

#### **CITY OF ROCKAWAY BEACH**

#### **Notice of Public Hearing**

NOTICE IS HEREBY GIVEN that the City of Rockaway Beach Planning Commission will hold a public hearing on **Thursday, October 19<sup>st</sup> at 4:30 p.m.** in City Hall located at 276 S. Highway 101, Rockaway Beach, Oregon. The purpose of the public hearing is consider the following request:

The applicant, Troy Johns, is requesting tentative plan approval of an 85-lot subdivision on property zoned R-3 (Lower Density Residential). The Case File for this request is #SUB-23-01. The subject property is approximately 18.9 acres in size and is located south of the existing Lake Lytle Estates Subdivision at the south terminus of Tillamook, Necarney, and Francis Streets. The property is identified as on Tillamook County Assessor's Map 2N-10W as Tax Lot 5201.

You are receiving this notification as you are the owner of the subject property, or are a registered property owner within 200 feet of the applicant's property and are entitled to notice.

**APPLICABLE CRITERIA:** Criteria for the request are specified in the Rockaway Beach Zoning Ordinance (RBZO) Section 3.090, Lower Density Residential Zone, Section 3.080, Special Wetlands Area, Section 3.092, Flood Hazard Overlay Zone, Section 3.132, Wetland Notification Overlay Zone, and the Rockaway Beach Subdivision Ordinance.

Oral public testimony will be heard and written public comments will be accepted at or prior to the hearing. If submitting comments prior to the hearing, deliver to the City Hall at the address given above, or mail to Planning Department at P.O. Box 5, Rockaway Beach, OR 97136. Please use file number SUB-23-01 on written comments, and include your name, mailing address, and phone number.

The staff report will be prepared no less than seven days prior to the hearing for review at City Hall. Hard copies will be available upon request to the City free of cost. All other documents and evidence related to this land use action shall be incorporated into an Official Record and made available for review at City Hall upon request.

Failure to raise an issue in person, in writing at or prior to the close of the hearing, or failure to provide statements or evidence sufficient to afford the Planning Commission and other interested parties an opportunity to respond to the issue constitutes forfeiture of the right to appeal the decision of the Planning Commission. Failure to specify as to which criteria the comments are directed precludes an appeal based on that criterion.

Responsible Official: Mary Johnson City Planner (503) 374-1752 <u>cityplanner@corb.us</u> City of Rockaway Beach, Oregon 276 S. Highway 101, PO Box 5 Rockaway Beach, OR 97136 (503) 374-1752 FAX (503) 355-8221 \* cityhall@corb.us



APPLICATION FOR SUBDIVISION
Applicant Name: TROY JOHNS
Mailing Address: 1064 W. F3TH Street STE220 Vancoubr WA
Email: troy @ urbannw. com
Phone Number: 360 600 4425
Owner(s) Name (If other than applicant): SAA
Mailing Address: 1621 518 84th =7 Unnuy WA PEGGY
Email: Schmeling 1 0 pol. Can
Phone Number: 369- 903 - 6850
Property Location:
Map: 2N10 Tax Lot: 5201 \$ 4200 Block: Lot(s):
Situs Address:
Name of Proposed Subdivision: LAKE LYTLE ESPATES UNITS 4,5,64-
Consisting of $18.90$ acers divided into $85$ lots, proposed in $4$ phases.
Township T2N Range RIOW Section 29 Land Use Zone R-3
See attached subdivision criteria.

Attach a scale drawing showing the dimensions of the property, adjacent street(s). dimensions of any existing structures and dimensions of proposed development. Applicant must include with this application twelve (12) copies of proposed plans.

Date: 7-10-23 7-10-23 TRoy A.Johns Applicant Signature: Roberta Schmely N-23 Date: Property Owner Signature

If the applicant is other than the owner, the owner hereby grants permission for the applicant to act on his/her behalf.

The City of Rockaway Beach is an Equal Opportunity Employer and TTY accessible at http://www.oregonrelay.com

Please attach the name, address, email address, phone number and signature of any additional property owners

FOR OFFICE USE ONLY:		
Subdivision Fee is \$ 1,000.00 + \$ 20.00 Appeal Portion is \$ 1,100.00	) per lot	
Date Received:	Received By:	
Fee Paid:	Receipt No.:	
Date of Notice:		
Notice Published:		ana ana amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o destantsy amin'ny faritr'o destantsy amin'ny faritr'
Public Hearing (s):		
Applicant meets criteria and standard: 1- 10. [] Yes [] No	s as described in the Subdivision Ordinance	, General Provisions, Sections
Applicant meets criteria and standard 11-17. [] Yes [] No	s as described in the Subdivision Ordinance	, Subdivision, Final Plat, Sections
City Planner Signature:		_ Date:
Granted:		
Denied:		
Date of Order:		
Final Date to Appeal:		

The City of Rockaway Beach is an Equal Opportunity Employer and TTY accessible at http://www.oregonrelay.com

### APPLICANT'S STATEMENT FOR:

Lake Lytle Estates Preliminary Subdivision

**SUBMITTED TO:** City of Rockaway Beach, Oregon

June 2023

The Lake Lytle Estates project was an approved project in the City of Rockaway Beach in which the approval has expired. There were many economic reasons for the delays in development and misunderstandings of timelines by development team members. Over the years, steps toward development have been taken, including logging of the site and preparation of engineering plans that were not yet submitted for review. The Applicant is resubmitting the original application materials for review and consideration for a new approval.

During the reorganization of the project, the original Wetland Delineation has been verified by a new Biologist, Preliminary Plans have been recreated by a new Engineer, and the Survey Data has been verified by a new Surveyor.

The Applicant understands that there will be a certain amount of "catch up" to do after the amount of time since the original approval for the new development team and new City Staff. The Applicant also understands there may be application materials that need to be updated during the review process and will work with City Staff to provide any needed information. The Applicant is willing to accept the previous Conditions of Approval but understands that some of the Conditions may not be needed now, or that other Conditions may now be needed.

The Applicant looks forward to working with the City of Rockaway Beach to re-establish approval of the Lake Lytle Estates project, and to the development of the site providing future housing.

# LAKE LYTLE ESTATES UNITS 4, 5, 6 &7 Rockaway Beach, Oregon Preliminary Plans



Site Location

## **Project Information**

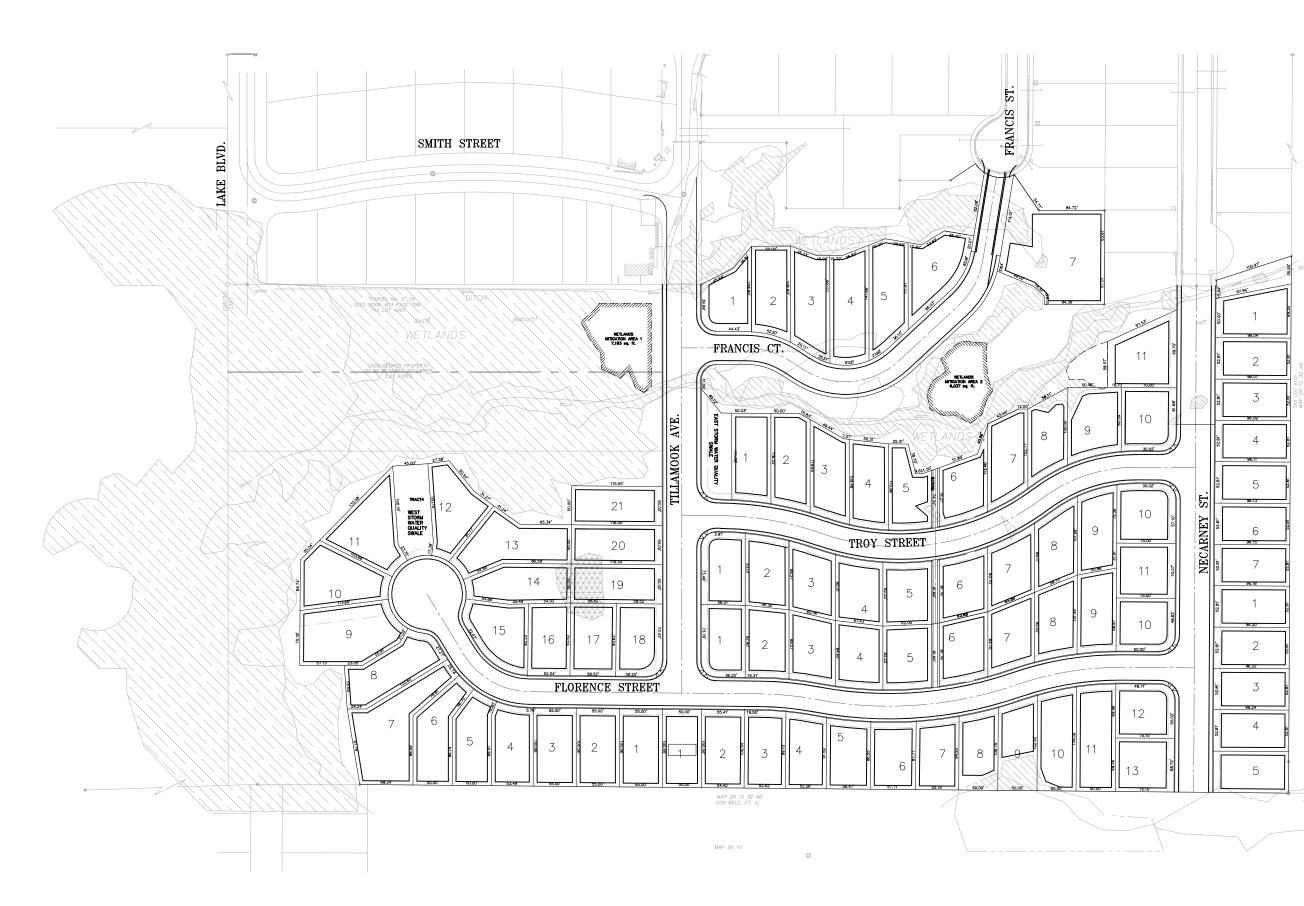
Tax Map and Lots

Portion of SW 1/4 SE 1/4 and SE 1/4 SW 1/4, SEC. 29, T2N, R10W, Willamette Meridian

Tax Lot 5201, Map 2N 10 and Tax Lot 4200, Map 2N 10 29DC (Tax Lot 4200 is a 39' strip of land, 605' long located on the south side of Block 1, Lake Lytle Estates, extending from the west R/W line of Lake Blvd. to the east R/W line of Tillamook Avenue)

Landuse Lot Size Range: Total Lots: Gross Area: Density: Current Zoning: Adjacent Zones: Proposed Use:	85 18.90 4.50 R-3 R-3 to SA to	) - 15,151 square feet ) acres lots per acre o the north and east, R-R to the south, and the west e Family Residences
Current Use:	Vacar	nt
Site Access:	Franc	is Street, Lake Blvd., Tillamook Ave. and Necarney St.
Utilities		
Domestic Water:		City of Rockway Beach, OR
Sanitary Sewage Dispo	osal:	City of Rockaway Beach, OR
Electrical Power:		Tillamook People's Utility District
Fire Protection:		City of Rockaway Beach, OR
Natural Gas:		None
CABLE TELEVISION:		Charter Communications
Telephone Service:		Embarg
·		•

All lots are subject to all easements, restrictions, and rights-of-way of Record and those common and apparent on the land. Each lot will have sepaate water, sewer, and utility services.



