withstood the tsunami, and people vertically evacuated. There are studies saying this can be done. Hardy said, but it hasn't been established here in terms of impact on the topography. It's based on computer models. You don't know what is going to move where. If they evacuate vertically, can they survive? Tokos again noted that one way to go is to limit it to water-dependent and water-related because under the revised statutes that apply to building codes, there's a prohibition to essential facilities being in inundation zones. You could say vertical evacuation makes sense in W-1 and W-2 zoned areas where you could have higher occupancy. That would make more sense. Not in residential zones; outside of maybe hotels. You could say R-4 would make sense to pick up hotels then. The challenge is building further up there. Capri asked if it could go the Planning Commission. Tokos said we would have to have standards for evacuation.

Berman said we're talking about height; and if he's reading the maps right, there's 80 feet plus 30 plus 10; and that doesn't take into account 10-30 feet of subsidence. A 200-foot building is impractical. If it's engineered and they're doing it right, it still would be totally impractical. Tokos said it's not unrealistic to put in the standards that there be an engineer's certification that the design meets or likely would withstand the forces of waves attributed to whatever level of tsunami. He said he could work on language. Berman said the height is the thing. If it's 80 feet, that's what we should be planning for. Capri wondered what elevation that's taken from. Hardy said that waves are typically measured from the ocean floor. Vanderbeck wondered if it could be set up so that it's just for that particular area. She said because when you're talking about anything having to do with height, people will want to build something on top to get higher and will try to do whatever they can. Capri noted that there's no view protection in Newport. Hardy agreed that you don't own air space. Patrick asked what the purple and yellow on the maps indicate. Tokos said they refer to "t-shirt-size characteristics; S, M, L, XL, and XXL. Berman asked, as the color gets lighter is there more extreme flooding? Franklin asked if it would be at sea level. Patrick said mean sea level at that time. Looking at Oceanview, Franklin asked if it's at 70 feet, there would be a 10-foot wave then? Tokos said this is the elevation where they check Oceanview. At about 75 feet, Oceanview gets overtopped with XL or XXL. Vertical escape would be 20 feet. Tokos said if you have developable property and build a house there, it would not be ridiculous to build to withstand 35 feet. Berman said we're talking about Hatfield; that's what initiated this. They're right in the middle of purple. Franklin wondered what's going to happen after the wave when the water's rushing back out and there's no sand left underneath it.

Tokos said we could put some language about having to have an engineer's certification. Hardy asked how long that's good for in terms of the interest of the consumer. Are they protected if it gets passed when it's getting built and then fails ten years down the road? Tokos said probably not. We evaluate at the time of construction; not how long those materials last. Hardy said if the engineer doesn't provide a warranty, then what use is it. Capri said they could hire a structural engineer to do it and then have to hire a geo tech engineer to review it. Tokos said it's not unreasonable for a local jurisdiction to say if you're going to do this, you are going to do it right. Provide engineered plans that set out how it withstands whatever tsunami you are designing to. That knocks out single-family residences. Maybe they're just designing to large; they choose. Berman said we wouldn't dictate, they pick. Then we say, prove it. Franklin said what if somebody builds a cupola on top for escape; who enforces it? He doesn't know how you'd enforce it.

Tokos asked if the Commission wants language that limits this to water-dependent or water-related, or even commercial. Patrick thought so. He doesn't see it working for single-family. Vanderbeck said that hotels could build up in someone's view. Tokos said, or maybe it could be not in an area where you can reasonably get out of there. There's a big chunk in South Beach that can't get out. Hardy asked why build that low anyway. Patrick thought that if we break the 50-foot limit, we don't want to give an open height thing. We might have to write standards for it. He's not enthusiastic about saying you can bust through 50 feet to 70 feet. Tokos said he'd rather not do a variance because the standards aren't a great fit; hardship or practical difficulty in meeting the code. You can meet the code; just don't build vertical evacuation. Berman said he thought it was a conditional use because he noted that in the code above that it says antennas upon the issuance of a conditional use permit. Tokos said he was looking on the back of the code all the way at the bottom where it says adjustment or variance. Berman said they could take out a conditional use permit if they want to exceed 50 feet. Tokos asked Berman what's magical about 50 feet. Berman said that's what's in the code. Tokos said not in water-related; that's 35 feet. He said that one of the standards for a conditional use permit is consistency with the character of the area. If it gets into a contested case, he's not positive that the discretionary criteria the Planning Commission would have to rationalize would withstand an appeal.

Patrick asked how tall is this building going to end up. How much is it breaking the 35-foot limit. Tokos said he believes the full set of materials released indicate they are targeting a large event; not XXL. He doesn't think they could design something to withstand XXL. The question with a discretionary review is what do you want to evaluate against. Patrick said what if we give an exception to go over 35 feet in South Beach. He said we had the same discussion with NOAA. So we better have something to stand on. If all of a sudden they do a 60-foot structure there, we won't hear the end of it. Tokos said if that is a habitable area. It's only for vertical evacuation, and that's a big expense for what it is. If they can only add a safe haven for employees, there's a point where they will stop adding to it. We're making sure they don't have ways of getting additional floors of offices. Berman asked what goes between the 60 feet and the 35 feet. Tokos said raised ceilings, attic area, or just mechanical. Berman said 40 feet would be the floor and then it said add 30% and another 10 feet. Hanselman said that's only proposing vertical evacuation for 40 feet of flood level; it would have to be above that, so about 49 feet. Capri said you're talking 70 feet, and we'd never hear the end of it. Tokos asked what standards do you apply? Concerning the discretionary criteria, we can't use it and put the Planning Commission in a pickle where you can't issue the decision that you want to make. Capri said we can tell them they can't have it unless it's under a certain height. Tokos said you can have a cap. Hanselman asked, if we tell people they can have an evacuation level, do we also have to set standards for what that has to be built to.

Tokos said what if we set it up for water-dependent and water-related because we can justify that essential facilities that are available in other zoning districts can't be put in tsunami zones; and W-1 and W-2 areas would be inundated in a tsunami. Further, you have to provide engineering and geo tech methodology that what you are proposing will withstand the wave velocity you are designing to; and you can't have habitable space above 30 feet. How many projects are you likely to see? Capri said in theory, the Bay Front could have 70-foot buildings. Pacific Shrimp could do it. Patrick said it would be easier for them to evacuate up the hill. Tokos said even with reinforced piling, they would have to swap it out. It would be a huge expense. Capri asked if it could be just for South Beach. Tokos said that McLean Point is another area. The Commissioners said that at McLean Point, they could run across the road. Tokos said that while the Bay Front has an area to evacuate to, there are a lot of tourists and employees. There are constrained avenues and unstable slopes on the Bay Front. They would have twenty to thirty minutes to evacuate. There would be disabled people. By the time they figure out they need to go somewhere, there may not be time to go up hill. Tokos said you could limit it to South Beach; but his suggestion is not to. He thinks the rationale would be better to state it as just in water-related and water-dependent zones. Hardy asked, and those are defined as? Tokos said whatever they're defined as in the code. Hardy said maybe we should look at amending that. Hardy said the only way Hatfield is related to water is to be able to go out on the ocean. That doesn't mean the building siting has to be on the water. Berman said they do run seawater through their facility. Hardy said you can pipe seawater anywhere. She said they have already acknowledged that the existing buildings won't stand up. Even if there's a new building there, they will have to pay payroll to their people even though they can't go to work. She said, why not just go up hill. Tokos said from the City Council there is a lot of momentum particularly in the Hatfield area that they want to see the actual classrooms in the same location as the rest of the agency. Hardy said, in their own words, if they locate the facility up the hill, they are still spending most of the days at Hatfield. Why do they need that facility? Tokos said what getting the students up in Wilder accomplishes is that now they're not down there 24/7. Housing is gone from the campus, so they wouldn't be down there 24/7. Capri said you can't change OSU's opinion. Berman said they have laboratories there. Hardy said, they're classrooms. Tokos said they are going to need access to seawater facilities and some of the other State and Federal agencies. Berman said we're not going to decide where they're going; they are. Hardy said only if they're in compliance with the zoning ordinance. She said they can apply for a variance or a conditional use permit; and those evaluations will start to quell some of those voices saying don't build there.