## **Preliminary Plat Layout**

## **Owner / Applicant:**

Troy Johns 1004 W. 13th Street, Suite 220 Vancouver, WA 98660

### **Civil Engineer:**

NW Consilio LLC 2410 NE 22nd Ave Portland, OR 97212 (503) 415-0424

### Wetlands Consultant

Rorik Environmental Services 37552 SE Rachael Drive Sandy, OR 97005 (503) 668-8660

EXPIRES 241	ALAN ALAN	AL EN ONS	NA SCITE ilio L nd A	ve
LAKE LYTLE ESTATES UNITS 4, 5, 6 & 7	ROCKAWAY BEACH, OREGON		COVER SHEET	
REVISIONS				
NO. DATE.				
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Apr 27, 2023 – 11:39am

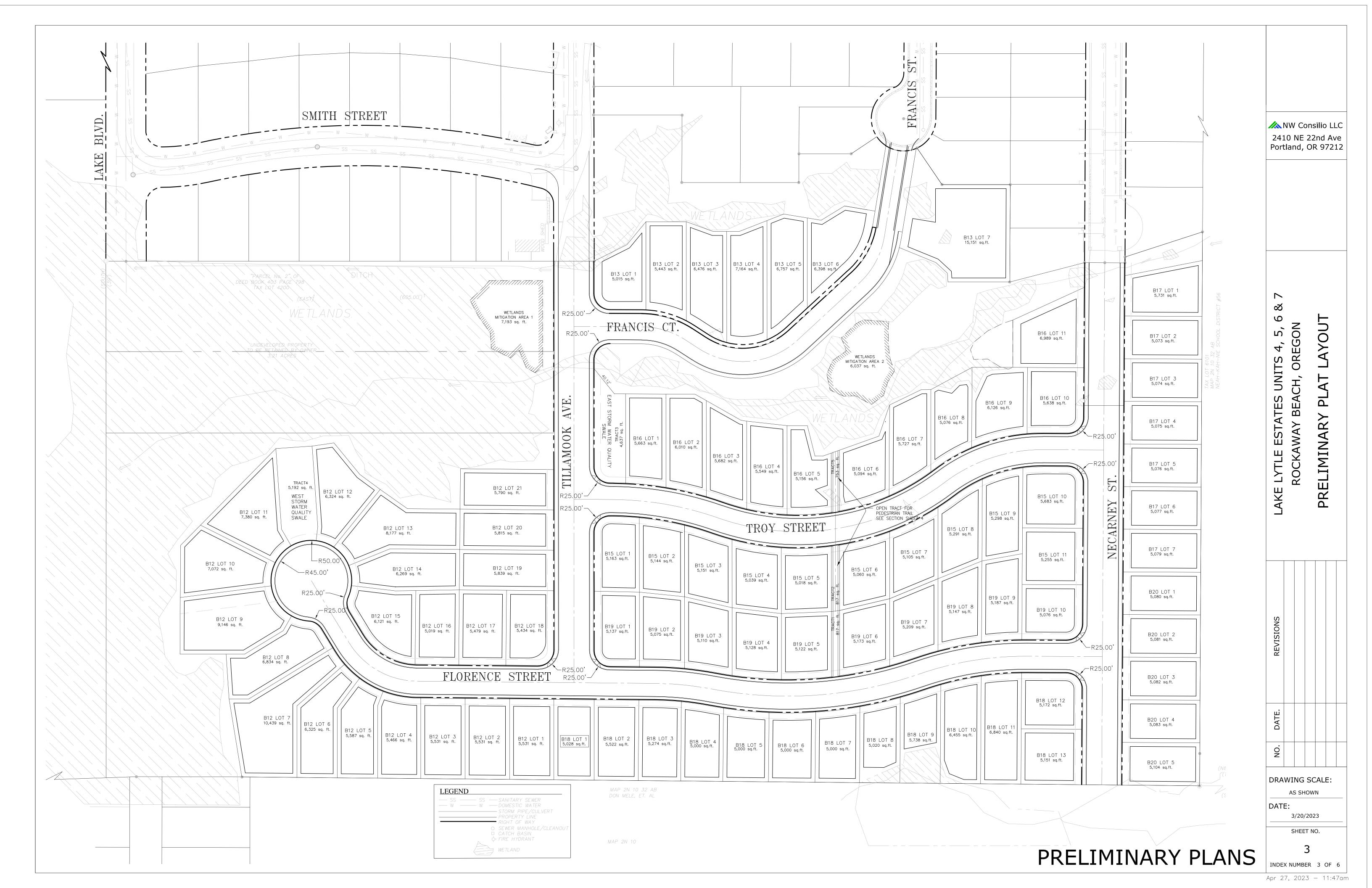
## **Index of Drawings**

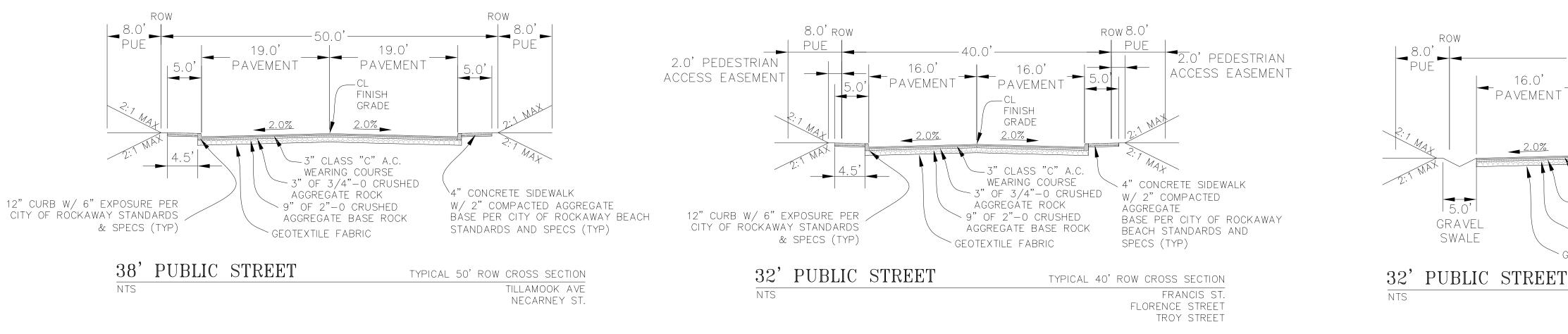
SHEET DRAWING TITLE

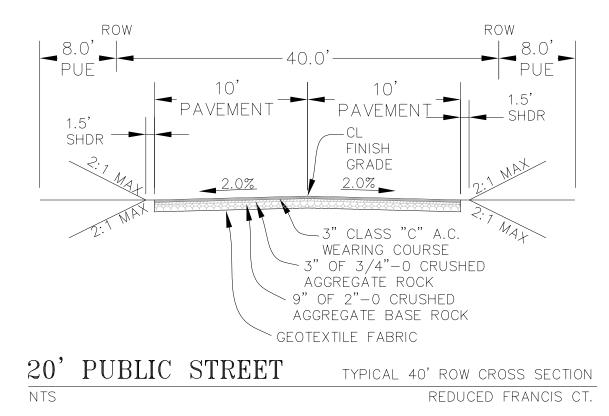
- 1 COVER SHEET
- 2 EXISTING SITE CONDITIONS
- 3 PRELIMINARY PLAT
- 4 STREET SECTIONS
- 5 PRELIMINARY GRADING & EROSION CONTROL PLAN
- 6 PRELIMINARY UTILITY PLAN