Tokos said what the City Council asked the Planning Commission to do is explore legislative options as opposed to a variance. Those discretionary standards can be inconsistently applied and appealed over and over again. Practical difficulties are looked at tightly in the courts. Can you do anything on your property? Someone can't get front-yard setback; that's the typical kind of variance that can withstand an appeal. They would say you don't have to do vertical evacuation; what's your hardship? Capri thought that if everyone on the City Council heard that the building would have to be 70-75 feet tall, there would be less interest. It changes the morphology of the buildings in Newport. Tokos said if you want to make sure it's discretionary; what kind of standards do you put at it? With something like a conditional use, you'll never get there. Vanderbeck asked why the City Council wants to accommodate them before they're asked. Tokos said we don't. From the City Council's perspective, they anticipate that something's going to happen. There may be more than one down the road. There are new maps and new understanding of the tsunami risk. The height restrictions were put in before that was known. They feel we should look at it legislatively. They asked the Planning Commission to explore this and tell them what a good tool is. Hardy agreed it would be easier to enforce with legislation rather than a variance. If it's designed properly, you can say this is what you could do. If it's discretionary, you end up all over the place.

Capri said basically the building will be 75 feet tall. Tokos said if they have to engineer it to withstand that kind of wave force, you're talking substantial costs. This is a huge project without additional habitable space and only for life safety purposes at that point. Hardy said they have already indicated that they are willing to reduce the square footage if they reach the \$50 million cap they are looking at. They will end up with a much smaller building.

Tokos said we can get away with requiring engineering certification for a safe place to go, much like with our geologic permits. We are not second guessing them; we are just saying you have to do it and we will accept the engineer's stamp. Capri said that

takes out the Bay Front because they won't be able to do that on piles. Berman said if we get language in there for a 75-foot building, that's not in character with the vision of South Beach. He doesn't want the views and the feeling of the marine area disrupted with a tall building. Tokos said you have the LNG tank. Patrick said you have the jail at 60 feet to the elevator tower. Hanselman said they are not required to build vertical evacuation. If they want it, it has to meet these engineering standards. We're already dealing with an unknown class of tsunami. He said we will have to change everything.

Tokos asked if the Commissioners were comfortable with the reference to the TIM (tsunami inundation maps); and they confirmed that they were. Tokos said his thought for what he can do for an upcoming work session is to bring back two options. One would be beefed-up nondiscretionary engineering standards and geo tech. Then a discretionary option where he will try to make something up where there would be a hearing. Capri asked if you could base it on occupancy. Patrick said they will open up that building to everybody down there. Capri said he understands that's choosing life. Patrick said we could always limit it to 35 feet, and they could do it; or we could say you have to run to Safe Haven Hill, and that's your only choice.

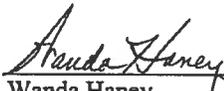
Tokos said one thing advantageous for having vertical evacuation down there is the same as for the Bay Front. You have the aquarium, Hatfield, and RV parks. It will take time for them to figure out what's going on, and some can't get out. Somebody will know to go to that vertical evacuation site. It's a safety measure. Patrick said all of these things assume earthquakes. At that level we don't know how much that is going to shift everything up and down. It's a shear guess. Hardy agreed that we don't have direct experience here. Capri asked what about the handicapped and was told that it's assumed people will help others.

Tokos said he will put together discretionary and nondiscretionary standards for further discussion at a work session. He thinks we'll get nowhere with discretionary. There was discussion about the occupancy limit of Safe Haven Hill. Tokos said the thought is that some people won't be able to get there because it's too far or they can't, so it's better to have vertical evacuation where they can go. We want to create different opportunities because we don't know where they'll go. Berman said for evacuations, most of the people at Hatfield are healthy. Tokos said it's more the tourists.

Tokos said the Commission could go through with legislative with options "A" and "B" and say you prefer "A," but here is option "B" the Council can also consider.

4. **Adjournment.** Having no further discussion, the meeting adjourned at 7:33 p.m.

Respectfully submitted,



Wanda Haney,
Executive Assistant

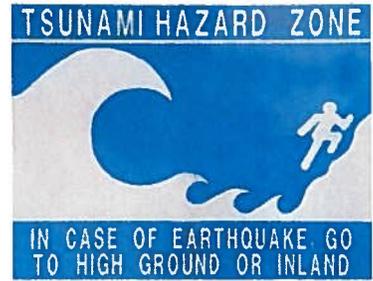


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Land Conservation
and Development

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**Preparing for a
Cascadia Subduction
Zone Tsunami:
A Land Use Guide
for Oregon
Coastal
Communities**

CHAPTER 4: Development Code Provisions



Chapter 4: Development Code Provisions

Implementation of comprehensive plan policies and other related community development goals is typically accomplished through the specific regulations of the development code. The model code sections of this chapter are intended to provide templates for communities to follow in incorporating land use regulations addressing tsunami risk in their local development codes. Most of the substantive provisions are incorporated into the Tsunami Hazard Overlay. The use of a tsunami-specific overlay provides a mechanism to apply standards within the defined tsunami hazard area. This approach thus provides an additional tier of regulations specifically addressing tsunami risk, which are applied to new development in conjunction with the standards of the underlying zone.

As with any model code, not all of the approaches or standards incorporated into the Land Use Guide will be suitable for use in every community. Local governments should carefully consider the community's exposure to tsunami hazard, acceptable level of risk, and support for tsunami preparation in evaluating the appropriate use of the development code provisions. In general, most of the individual sections of the overlay zone are "severable", that is they can be used on an individual basis, or in any combination, when being adapted for use in a community's land use code.

4.1 Tsunami Hazard Overlay Zone

The Tsunami Hazard Overlay zone is designed to serve as the principal implementation mechanism for land use measures addressing tsunami risk. As the name indicates, it is designed to be applied in the form of an overlay zone, i.e. in combination with underlying base zones. The boundaries of the overlay would correspond to the area of the jurisdiction subject to inundation from a local source tsunami as indicated in Section 4.1.2 below. In form and application, it is similar to the flood hazard overlay zones in place in most jurisdictions.

The model overlay focuses on three main approaches to reducing risk and increasing resilience:

- Placing restrictions and limitations on certain categories of uses. These limitations apply primarily to uses which present a high potential for life safety risk, or to uses which provide an essential function during and after a disaster event. ORS 455, which is implemented through the state building code, currently prohibits certain facilities and structures in the tsunami inundation zone as defined by the Oregon Department of Geology and Mineral Industries as indicated in Section 4.1.2 below. The model overlay incorporates these requirements, and also provides examples for local jurisdictions which may choose to limit other uses, or provide a higher margin of safety for some essential facilities.
- Integrating the development and improvement of evacuation infrastructure into the land use and development review process.

Tip: The model code sections of this chapter are intended to provide examples for communities to follow in incorporating land use regulations addressing tsunami risk into their local development codes.

Tip: See Chapter 6 for more information on evacuation route planning.

Tip: A development overlay zone can provide incentives for development designs which reduce risk and increase resiliency.

These provisions establish requirements to incorporate appropriate evacuation measures and improvements in most new development, consistent with an overall evacuation plan for the community. It is important to note that effectiveness of this component of the overlay is largely dependent upon the development and adoption of an Evacuation Route Plan. This plan identifies evacuation needs, designates routes, establishes system standards, and identifies needed improvements to the local evacuation system. Such a plan is essential to the implementation of evacuation route development/improvement in conjunction with the land use review and approval process. Evacuation route plans may be simple or more complex, depending on the circumstances and needs of the jurisdiction. Every jurisdiction is urged to develop such a plan as a tool to enhance the development of evacuation infrastructure. Please see Chapter 6 of the guide for detailed guidance on the development of an Evacuation Route Plan.