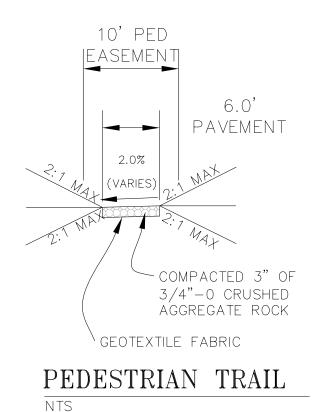
## PRELIMINARY PLANS

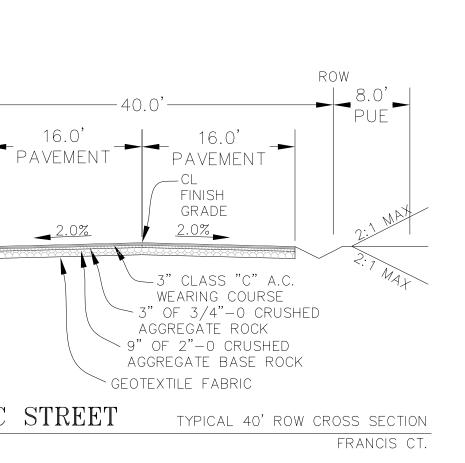




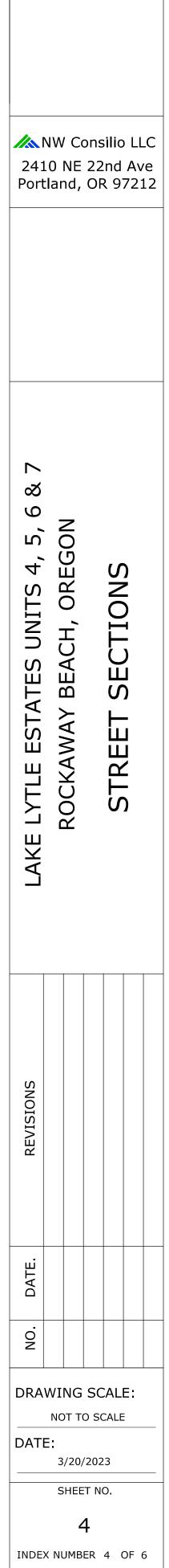


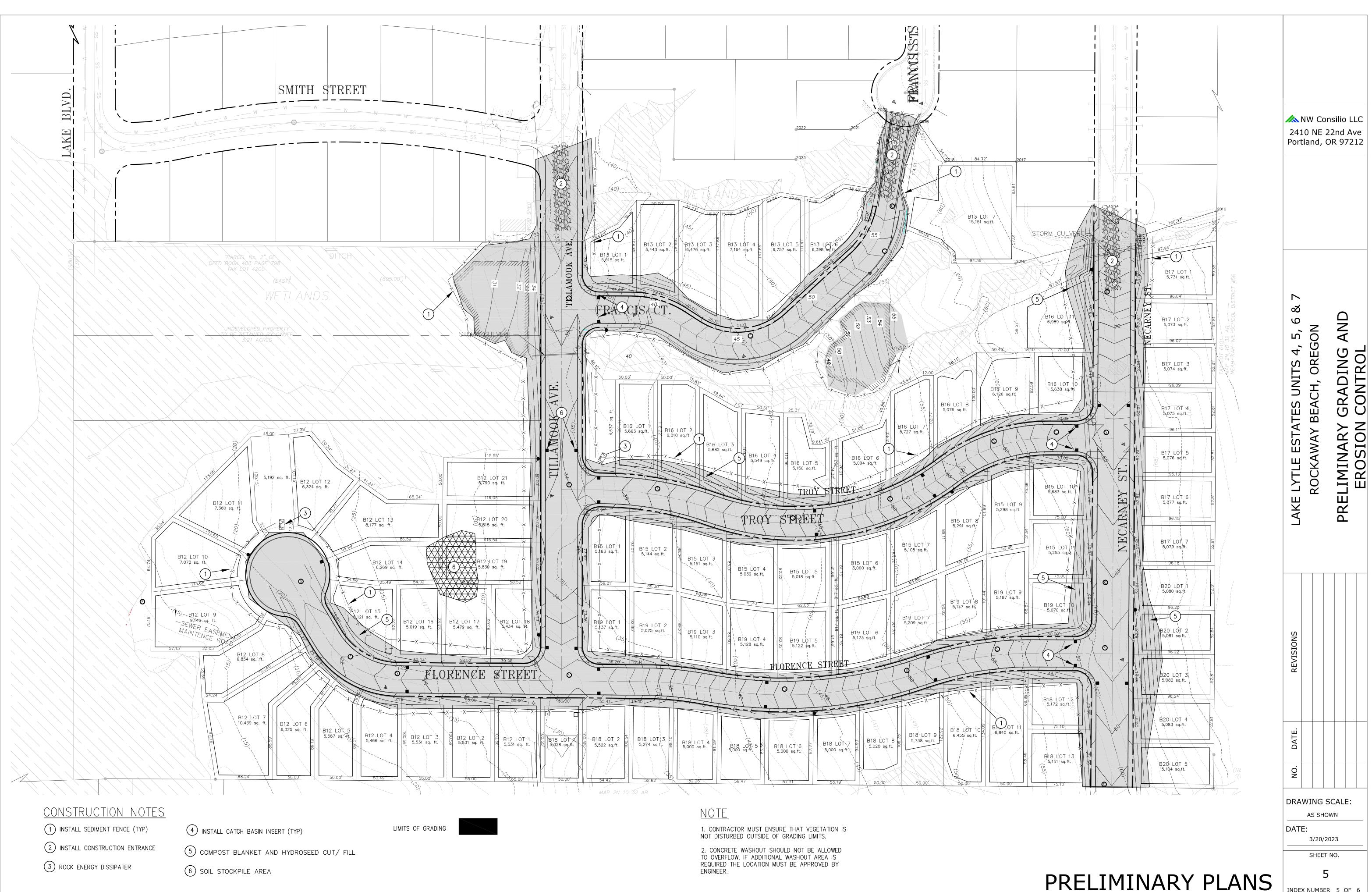






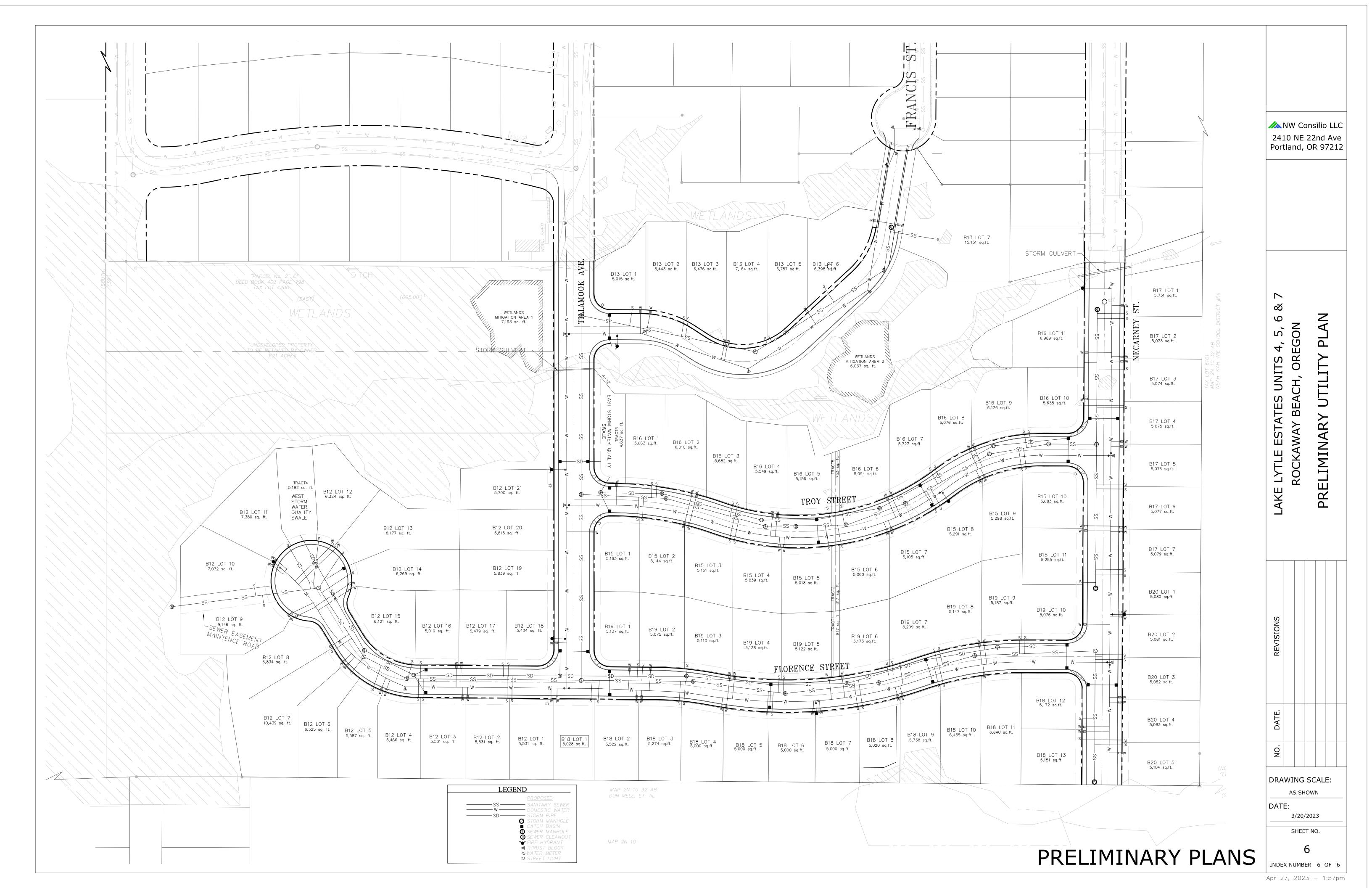






INDEX NUMBER 5 OF 6

Apr 27, 2023 – 1:17pm



## Burden of Proof for Lake Lytle Estates Units 4 Through 7

Tentative Subdivision Plan Review for an Eighty-Five Lot Subdivision





June 6, 2010

Application Goes Here

### Lake Lytle Estates Units 4 Through 7

Tentative Subdivision Plan Review for an Eighty-Five Lot Subdivision

Property Owners	Robert W. Schmeling and Troy Johns 1621 84 <sup>th</sup> Court Vancouver, Washington 98664
Applicant:	Troy Johns 12432 NE 20th Street Vancouver, Washington 98684 Phone: (360) 600-4425
Planners/	Otak, Inc.
Engineers:	Richard Stelzig, PE
	Duncan Brown, Senior Planner 4253-A HWY 101 NORTH Gearhart, Oregon 97138 Phone: (503) 738-3425 Fax: (503) 738-7455
Site:	Map 2N 10W, Tax Lot 5201
	Current Zoning is R-3, Lower Density Residential
Request:	Tentative Subdivision Plat approval for an 85-lot residential subdivision, including two open space tracts, on an 18.90-acre site. The subdivision will be developed in four phases. Residential lots will range from 5,000 to 15,151 square feet in area with an average of 5,768 square feet.

### Lake Lytle Estates Units 4 Through 7 An Eighty-Five Lot Subdivision

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- C. Draft Covenants, Conditions, and Restrictions (CC&Rs)
- D. Wetland Delineation Report to the Oregon Department of State Lands
- E. Proposed Wetlands Mitigation Plan
- F. Proposed Wetlands Sign
- G. Photographs of the Site

#### I. INTRODUCTION

#### **Project Description**

An 85-lot subdivision, to be developed in four phases on an 18.90-acre tract of land east of Lake Lytle, is proposed. The subdivision is a continuation of the existing Lake Lytle Estates development north of the site. The proposed new phases will be known as Lake Lytle Estates Units 4 through 7. The subdivision will cluster the detached single-family residences on the upland portion of the site, allowing preservation of land along a small creek containing significant wetlands forested with large spruce trees, and the wetland boundary for Lake Lytle along the west site boundary.