- Providing incentives for development designs which reduce risk and increase resiliency. The overlay incorporates an optional development process which would permit modifications to many code standards when an overall design incorporates higher degrees of risk reduction. Similar in concept to a planned development, this approach permits deviation from the standard, prescriptive dimensional requirement of the code in order to encourage designs and development measures that achieve higher levels of risk reduction.

4.1.1 Tsunami Hazard (TH) Overlay Zone

1.100 Definitions for Section 1.110

As used in Section 1.110:

(1) “Essential Facilities” means:

(a) Hospitals and other medical facilities having surgery and emergency treatment areas; (b) Fire and police stations;

(c) Tanks or other structures containing, housing or supporting water or fire-suppression materials or equipment required for the protection of essential or hazardous facilities or special occupancy structures;

(d) Emergency vehicle shelters and garages;

(e) Structures and equipment in emergency preparedness centers;

(f) Standby power generating equipment for essential facilities; and

(g) Structures and equipment in emergency preparedness centers.

(2) “Hazardous facility” means structures housing, supporting or containing sufficient quantities of toxic or explosive substances to be of danger to the safety of the public if released.

(3) “Special occupancy structures” means

(a) Covered structures whose primary occupancy is public assembly with a capacity greater than 300 persons;

(b) Buildings with a capacity of greater than 250 individuals for every public, private or parochial school through secondary level or child care centers;

- (c) Buildings for colleges or adult education schools with a capacity of greater than 500 persons;
- (d) Medical facilities with 50 or more resident, incapacitated persons not included subsection (a);
- (e) Jails and detention facilities; and
- (f) All structures and occupancies with a capacity of greater than 5,000 persons.

(Note: The above definitions are taken from ORS 455.446)

- (4) “Substantial improvement” means any repair, reconstruction, or improvement of a structure which exceeds 50 per cent of the real market value of the structure.
- (5) “Tsunami vertical evacuation structure” means a building or constructed earthen mound that is accessible to evacuees, has sufficient height to place evacuees above the level of tsunami inundation, and is designed and constructed with the strength and resiliency needed to withstand the effects of tsunami waves.
- (6) “Tsunami Inundation Maps (TIMs)” means the map, or maps in the DOGAMI Tsunami Inundation Map (TIM) Series, published by the Oregon Department of Geology and Mineral Industries, which cover(s) the area within [jurisdiction name].

4.1.2 Tsunami Hazard Overlay Zone

(1) Purpose

The purpose of the Tsunami Hazard Overlay Zone is to increase the resilience of the community to a local source (Cascadia Subduction Zone) tsunami by establishing standards, requirements, incentives, and other measures to be applied in the review and authorization of land use and development activities in areas subject to tsunami hazards. The standards established by this section are intended to limit, direct and encourage the development of land uses within areas subject to tsunami hazards in a manner that will:

- (a) Reduce loss of life;
- (b) Reduce damage to private and public property;
- (c) Reduce social, emotional, and economic disruptions; and
- (d) Increase the ability of the community to respond and recover.

Significant public and private investment has been made in development in areas which are now known to be subject to tsunami hazards. It is not the intent or purpose of this section to require the relocation of or otherwise regulate existing development within the Tsunami Hazard Overlay Zone. However, it is the intent of this section to control, direct and encourage new development and redevelopment such that, over time, the community’s exposure to tsunami risk will be reduced.

(2) Applicability of Tsunami Hazard Overlay Zone

All lands identified as subject to inundation from the XXL magnitude local source tsunami event as set forth on the applicable Tsunami Inundation Map(s) (TIM) published by the Oregon Department of Geology and Mineral Industries (DOGAMI) are subject to the requirements of this section.

Tip: This section includes sample code provisions that may be customized for your community.

Note: The overlay zone should include all of the area subject to inundation by the highest local source tsunami event, XXL, depicted on the DOGAMI TIMs. By using the limits of the XXL event, all of the area subject to tsunami risk will be included.