A goal of the development is to provide a quality residential addition to the Lake Lytle Estates neighborhood in a manner that avoids adverse impacts to wetlands and other significant natural resources. To achieve this, the lots, utilities, and roads have been designed to avoid wetland fill or alteration to the greatest extent practicable. Approximately 7,553 square feet of wetland fill may result from this project (almost entirely from acess road construction). Approximately 13,230 square feet of wetland mitigation will offset the impacts of fill. Most remaining wetlands will be placed in common open space tracts, ensuring long-term natural resource protection.

	Total Area (acres)*
Rights-of-Way	3.53
Phase I Lots	3.10
Phase II Lots	1.20
Phase III Lots	3.58
Phase IV Lots	3.37
Open Space Tracts	4.12
Site Total	18.90
Adjacent Land Under the Same Ownership (not part of the Subdivision)	12.57

#### Table I. Development Summary

\* Areas are rounded to the nearest hundredth of an acre.

#### Site Description

The site is an irregularly-shaped parcel of 18.90 acres with dimensions of approximately 825 feet in a north-south direction and 1,355 feet in an east-west direction. Land generally slopes gradually upward in a west-to-east direction from an elevation of approximately ten feet to approximately 75 feet mean sea level (msl). Proposed lots and all developed area will be at an elevation of 13 feet msl or greater; at least one foot above the FEMA-established Flood Hazard elevation of 12 feet msl. A wetland that forms the east edge of Lake Lytle is located along the west and northwest site boundaries. A series of wetlands and a seasonal creek extend across the northern portion of the site, forming a buffer between the site and the existing Lake Lytle Estates development to the north. The site is forested with a mix of native conifers and deciduous trees typical of the Pacific Coast. Road and utility access to the site is from the north, through the existing Lake Lytle Estates development.



Figure I. Aerial Photo of the Site

#### Surrounding Area and Land Uses

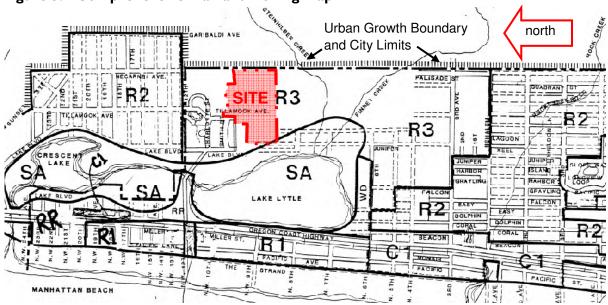
The site is located on the east side of Lake Lytle near the center of the City of Rockaway Beach. It is bounded by Lake Lytle on the west, the first three phases of Lake Lytle Estates, a single-family residential neighborhood, on the north, unimproved land outside of the city limits and Urban Growth Boundary on the east, and undeveloped land within the city on the south. Access at this time is only from the north, through the existing Lake Lytle Estates development, although streets will be extended south to allow future connections. Land to the west, between the site and Lake Lytle, is a delineated forested wetland, preventing future road access. West of Lake Lytle is Highway 101, the major Oregon Coast highway. The central commercial area for the City of Rockaway Beach is located adjacent to Highway 101 south of Lake Lytle.





#### Zoning

Zoning on the site and surrounding area is in conformance with the Comprehensive Plan. The developable portion of the site, approximately 17.40 acres, is zoned R-3, Lower Density Residential. This allows detached single-family dwellings, manufactured homes, duplexes, and multifamily homes as outright uses. Detached single-family dwellings are proposed. Minimum lot size in the R-3 Zone is 5,000 square feet, and overall maximum density of the subdivision cannot exceed nine dwelling units per acre. Wetlands on the site that are adjacent to Lake Lytle, approximately 1.45 acres, are zoned SA, Special Area Wetlands. This zone places significant restrictions on development, largely limiting it to structures and activities that relate directly to natural resource functions and values. Residential development is not allowed in the SA Zone.





In addition to the R-3 and SA base zones, the FHO, Flood Hazard Area Overlay Zone, applies to all land below 12 feet msl. The Wetland Notification Overlay Zone may also apply to wetlands located on the site, so is also discussed in this Burden of Proof.

#### **Required Reviews**

Because 85 detached single-family residential lots, open space tracts, and street dedications are proposed, Tentative Subdivision Plan review is required.

#### **II. ZONE REQUIREMENTS**

R-3 Lower Density Residential Zone

3.090. LOWER DENSITY RESIDENTIAL ZONE (R-3). In an R-3 zone the following regulations shall apply:

- (1) Uses Permitted Outright. In an R-3 zone, the following uses and their accessory uses are permitted outright:
  - (a) Single family dwellings, including modular housing and manufactured homes, duplexes and multifamily homes. Manufactured homes shall be subject to the standards of Section 4.091.
  - •••

Response: Detached single-family dwellings, allowed as an outright in the R-3 Zone, are proposed.

(2) Conditional Uses Permitted. In an R-3 zone the following conditional uses and their accessory uses are permitted subject to the provisions of Article 6:

**Response:** No conditional uses are proposed.

- (3) Standards. In an R-3 zone, the following standards shall apply:
  - (a) Minimum lot size in an R-3 zone shall be 5,000 square feet where sanitary sewer service is available, or will be made available, except as provided in (h) below; otherwise, minimum lot size shall be 7,000 square feet.
  - (b) Density limits for this area shall be 9 dwellings per acre, except as provided in (h) below.
  - (c)Minimum lot width is 50 feet, except that for lots between 3,500 and 4,999 square feet, the minimum lot width shall be 35 feet.
  - (d) Minimum lot depth is 70 feet, except for lots between 3,500 and 4,999 square feet, the minimum lot depth shall be 60 feet.

**Response:** Sanitary sewer service will be extended to the site. Table 2 below summarizes the applicable dimensional lot standards for each lot. Eighty-Five lots are proposed on the 18.90-acre site, for an overall gross density of 4.50 dwellings per acre and a net density (after subtracting streets and tracts) of 7.56 dwellings per acre, both of which are below the maximum density limit of nine dwellings per acre.

	Minimum Lot Dimension			
	Area (square feet)	Width (feet)	Depth (feet)	
Code Requirement	5,000	50	70	
Block and Lot Number				
Phase 1				
Block 12 Lot 1	5,447	55	100	
Block 12 Lot 2	5,531	55	100	
Block 12 Lot 3	5,531	55	100	
Block 12 Lot 4	5,466	53	102	
Block 12 Lot 5	5,587	50	120	
Block 12 Lot 6	6,325	50	140	
Block 12 Lot 7	10,439	68	160	
Block 12 Lot 8	6,598	50	130	
Block 12 Lot 9	9,383	75	125	
Block 12 Lot 10	7,072	70	110	
Block 12 Lot 11	7,380	80	90	
Block 12 Lot 12	6,324	60	105	
Block 12 Lot 13	8,177	60	95	
Block 12 Lot 14	6,269	50	130	
Block 12 Lot 15	6,121	70	75	
Block 12 Lot 16	5,019	52	93	
Block 12 Lot 17	5,479	58	93	
Block 12 Lot 18	5,434	58	93	
Block 12 Lot 19	5,839	50	116	
Block 12 Lot 20	5,815	50	116	
Block 12 Lot 21	5,790	50	115	
Phase 1 Total Lot	135,026		-	
Area				
Phase 2				
Block 13 Lot 1	5,015	65	75	
Block 13 Lot 2	5,443	50	107	
Block 13 Lot 3	6,476	50	122	
Block 13 Lot 4	7,164	50	137	
Block 13 Lot 5	6,757	50	111	
Block 13 Lot 6	6,398	70	75	
Block 13 Lot 7	15,151	96	129	
Phase 2 Total Lot	52,404			
Area				
Phase 3				
Block 15 Lot 1	5,163	56	95	
Block 15 Lot 2	5,144	56	92	
Block 15 Lot 3	5,151	60	87	
Block 15 Lot 4	5,039	61	83	
Block 15 Lot 5	5,018	62	81	

#### Table 2.Lot Standards

Minimum Lot Dimension		
Area (square feet)	Width (feet)	Depth (feet)
5,000	50	70
5,060	63	82
5,015	60	86
5,291	54	95
5,298	50	105
5,683	75	75
5,255	70	75
5,663	50	113
6,010	50	118
5,682	50	114
5,549	50	109
5,156	55	80
	62	78
	50	106
	50	101
		91
		80
	78	88
		96
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5.028	50	100
		100
		99
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		87
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· · · · · · · · · · · · · · · · · · ·		114
		128
		135
		75
		75
5,131	56	95
	Area (square feet)           5,000           5,015           5,291           5,298           5,683           5,255           5,663           6,010           5,682           5,549           5,156           5,094           5,727           5,076           6,126           5,638           6,989           5,731           5,073           5,074           5,075           5,076           5,077           5,077           5,076           5,077           5,075           5,076           5,077           5,076           5,077           5,077           5,079           156,012           5,028           5,434           5,274           5,000           5,000           5,000           5,000           5,000           5,020           5,738           6,455           6,840           5,172	Area (square feet)         Width (feet)           5,000         50           5,015         60           5,291         54           5,298         50           5,683         75           5,255         70           5,663         50           6,010         50           5,682         50           5,682         50           5,549         50           5,549         50           5,156         55           5,094         62           5,727         50           5,076         50           6,126         68           5,638         70           6,989         78           5,731         58           5,075         53           5,074         53           5,075         53           5,076         53           5,077         53           5,079         53           5,079         53           5,079         53           5,079         53           5,079         53           5,020         50           5,434

	Minimum Lot Dimension		
	Area (square feet)	Width (feet)	Depth (feet)
Code Requirement	5,000	50	70
Block and Lot Number		· · · · · · · · · · · · · · · · · · ·	
Block 19 Lot 2	5,075	56	91
Block 19 Lot 3	5,110	60	87
Block 19 Lot 4	5,128	61	83
Block 19 Lot 5	5,122	62	81
Block 19 Lot 6	5,173	63	82
Block 19 Lot 7	5,209	60	86
Block 19 Lot 8	5,147	54	95
Block 19 Lot 9	5,187	50	105
Block 19 Lot 10	5,076	68	75
Block 20 Lot 1	5,080	96	96
Block 20 Lot 2	5,081	96	96
Block 20 Lot 3	5,082	96	96
Block 20 Lot 4	5,083	96	96
Block 20 Lot 5	5,104	96	96
Phase 4 Total Lot	146,906		
Area			
Total Lot Area	490,348 sq ft (5,76	8 sq ft average)	

#### (e) Minimum front yard setback shall be 10 feet from the street right-of-way.

#### (f) Minimum setback on all other sides shall be 5 feet from the lot line.

**Response:** Setbacks of ten feet from the front lot line and five feet from either side and rear lot lines or delineated wetland boundaries (whichever is greater), are shown on the Tentative Site Plan, Appendix A. All dwellings will comply with these minimum setback requirements. These requirements will be met at the time of home construction.