However, the regulatory and other standards may be applied differentially within the overlay, based on the different levels of risk for the five modeled events, the purpose of the standard, and overall community objectives.

(3) Tsunami Depth Information Required

Except for single family dwellings on existing lots and parcels, all applications for new development, substantial improvements and land divisions in areas subject to the requirements of this section shall include, in addition to the other information required by this chapter, data specifying the maximum depth of inundation on the subject property from the M, L, XL and XXL local source tsunami events as modeled on the applicable Tsunami Inundation Map (TIM) and other data products available from the Oregon Department of Geology and Mineral Industries (DOGAMI).

(4) Uses

In the Tsunami Hazard Overlay Zone, except for the prohibited uses set forth in subsection (5), all uses permitted pursuant to the provisions of the underlying zone may be permitted, subject to the additional requirements and limitations of this section.

(5) Prohibited Uses

Unless authorized in accordance subsection (6), the following uses are prohibited in the specified portions of the Tsunami Hazard Overlay Zone:

Note: Under ORS 455.446, the uses listed in subsection (a) are prohibited within the tsunami inundation zone as adopted by the DOGAMI governing board, currently the “L” local source event. Based on individual circumstances and overall risk to the community, local governments may consider establishing further limits on uses based on the need to reduce exposure to tsunami risk. This could include extending the prohibition to include other important and/or high risk uses, expanding the area subject to the prohibition by specifying a larger (e.g. XXL) design event, or some combination of these methods. The provisions of subsection (b) provide one example of an approach to extending use limitations beyond the minimum prohibitions of ORS 455.446. In any case, use prohibitions and/or limitations beyond the minimum requirements of ORS 455.446 should be based on the risk tolerance, overall exposure to risk, and individual needs of the community.

(a) In areas identified as subject to inundation from the [specify design event; L is the minimum under ORS 455.446] magnitude local source tsunami event as set forth on the Tsunami Inundation Map (TIM), the following uses are prohibited:

- (A) Hospitals and other medical facilities having surgery and emergency treatment areas.
- (B) Fire and police stations.
- (C) Structures and equipment in government communication centers and other facilities required for emergency response.
- (D) Buildings with a capacity greater than 250 individuals for every public, private or parochial school through secondary level or child care centers.
- (E) Buildings for colleges or adult education schools with a capacity of greater than 500 persons.
- (F) Jails and detention facilities.

Note: The following Essential Facilities and Special Occupancy Structures are currently permitted in the tsunami inundation zone, subject to consultation with DOGAMI regarding mitigation for tsunami risks.

See ORS 455.447 (4). It is recommended that local governments evaluate these uses and relative levels of risk to determine whether it is appropriate to place additional limitations on these uses in higher risk areas, as provided in the example below.

(b) In areas identified as subject to inundation from the [choose design event; recommend M] magnitude local source tsunami event as set forth on the Tsunami Inundation Map (TIM), the following uses are prohibited:

- (A) Tanks or other structures containing, housing or supporting water or fire-suppression materials or equipment required for the protection of essential or hazardous facilities or special occupancy structures.
- (B) Emergency vehicle shelters and garages.
- (C) Structures and equipment in emergency preparedness centers.
- (D) Standby power generating equipment for essential facilities.
- (E) Covered structures whose primary occupancy is public assembly with a capacity of greater than 300 persons.
- (F) Medical facilities with 50 or more resident, incapacitated patients.

Note: The following uses are not subject to regulation or review under ORS 455.446-447, but in adopting land use standards for tsunami risk reduction, it is suggested that local governments consider placing limitations on some or all of these uses, particularly in higher risk areas (e.g. M event), based on the overall needs of their community.

- (G) Residential uses, including manufactured home parks, of a density exceeding 10 units per acre;
 - (H) Hotels or motels with more than 50 units.
- (c) Notwithstanding the provisions of [cite non-conforming use section of code], the requirements of this subsection shall not have the effect of rendering any lawfully established use or structure nonconforming.