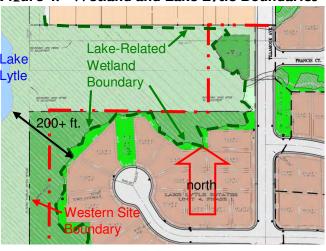
#### (g) Maximum building height shall be 24 feet, except where the Planning Commission determines a greater height to be appropriate.

**Response:** This requirement will be met at the time of home construction.

(h) Where a proposed use is to be a Planned Unit Development involving residential structures, the Planning Commission may authorize an additional two dwelling units per acre if the development is properly designed. Aesthetic, geologic and environmental factors shall be taken into account. The Planning Commission may require an engineering, geologic, or structural analysis where it appears that steep slopes or wetlands are to be used for construction purposes rather than open space. The Planning Commission may attach any reasonable conditions it sees fit in the course of the Planned Unit Development process. Response: Additional density, as allowed by this section, is not requested.

(i) The requirements of Section 4.041, Shorelands Development Criteria, shall be met where uses are to be located within 50 feet of a lake within the Rockaway Beach Urban Growth Boundary.

**Response:** The west site boundary is east of Lake Lytle, separated from the lake by a minimum of approximately 40 feet of delineated wetlands. In addition, all development will be set back at least 90 feet from the west site boundary, the area of which is largely wetlands, resulting in a minimum distance of at least 200 feet of wetlands and uplands separating the proposed development from Lake Lytle. The west portion of the site separating the developed area from Lake Lytle will be placed in a common open space tract and remain in its natural state. The requirements of Section 4.041 do not apply.



#### Figure 4. Wetland and Lake Lytle Boundaries

## (j) A minimum of 30% of the lot will be maintained in natural vegetation or landscaping.

**Response:** This requirement will be met at the time of home construction.

#### SA Special Area Wetlands Zone

3.080. SPECIAL AREA WETLANDS (SA). In an SA Zone the following regulations shall apply:

(1) Purpose. The purpose of the SA Zone is to conserve significant freshwater wetlands and the shoreland and aquatic environment of Rockaway Beach's lakes. Low intensity uses which do not result in major alterations are appropriate in the zone. High intensity recreation, related to boating is appropriate on the lakes.

**Response:** With the exception of 7,553 square feet of wetlands mostly located in existing and proposed rights-of-way, and driveway access for two lots, no wetland fill is proposed. These wetlands are associated with an unnamed seasonal creek that flows into Lake Lytle, and are not associated with the lake and lake boundaries protected under Section 3.080. Other remaining wetlands on the site, including those associated with Lake Lytle, will remain in their natural

undeveloped state to the greatest extent practicable. In addition, mitigation for the wetland fill previously described will occur onsite or immediately adjacent to it.

#### (2) Uses Permitted Outright. In an SA zone, the following uses are permitted outright:

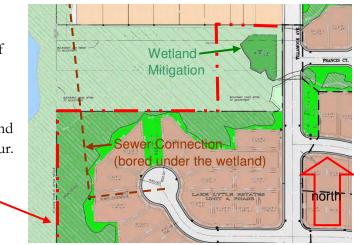
- (a) Low intensity recreation;
- (b) Passive restoration measures;
- (c) Vegetative shoreline stabilization;
- (d) Individual dock limited to a maximum of 200 square feet for recreation or fishing use, plus necessary piling;
- (e) Submerged cable, sewer line, water line or other pipeline.
- (f) Storm water outfall.

**Response:** A sewer extension under the wetland is proposed, extending from the western boundary of the development north approximately 550 feet to the existing sewer in Lake Boulevard. To eliminate wetland impacts, the sewer will be constructed using boring techniques instead of excavation.

In addition to the sewer extension, there will be a wetland mitigation site adjacent to the existing wetlands and west of Tillamook Avenue, expanding the wetland boundary of the lake. In the future, passive restoration measures and vegetative shoreline stabilization may occur on a limited basis. Any future activities will comply with the land use regulations in place at the time they occur.

> Western Site Boundary





- (3) Conditional Uses Permitted. In an SA zone the following conditional uses are permitted subject to the provisions of Article 6.
  - (a) Active restorations including dredging;
  - (b) Boat launch ramps, including necessary dredging and filling;

- (c) Structural shoreline stabilization;
- (d) Public parks and recreation areas with associated low intensity development such as docks, raised walkways, and footpaths.

**Response:** No conditional uses are proposed.

- (4) Standards. In an SA zone, the following standards shall apply:
  - (a) All activities involving construction or alteration in wetlands or aquatic areas shall be reviewed by the Oregon Division of State Lands and the US Army Corps of Engineers to determine permit applicability.

**Response:** Wetland boundaries were delineated by Nancy Rorick of Rorick Environmental Services July 2006 and submitted to the Oregon Department of State Lands (DSL) for review and concurrence. Delineated wetland boundaries have been surveyed and are shown on the Tentative Site Plan, Appendix A. With the exception of 7,553 square feet of wetlands in proposed rights-ofway and driveway access, no wetland fill is proposed. Application has been made to DSL and the US Army Corps of Engineers for wetland alteration as described. Remaining wetlands on the site will remain in their natural undeveloped state to the greatest extent practicable.

#### (b) The Shorelands Siting Criteria in Section 4.041 shall be applicable to all activities in the SA zone. Nothing in the Shorelands Siting Criteria shall be interpreted to permit uses which are not otherwise allowed in (2) or (3) above.

**Response:** Shorelands Siting Criteria of Section 4.041 are stated below. Each is followed by a brief discussion of how they are met.

Section 4.041. Shoreland Development Criteria. The Planning Commission shall review all development within 50 feet of the shore of any lake in the Rockaway Beach Urban Growth Boundary to ensure that the development:

(1) Maintains existing riparian vegetation in accordance with Section 4.150.

The only lake near the site is Lake Lytle. It is separated from the subdivision boundary by at least approximately 40 feet of identified wetlands, and all above-ground development is at least an additional 50 feet from the west site boundary (Figure 4). No development will occur within 50 feet of the Lake Lytle shoreline. Existing riparian vegetation along Lake Lytle and within the bordering wetland will be retained. A sewer under the wetland is proposed, extending from the western development north approximately 550 feet to the existing sewer in Lake Boulevard (Figure 5). To eliminate impacts, the sewer will be constructed using boring techniques instead of excavation. Lands subject to Section 4.041 will not be affected by the proposed development.

(2) Maintains the scenic quality of existing undeveloped shoreline area such as along the east side of Lake Lytle; or improves the appearance of developed shoreline areas such as those adjacent to Clear Lake or Seaview Lake. As noted above, development will be at least 200 feet from the edge of Lake Lytle (Figure 4). This area will remain in native vegetation, providing visual screening of development from the lake.

#### (3) Does not require the fill of any wetland or aquatic areas, except for waterdependent uses.

There will be no fill of wetlands within 50 feet of Lake Lytle. Lands subject to Section 4.041 will not be affected by the proposed development.

#### (4) Existing public access to the shoreline shall be maintained in accordance with Section 4.140. New commercial development shall make provision for public access to the shoreline.

There is no public access to Lake Lytle across the site.

(c) Every effort shall be made to use common or community docking facilities prior to construction of an individual, single-purpose dock. Generally, there should be a maximum of one dock every 250 feet. Docks shall not include covered structures or boathouses.

**Response:** No docks are proposed.

(d) Access to the water area through wetlands may be constructed in the form of raised walkways on pilings, posts or piers. Where the affected resource agencies (e.g. Oregon Department of Fish & Wildlife) determine the activity to have minimal environmental impacts, trails or paths consisting of clean gravel, bark chips, or other material may be placed through wetlands. Such walkways shall not be wider than eight (8) feet. Wherever possible, trails or walkways shall be constructed for the common usage of a development or group of structures.

**Response:** No development described in this subsection, including walkways on pilings, is proposed.

## (e) Removal or control of aquatic vegetation may be permitted, where allowed by the Oregon Department of Fish and Wildlife, in order to provide angler access, or other valid purpose.

**Response:** Aside from vegetation removal resulting from fill of wetlands that are not associated with Lake Lytle (see subsection 3.080(1)), there will be no impacts to vegetation.

- (f) Dredging shall be allowed only:
  - (i) If a need (i.e., a substantial public benefit) is demonstrated, and
  - (ii) If the use or alteration does not unreasonably interfere with public trust rights, and

- (iii) If no feasible alternative upland locations exist, and
- (iv) If adverse impacts are minimized.
- (g) When dredging is permitted, the dredging shall be the minimum necessary to accomplish the proposed use.
- (h) The timing of dredging operations shall be coordinated with state and federal resource agencies, to protect aquatic and shoreland resources, and minimize interference with recreational fishing.

**Response:** No dredging is proposed.

- (i) Piling installation may be allowed only if all of the following criteria are met:
  - (i) A substantial public benefit is demonstrated, and
  - (ii) The proposed use does not unreasonably interfere with public trust rights, and
  - (iii) Feasible alternative upland locations do not exist, and
  - (iv) Potential adverse impacts are minimized.

Response: No pilings are proposed.

(j) Shoreline stabilization measures shall meet the criteria of Section 4.120.

Response: No shoreline stabilization is proposed.

- (k) Fill may be permitted only if all of the following criteria are met:
  - (i) If required for a water-dependent use requiring an aquatic location, or if specifically allowed in the SA zone, and
  - (ii) A substantial public benefit is demonstrated, and
  - (iii) The proposed fill does not unreasonably interfere with public trust rights, and
  - (iv) Feasible upland alternative locations do not exist, and
  - (v) Adverse impacts are minimized.

**Response:** With the exception of 7,553 square feet of wetlands located in existing and proposed rights-of-way, and driveway access, no wetland fill is proposed. Wetlands proposed for fill are associated with an unnamed seasonal creek that flows into Lake Lytle, and are not associated with the lake and lake boundaries protected under Section 3.080 (Figure 6). Other wetlands on the site, including those associated with Lake Lytle, will continue in their natural undeveloped state to the greatest extent practicable. In addition, mitigation for the wetland fill previously described will occur onsite or immediately adjacent to it.

(1) A fill shall cover no more area than the minimum necessary to accomplish the proposed use.

- (m) Projects involving fill may be approved only if the following alternatives are examined and found to be infeasible.
  - (i) Construct some or all of the project on piling.
  - (ii) Conduct some or all of the proposed activity on existing upland areas;
  - (iii) Approve the project at a feasible alternative site where adverse impacts are less significant.

**Response:** Proposed wetland fill is to allow a street network and motor vehicle access to extend into and through the site in accordance with the subdivision requirements. No fill will occur in wetlands associated with Lake Lytle and subject to the requirements of this section.

(5) Zone Boundary Determination. At such time that a development is proposed in the vicinity of an area designated Special Area Wetlands, the City may require a site investigation to determine the exact location of the zone boundary. The site investigation shall be performed by a qualified agent such as a biologist from the U.S. Army Corps of Engineers or the Division of State Lands.

**Response:** Wetland boundaries were delineated by Nancy Rorick of Rorick Environmental Services in July 2006 and submitted to the Oregon Department of State Lands (DSL) for review and concurrence. Delineated wetland boundaries have been surveyed and are shown on the Tentative Site Plan, Appendix A. With the exception of 7,553 square feet of wetlands in proposed rights-ofway and driveway access, no wetland fill is proposed. Application has been made to DSL and the US Army Corps of Engineers for wetland alteration as described. Remaining wetlands on the site will remain in their natural undeveloped state to the greatest extent practicable. Buildable areas identified on all lots (Appendix A) are at least five feet from delineated wetland boundaries.

#### Flood Hazard Zone

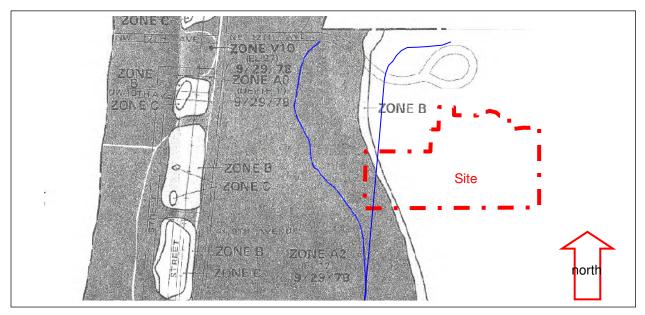
3.092. FLOOD HAZARD OVERLAY ZONE - FHO ZONE. Purpose and objectives: It is the purpose of this Flood Hazard Overlay Zone to regulate the use of those areas subject to periodic flooding, to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions. In advancing these principles and the general purposes of the Rockaway Beach Comprehensive Plan and Zoning Ordinance, the specific objectives of this zone are:

- (1) To combine with the present zoning requirements certain restrictions made necessary for the known flood hazard areas to promote the general health, welfare and safety of the City.
- (2) To prevent the establishment of certain structures and land uses in areas unsuitable for human habitation because of the danger of flooding, unsanitary conditions, or other hazards.

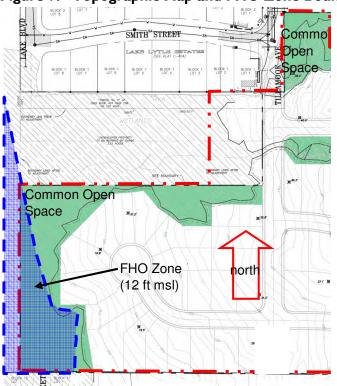
- (3) To minimize the need for rescue and relief efforts associated with flooding.
- (4) To help maintain a stable tax base by providing for sound use and development in flood-prone areas and to minimize prolonged business interruptions.
- (5) To minimize damage to public facilities and utilities located in flood hazard areas.
- (6) To ensure that potential home and business buyers are notified that property is in a flood area.
- (7) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
- 3.094. GENERAL PROVISIONS.
- (1) Lands To Which This Ordinance Applies. This ordinance shall apply to all areas of special flood hazards (Flood Hazard Overlay Zone) in combination with present zoning requirements within the jurisdiction of the City of Rockaway Beach.
- (2) Basis For Establishing The Areas Of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration through a scientific and engineering report entitled 'The Flood Insurance Study for the City of Rockaway Reach', dated January 1977, with accompanying Flood Insurance Rate Maps and Flood Boundary Maps and any revision thereto is hereby adopted by reference and declared to be a part of this Ordinance. The Flood Insurance Study is on file at Rockaway Beach City Hall.
- (3) Compliance. No structure or land shall hereafter be located, extended, converted or altered without full compliance with the terms of this ordinance and other applicable regulations.
- (4) Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. The ordinance shall not create liability on the part of the City of Rockaway Beach, or any officer or employee thereof, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

**Response:** Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), all but the southwest corner of the site is outside of the A2 Flood Hazard Zone. Elevation of a one percent (100-year) Base Flood event is 12 feet mean sea level (msl) (Figure 6 below).

Figure 6. Flood Insurance Rate Map



The FIRM is a generalized map at a large scale depicting approximate areas of inundation. A more detailed and accurate topographic survey has been prepared by the applicant, illustrating specific areas of the portion of the PUD site proposed for development that are at or below an elevation of 12 feet msl (Appendix A and Figure 7 below). All land below elevation 12 feet msl will be placed in a common open space tract and preserved in its natural state.



#### Figure 7. Topographic Map and FHO Zone Boundary

#### 3.095. ADMINISTRATION.

- (1) Establishment of Building/Development Permit. A Building/Development Permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.094(2). The permit shall be for all structures including manufactured homes, as set forth in the 'definitions' and for all developments including fill and other activities, also as set forth in the 'definitions'. Application for a Building/Development Permit shall be made to the City Recorder on forms furnished by him, and shall specifically include the following information:
  - (a) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures.
  - (b) Elevation in relation to mean sea level to which any structure has been floodproofed.
  - (c) Certification by a registered professional engineer or architect that the floodproofing method for any non-residential structure meets the floodproofing criteria in Section 3.096(6)(b).
  - (d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

Response: No buildings will be constructed in the FHO Zone. These requirements do not apply.

- (2) Duties and Responsibilities. The duties of the City Recorder shall include, but not be limited to permit review:
  - (a) Review of all development permits to determine that the permit requirements of this ordinance have been satisfied.
  - (b) Review all development permits to require that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.
  - (c) Review all development permits in the area of special flood hazard to determine if the proposed development adversely affects the flood carrying capacity of the area.
- (3) Uses of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 3.094.(2), Basis for Establishing the Areas of Special Flood Hazard, the City Recorder shall obtain, review and reasonably utilize any base flood elevation data available from a federal, state or other source, in order to administer Section 3.096(6)(a), Specific Standards, Residential Construction, and Section 3.096(6)(b), Specific Standards, Non-residential Construction.

**Response:** These sections will be implemented by the City.

- (4) Information to be Obtained and Maintained. Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 3.095(3) obtain:`
  - (a) Verify and record actual elevation (in relation to Mean Sea Level) of the lowest floor (including basement) of all new or substantially improved structures and whether or not the structure contains a basement.
  - (b) For all new or substantially improved floodproofed structures:
    - (i) verify and record the actual elevation (in relation to Mean Sea Level), and (ii) maintain the floodproofing certifications required in Section 3.095(i)(c).
  - (c) Maintain for public inspection all records pertaining to the provisions of this ordinance.
  - (d) In coastal high hazard areas, certification shall be obtained from a registered professional engineer or architect that the structure is securely anchored to adequately anchored pilings or columns in order to withstand velocity waters.

Response: No buildings will be constructed in the FHO Zone. These requirements do not apply.

- (5) Alterations of Watercourses. The City Recorder shall:
  - (a) Notify adjacent communities and the Oregon Water Resources Department prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
  - (b) Require that maintenance is provided within the altered or relocated portion of said watercourse, so that the flood carrying capacity is not diminished.

**Response:** No water courses in the FHO Zone will be altered. These requirements do not apply.

(6) Interpretation of FIRM Boundaries. The City Recorder shall make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretations as provided in Section 3.095(7).

**Response:** The FIRM boundary is based on elevation of the Base Flood. The Base Flood elevation at the site is 12 feet msl. A topographic map was prepared and the 12-foot msl elevation identified (Appendix A and Figure 7 above).

#### (7) Appeals and Variance Procedures.

Response: No appeal of the FIRM boundary (the 12-foot msl elevation) is requested.

3.096. PROVISIONS FOR FLOOD HAZARD REDUCTION. General Standards. In the Flood Hazard Overlay Zone (FHO Zone) the following provisions are required:

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

- (a) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (b) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (c) Electrical, heating, ventilation, plumbing, and air-conditioning equipment, and other service facilities shall be elevated to one foot above flood level so as to prevent water from entering or accumulating within the components during conditions of flooding.

Response: No buildings will be constructed in the FHO Zone. These requirements do not apply.

- (3) Utilities.
  - (a) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
  - (b) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters; and
  - (c) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

**Response:** A sewer extension under the wetland is proposed, extending from the western boundary of the development north approximately 550 feet to the existing sewer in Lake Boulevard. The sewer will be designed and constructed to City standards, minimizing infiltration of flood waters into the systems and minimize discharge into flood waters. This requirement will be met at the time of sewer extension into and through the site.

#### (4) Subdivision Proposals.

## (a) All subdivision proposals shall be consistent with the need to minimize flood damage.

**Response:** Flood damage will be minimized by doing no grading or development in the FHO Zone except for sewer extension as described in Subsection 3.096(3) above, and by placing all land in the FHO Zone in a common open space tract.

(b) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

**Response:** A sewer extension under the wetland is proposed, extending from the western boundary of the development north approximately 550 feet to the existing sewer in Lake Boulevard. The sewer will be designed and constructed to current city standards, minimizing infiltration of flood waters into the systems and minimize discharge into flood waters. This requirement will be met at the time of sewer extension into and through the site.