Note: The Tsunami Hazard Overlay is, in general, not intended to apply to or regulate existing uses or development. A provision such as (c) is recommended to preclude the application of nonconforming use restrictions.

(6) Use Exceptions

A use listed in subsection (5) of this section may be permitted upon authorization of a Use Exception in accordance with the following requirements:

(a) Public schools may be permitted upon findings that there is a need for the school to be within the boundaries of a school district and fulfilling that need cannot otherwise be accomplished.

(b) Fire or police stations may be permitted upon findings that there is a need for a strategic location.

(c) Other uses prohibited by subsection (4) of this section may be permitted upon the following findings:

(A) There are no reasonable, lower-risk alternative sites available for the proposed use;

(B) Adequate evacuation measures will be provided such that life safety risk to building occupants is minimized; and,

(C) The buildings will be designed and constructed in a manner to minimize the risk of structural failure during the design earthquake and tsunami event.

(d) Applications, review, decisions, and appeals for Use Exceptions authorized by this subsection shall be in accordance with the requirements for a Type III procedure as set forth in Section [cite administrative/procedural section of code].

(7) Evacuation Route Improvement Requirements

Note: The following provisions are largely dependent upon an adopted Evacuation Route Plan that identifies evacuation needs, designates routes, establishes system standards, and identifies needed improvements to the local evacuation system. Such a plan is essential to the implementation of evacuation route development/ improvement in conjunction with the land use review and approval process. Evacuation route plans may be simple or more complex, depending on the circumstances and needs of the community. Every jurisdiction is urged to develop such a plan as a tool to enhance the development of evacuation infrastructure. Please see Chapter 6 of the Guide for detailed guidance on the development of an Evacuation Route Plan.

Except single family dwellings on existing lots and parcels, all new development, substantial improvements and land divisions in the Tsunami Hazard Overlay Zone shall incorporate evacuation measures and improvements, including necessary vegetation management, which are consistent with and conform to the adopted Evacuation Route Plan. Such measures shall include:

(a) On-site improvements:

(A) Improvements necessary to ensure adequate pedestrian access from the development site to evacuation routes designated in the Evacuation Route Plan in all weather and lighting conditions.

(B) Frontage improvements to designated evacuation routes that are located on or contiguous to the proposed development site, where such improvements are identified in the Evacuation Route Plan. Such improvements shall be proportional to the evacuation needs created by the proposed development.

(C) Where identified in the Evacuation Route Plan as the only practicable means of evacuation, tsunami evacuation structure(s) of sufficient capacity to accommodate the evacuation needs of the proposed development.

(b) Off-site improvements:

Improvements to portions of designated evacuation routes that are needed to serve, but are not contiguous to, the proposed development site, where such improvements are identified in the Evacuation Route Plan. Such improvements shall be proportional to the evacuation needs created by the proposed development.

(c) Evacuation route signage consistent with the standards set forth in the Evacuation Route Plan. Such signage shall be adequate to provide necessary evacuation information consistent with the proposed use of the site.

(d) Evacuation route improvements and measures required by this subsection shall include, at a minimum, the following:

(A) Improved streets and/or all-weather surface paths of sufficient width and grade to ensure pedestrian access to designated evacuation routes in all lighting conditions;

(B) Improved streets and paths shall provide and maintain horizontal clearances sufficient to prevent the obstruction of such paths from downed trees and structure failures likely to occur during a Cascadia earthquake; and

(C) Such other improvements and measures identified in the Evacuation Route Plan (e) When it is determined that improvements required by this subsection cannot be practicably accomplished at the time of development approval, payment in lieu of identified improvements shall be provided in accordance with [cite applicable section of code establishing standards and requirements for payment-in-lieu].

(8) Tsunami Evacuation Structures

(a) All tsunami evacuation structures shall be of sufficient height to place evacuees above the level of inundation for the XXL local source tsunami event.