## (c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

**Response:** Grading is limited to rights-of-way at this time. Stormwater from roadways will be collected by a system of catch basins and directed through a piped system to stormwater swales, where water will be treated prior to discharge to adjacent wetlands. Stormwater on each lot will disposed of onsite through infiltration in stormwater swales.

(d) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

**Response:** A Base Flood elevation of 12 feet msl has been established through the FIRM. This criterion does not apply.

(5) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another administrative source (Section 3.095(3)), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

**Response:** A Base Flood elevation of 12 feet msl has been established through the FIRM. This criterion does not apply.

- (6) Specific Standards. In all areas of special flood hazards (FHO Zone) where baseflood elevation data has been provided as set forth in Section 3.094(2), Basis For Establishing The Areas of Special Flood Hazard, or Section 3.095(3), Use of Other Base Flood Data, the following provisions are required:
  - (a) Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above the base flood elevation. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for

the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect and must meet or exceed the following minimum criteria:

- (i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
- (ii) The bottom of all openings shall be no higher than one foot above grade.
- (iii) Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

Response: No buildings will be constructed in the FHO Zone. These requirements do not apply.

## (b) Nonresidential Construction.

Response: No buildings will be constructed in the FHO Zone. These requirements do not apply.

## (c) Manufactured Homes.

**Response:** No manufactured homes will be placed in the FHO Zone. These requirements do not apply.

(7) Coastal High Hazard Area. Coastal high hazard areas (V Zones) are located within the areas of special flood hazard established in Section 3.094. These areas have special flood hazards associated with high velocity waters from tidal surges and, therefore, in addition to meeting all provisions in this ordinance, the following provisions shall also apply:

Response: The site is not within a Costal Hazard Area (V Zone).

- (8) Areas of Shallow Flooding (AO Zone). Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable usually characterized as sheet flow. In these areas, the following provisions apply:
  - (a) New construction and substantial improvements of residential structures within AO Zones shall have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM (at least two feet if no depth number is specified).
  - (b) New construction and substantial improvement of nonresidential structures shall, either:

- (i) have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM (at least two feet if no depth number is specified); or
- (ii) together with attendant utility and sanitary facilities, be completely floodproofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect.
- (c) Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

**Response:** All portions of the site at or below an elevation of 12 feet msl are in the A2 Zone. No buildings will be constructed in the A2 Zone.

## 3.097. RESTRICTIONS AND PROHIBITED USES.

(1) Restrictions. Restrictions regarding height, rear yards, side yards, front yard setbacks, minimum lot area, signs, vision clearance and parking space shall be the same as set forth in each specific zone located within the Flood Hazard Overlay Zone area.

**Response:** As discussed throughout this Burden of Proof, other zoning restrictions will be met. To the extent that those various requirements are met, this criterion is also met.

(2) Prohibited Uses. It shall be unlawful to erect, alter, maintain or establish in a flood hazard overlay zone any building, use or occupancy not permitted or allowed in the foregoing provisions, except existing nonconforming uses, which may continue as provided in Article 7.

**Response:** This requirement will be enforced by the City.

Notification for Wetland Alteration

## 3.130. WETLAND NOTIFICATION OVERLAY ZONE.

Purpose. It is the purpose of the Wetland Notification Overlay Zone to establish a procedure that ensures that the permitting requirements of the Division of State Lands and the US Army Corps of Engineers are met in those wetland areas of the City which have not been designated Special Area Wetland.

3.131. Zone Boundaries. The boundaries of the Wetland Notification Overlay Zone shall conform to areas so designated in the Comprehensive Plan map titled 'Wetland Areas of Rockaway Beach.'

**Response:** There is no Comprehensive Plan map entitled *Wetland Areas of Rockaway Beach*. However, there are wetlands on the site that have been delineated and mapped, and the information has been submitted to the Department of State Lands (DSL) for review and concurrence. Responses under Section 3.132 below are explain how the proposed subdivision meets the requirements of the Wetland Notification Overlay Zone, should they apply.

## 3.132. GENERAL PROVISIONS.

(1) No person shall do any site preparation work in conjunction with a use permitted in the underlying zoning district in which the property is located, without first notifying the City of the proposed action. Site preparation work is defined as any grading, filling, drainage, excavation or tree removal on the subject property.

**Response:** No site preparation work as regulated by this criterion has been done. Notification to the City for proposed wetland fill is through this subdivision proposal, and through notification by DSL.

- (2) The required notification shall take the form of a description of the location of the property and a sketch describing the site preparation work to be undertaken.
- (3) Upon receipt of the notification, the City shall meet with the applicant and inform him/her that the subject property and proposed site preparation activities may be subject to the jurisdiction of the Division of State Lands and the US Army Corps of Engineers.
- (4) The applicant shall contact the Division of State Lands and the US Army Corps of Engineers and seek a determination of whether the subject property and proposed site preparation activities are subject to their jurisdiction.
- (5) If the US Army Corps of Engineers and/or the Division of State Lands determines that it has jurisdiction, the applicant shall receive a permit from these agencies before site preparation work may begin.

(6) If the Division of State Lands and/or the US Army Corps of Engineers determines that it does not have jurisdiction, the applicant may begin site preparation work upon presenting the City with a written confirmation of such a determination, and subject to applicable City requirements.

**Response:** Wetlands have been delineated and mapped, and the information has been submitted to the DSL for review and concurrence. Application to DSL and the US Army Corps of Engineers (USACE) has been made for wetlands identified for alteration on the Site Plan (Appendix A). A permit will be obtained from the USACE and/or DSL before site preparation work will begin, in conformance with these criteria.

## Shoreland Development

4.041 SHORELAND DEVELOPMENT CRITERIA. The Planning Commission shall review all development within 50 feet of the shore of any lake in the Rockaway Beach Urban Growth Boundary to ensure that the development:

(1) Maintains existing riparian vegetation in accordance with Section 4.150.

**Response:** All development will be a minimum of approximately 200 feet from the edge of Lake Lytle, separated by a wetland. There will be no development within the area protected under Section 4.041.

# (2) Maintains the scenic quality of existing undeveloped shoreline area such as along the east side of Lake Lytle; or improves the appearance of developed shoreline areas such as those adjacent to Clear Lake or Seaview Lake.

**Response:** All development will be a minimum of approximately 200 feet from the edge of Lake Lytle, separated by a wetland. There will be no vegetation removal or alteration of the area protected under Section 4.041.

## (3) Does not require the fill of any wetland or aquatic areas, except for waterdependent uses.

**Response:** All development will be a minimum of approximately 200 feet from the edge of Lake Lytle, separated by a wetland. There will be no fill of wetland or aquatic areas associated with Lake Lytle.

(4) Existing public access to the shoreline shall be maintained in accordance with Section 4.140. New commercial development shall make provision for public access to the shoreline.

**Response:** There is no existing public access to Lake Lytle across the site.

## Riparian Vegetation

4.150. RIPARIAN VEGETATION. Riparian vegetation adjacent to the lakes and streams in Rockaway Beach shall be protected in accordance with the following provisions:

- (1) The following areas of riparian vegetation are defined:
  - (a) Fifteen feet on either side of McMillan, Steinhilber, Finney, Rock, Heitmiller, Saltair, and Spring Creeks and any other known stream bed.
  - (b) Fifteen feet adjacent to Seaview Lake, Marie Lake and the unnamed lake at Minnihaha Avenue.
  - (c) Twenty-five feet adjacent to Spring Lake and Lake Lytle where there are no adjacent wetlands.
  - (d) The extent of wetland vegetation adjacent to Crescent Lake, Lake Lytle, Clear Lake and that portion of Spring Lake that is bordered by wetlands.

**Response:** The site is east of Lake Lytle, with portions along the west site boundary containing delineated wetlands associated with Lake Lytle. These wetlands will remain in their natural state, and the portion of them that is within the site boundary will be placed in an open space tract.

- (2) All structures and uses shall be located outside of areas listed in (1) above with the following exceptions:
  - (a) Where direct water access is required in conjunction with a water-dependent use; or
  - (b) Access to a lot where the proposed access is only reasonable alternative; or
  - (c) Structural shoreline stabilization; or
  - (d) Trails or other pedestrian walkways that provide access to the water.

**Response:** No development, including structures, will be located within the delineated wetland area associated with the Lake Lytle riparian area.

- (3) For areas described in (1) a), b), and c) above, all trees 6 inches in diameter at four and one-half feet above grade, and 50% of the understory vegetation shall be retained within the areas listed with the following exceptions:
  - (a) Removal of dead, diseased, or dying trees, or trees that pose an erosion hazard.

- (b) Removal of vegetation necessary to provide for uses listed in (2), above.
- (c) Vegetation removal in conjunction with an approved in-water project.
- (d) The removal of noxious weeds as defined by the City's nuisance ordinance.

**Response:** No trees identified in this subsection will be removed as part of this development.

- (4) For all areas described in (1) d) above, all riparian vegetation shall be retained with the following exceptions:
  - (a) Removal of vegetation necessary to provide for uses listed in (2) above.
  - (b) Removal of dead, diseased, or dying trees.
  - (c) Vegetation removed in conjunction with an approved in-water project.
- (5) The City may approve the removal of riparian vegetation not vegetation removal has been reviewed and approved by the Oregon department of Fish and Wildlife.

**Response:** No riparian vegetation identified in this subsection will be removed as part of this development.

## **III. SUBDIVISION REQUIREMENTS**

## **General Provisions**

## 5. PROCEDURE FOR REVIEW.

**Response:** The required information has been submitted to the City of Rockaway Beach with this Burden of Proof. Procedural requirements will be followed in accordance with this section.

6. TENTATIVE PLAN SCALE. Tentative plans shall be to a scale of one inch equals 50 feet or better except tracts over 10 acres which may be to a scale of one inch equals 100 feet, and shall be clearly and legibly produced.

Response: Tentative Plans of the proper scale are submitted as part of this application.

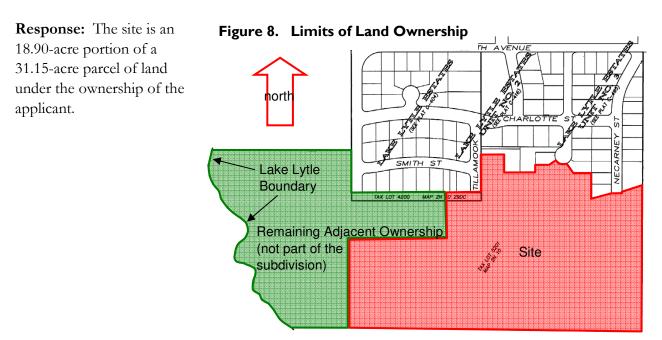
## 7. INFORMATION ON TENTATIVE PLAN.