Note: Depending on individual circumstances, some communities may find that building evacuation structures to the elevation of the XXL event is impracticable. In such cases, communities may choose to consider a case-by-case process to allow for exceptions to this elevation requirement. It is recommended that tsunami evacuation structures not be permitted to a standard lower than the L local source tsunami event and anything below XXL may be at some risk.

(b) Tsunami evacuation structures are not subject to the building height limitations of this chapter.

(9) Flexible Development Option

(a) The purpose of the Flexible Development Option is to provide incentives for, and to encourage and promote, site planning and development within the Tsunami Hazard Overlay Zone that results in lower risk exposure to tsunami hazard than would otherwise be achieved through the conventional application of the requirements of this chapter. The Flexible Development Option is intended to:

(A) Allow for and encourage development designs that incorporate enhanced evacuation measures, appropriate building siting and design, and other features that reduce the risks to life and property from tsunami hazard; and

(B) Permit greater flexibility in the siting of buildings and other physical improvements and in the creation of new lots and parcels in order to allow the full realization of permitted development while reducing risks to life and property from tsunami hazard.

(b) The Flexible Development Option may be applied to the development of any lot, parcel, or tract of land that is wholly or partially within the Tsunami Hazard Overlay Zone.

Note: Subsection (c) is intended to provide maximum flexibility for development and for achieving risk reduction by permitting any type or mix of uses, notwithstanding the underlying zoning. Local governments should evaluate this allowance to determine if it is appropriate for application within their jurisdiction. The other provisions of this section may still be fully utilized without including this provision.

(c) The Flexible Development Option may include any uses permitted outright or conditionally in any zone, except for those uses prohibited pursuant to subsection (5) of this section.

(d) Overall residential density shall be as set forth in the underlying zone or zones. Density shall be computed based on total gross land area of the subject property, excluding street right-of-way.

(e) Yards, setbacks, lot area, lot width and depth, lot coverage, building height and similar dimensional requirements may be reduced, adjusted or otherwise modified as necessary to achieve the design objectives of the development and fulfill the purposes of this section.

(f) Applications, review, decisions, and appeals for the Flexible Development Option shall be in accordance with the requirements for a Type II [or Type III] procedure as set forth in Section [cite administrative/procedural section of code].

(g) Approval of an application for a Flexible Development Option shall be based on findings that the following criteria are satisfied:

(A) The applicable requirements of sub-paragraphs (b) and (d) of this subsection are met; and

(B) The development will provide tsunami hazard mitigation and/or other risk reduction measures at a level greater than would otherwise be provided under conventional land development procedures. Such measures may include, but are not limited to:

(i) Providing evacuation measures, improvements, way finding techniques and signage at a level greater than required by subsection (7) of this section;

(ii) Providing tsunami evacuation structure(s) which are accessible to and provide capacity for evacuees from off-site;

(iii) Incorporating building designs or techniques which exceed minimum structural specialty code requirements in a manner that increases the capacity of structures to withstand the forces of a local source tsunami; and

(iv) Concentrating or clustering development in lower risk portions or areas of the subject property, and limiting or avoiding development in higher risk areas.

(10) Hazard Acknowledgement and Disclosure Statement

(a) All applications for new development or substantial improvements in the Tsunami Hazard Overlay Zone shall be accompanied by a Hazard Acknowledgement and Disclosure Statement, executed by the property owner, which sets forth the following:

(A) A statement that the property is subject to inundation by a local source Cascadia event tsunami, including the DOGAMI scenarios (S, M, L, XL, or XXL) that could potentially flood the site, and that development thereon is subject to risk of damage from tsunami;

(B) A statement that a local source tsunami poses a potential life safety threat to occupants of the property, and that the protection of life safety will require occupants to evacuate to high ground in the event of a local source tsunami; and

(C) A statement acknowledging that the property owner accepts and assumes all risks of damage from tsunami associated with the development of the subject property.

(b) Approval of new development or substantial improvements in the Tsunami Hazard Overlay Zone shall be conditioned to require the recording of the required Hazard Acknowledgement and Disclosure Statement in the deed records of [insert name of county].