- (1) Proposed name, date, north point and scale of drawing.
- (2) Location of the subdivision sufficient to define its location and boundaries and a legal description of the tract boundaries.
- (3) Name and address of the subdivider.
- (4) Appropriate identification of the drawing as a tentative plan.
- (5) Name, business address, and number of the registered engineer or licensed surveyor who prepared the plan of the proposed subdivision.
- (6) The locations, names, widths, approximate radii of curves and grades of all existing and proposed streets and easements in the proposed subdivision and along the boundaries thereof, and the names of adjoining platted subdivisions and portions of the subdivisions as shall be necessary to show the alignment of streets and alleys therein with the streets and alleys in the proposed subdivision.
- (7) Names of the record owners of all contiguous land.
- (8) The approximate location and character of all existing and proposed easements and public utility facilities except water and sewer lines in the subdivision or adjacent thereto.
- (9) The location and approximate dimensions of each lot and each to be numbered.
- (10) Setback lines, if any, proposed by the subdivider.
- (11) The outline of any existing buildings and their use showing those which will remain.

- (12) Contour lines where the data is made available by the city.
- (13) 'The location of at least one temporary bench mark within the subdivision boundaries.
- (14) City limit or Urban Growth Boundary lines crossing or bounding the subdivision.
- (15) Approximate location of all areas subject to inundation or storm water overflow and the location, width, high water elevation flood flow and direction of flow of all watercourses.
- (16) Any area proposed to be cut or filled or otherwise graded or protected from flooding.
- (17) If impractical to show on the preliminary plat, a key map showing the location of the tract in relationship to section and township lines and to adjacent property and major physical features such as streets, railroads and watercourses.
- (18) Streets to be held for private use shall be so indicated and all reservations or restrictions relating to such private streets shall be fully described.

**Response:** All of the required information is included on the tentative subdivision plans (Appendix A) and in this Burden of Proof.

8. PARTIAL DEVELOPMENT. If the subdivision proposal pertains to only part of the tract owned or controlled by a subdivider, the Planning Commission may require a sketch of a tentative layout for streets in the unsubdivided portion.



9. INFORMATION IN STATEMENT. The statement to accompany the tentative plan shall contain the following information:

# (1) A general explanation of the improvements and public utilities, including water supply and sewage disposal proposed to be installed.

**Response:** Public water and sewer lines will be installed within the public rights-of-way. A sewer line will also be extended from the west site boundary north to the existing sewer in Lake Boulevard by boring under the wetland boundary of Lake Lytle (Figure 5). All preliminary utility locations are shown on the Tentative Site Plan, Appendix A.

## (2) Deviations from subdivision ordinance, if any.

Response: No Deviation from the subdivision ordinaces.

## (3) Public areas proposed, if any.

Response: No public areas beyond the public rights-of-way are proposed.

## (4) A preliminary draft of restrictive covenants proposed, if any.

**Response:** A preliminary draft of the restrictive covenants for the residential lots is contained in Appendix C. A homeowners association will be formed for the purpose of maintaining the common open space tracts.

- 10. SUPPLEMENTAL PROPOSALS WITH TENTATIVE PLAN. Any of the following may be required to the Planning Commission to supplement the plan of a subdivision.
  - (1) Approximate center line profiles with extensions for a reasonable distance beyond the limits of the proposed subdivision showing the finished grade of streets and the nature and extent of street construction.

**Response:** All proposed street construction is shown on the Tentative Site Plan (Appendix A).

## (2) A plan for domestic water supply lines and related water service facilities.

**Response:** Water lines are shown on the Tentative Site Plan, Appendix A.

(3) Proposals for sewage disposal, storm water drainage and flood control, including profiles of proposed drainageways.

**Response:** Sewer lines are shown on the Tentative Site Plan, Appendix A. Stormwater runoff from streets will be collected through a series of catch basins and directed through a pipe system to a series of stormwater swales for treatment prior to discharge to adjacent wetlands. Stormwater on individual lots will be collected in shallow swales, for infiltration into the ground. Precise swale size and location for the individual lots will be determined at the time of building permit application. Developed areas of the site are above the FEMA 100-year flood elevation, so no additional flood control measures are necessary.

# (4) If lot areas are to be graded, a plan showing the nature of the cuts and fills and information on the character of the soil.

**Response:** The Tentative Grading Plan is illustrated in Appendix A and in Figure 9 below. All grading will be for street construction. Any grading for individual lots will be made at the time home plans are submitted.

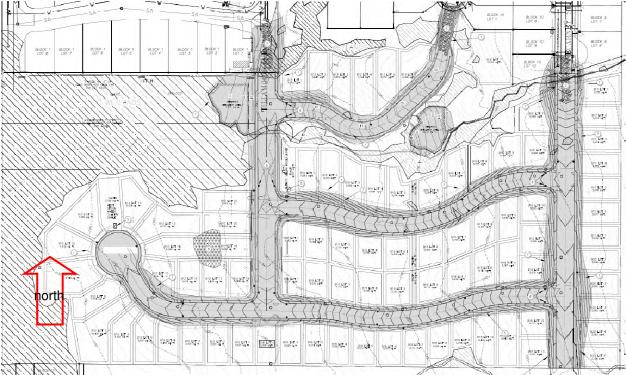
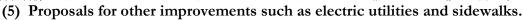


Figure 9. Site Grading



**Response:** Five-foot-wide sidewalks will be constructed along both sides of all streets, abutting curbs as shown in Appendix A. In order to protect sidewalks from home-building construction equipment and activities, they will not be constructed when streets are improved, but instead at the time the home on which the sidewalk fronts are constructed. Electric utilities will be located within an eight-foot-wide public utility easement or along lot frontages as required by the franchise utility companies.

# (6) Site investigations as required by the Hazards Overlay Zone provisions of the Zoning Ordinance. Where such an investigation indicates the potential for erosion, an erosion control plan shall also be submitted.

**Response:** Portions of the site that are under an elevation of 12 feet msl will be placed in a common open space tract and not developed. The seasonal creek that drains into Lake Lytle will be placed in a common open space tract. No areas proposed for development are in a designated Hazards Overlay Zone.

Erosion control plans illustrated on the Tentative Site Plan (Appendix A) will be submitted with all subdivision improvement construction plans, and will assure that sediment will not enter wetlands or public roadways in a manner that will violate City or Oregon Department of Environmental Quality requirements.

# (7) If an area is to be graded, a plan showing the nature of the cuts and fills and evidence provided in a site investigation that such a grading will be stable.

**Response:** The Tentative Grading Plan is illustrated in Figure 9 and Appendix A. All grading will be for street construction. Grading for individual lots will be made at the time home plans are submitted.

32. PRINCIPLES OF ACCEPTABILITY. A land division, whether by a subdivision, creation of a street, or a partitioning, shall conform to any development plans, shall take into consideration any preliminary plans made in anticipation thereof, and shall conform to the design standards established by this ordinance. The City Engineer shall prepare and submit to the City Council specifications to supplement the standards of this ordinance, based on standard engineering practices, concerning streets, drainage facilities, sidewalks, sewer and water systems.

**Response:** All requirements of the City and conditions of tentative plan approval will be met during development.

## 33. STREETS.

- (1) The location, width and grade of streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain. Where location is not shown in a development plan, the arrangement of streets shall either:
  - a. Provide for the continuation or appropriate projection of existing principal streets in surrounding areas; or

b. Conform to a plan for the neighborhood approved or adopted by the Planning Commission to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical.

**Response:** Tillamook Avenue and Necarney Street are direct extensions of existing streets of the same name within earlier phases of Lake Lytle Estates, and Necarney Street will continue through the site to the south site boundary to serve future abutting development to the south. It extends the established street grid in a north-south direction. Tillamook Avenue will not extend to the abutting development to the south because of sever opposition from DSL. Troy and Florence Streets connect Tillamook Avenue and Necarney Street in an east-west direction to provide a grid street pattern. Florence Street also extends west of Tillamook Avenue approximately 385 feet to form a cul-de-sac near wetlands associated with Lake Lytle. Francis Court extends east from Tillamook Avenue near the north site boundary and connects to existing Francis Street. Troy and Florence Streets to the site boundaries because Lake Lytle and associated wetlands abut the site to the east.

(2) Street Widths. Street widths shall conform with City standards, except where it can be shown by the land divider, to the satisfaction of the Planning Commission, that the topography or the small number of lots or parcels served and the probable future traffic development are such as to unquestionably justify a narrower width. Increased widths may be required where streets are to serve commercial property, or where probable traffic conditions warrant. Approval or determination of street and area classification shall be made by the Planning Commission taking into consideration the zoning designations imposed by the Comprehensive Plan and the Development Code, the present use and development of the property in the area, the logical and reasonable prospective development of the area based upon public needs and trends, and the public safety and welfare.

**Response:** Tillamook Avenue and Necarney Street are 38-foot-wide streets within 50-foot-wide rights-of-way, and Necarney Street will be a future through streets to serve land to the south when it is developed in the future. Other streets are 32 feet wide with Francis Court reducing to 20-foot-wide to reduce wetlands fill, all have 40-foot-wide rights-of-way, designed to serve abutting lots.

(3) Alignment. As far as is practical, streets other than minor streets shall be in alignment with existing streets by continuations of the center lines thereof. Staggered street alignment resulting in 'T' intersections shall, wherever practical, leave a minimum distance of 200 feet between the center lines of streets having approximately the same direction, and in no case, shall be less than 150 feet.

**Response:** Tillamook Avenue and Necarney Street are direct extensions of existing streets of the same name within earlier phases of Lake Lytle Estates, and Necarney Street will continue through the site to the south site boundary to serve future abutting development to the south. It extends the

established street grid in a north-south direction. Tillamook Avenue will not extend to the abutting development to the south because of sever opposition from DSL. Troy and Florence Streets connect Tillamook Avenue and Necarney Street in an east-west direction to provide a grid street pattern. Florence Street also extends west of Tillamook Avenue approximately 385 feet to form a cul-de-sac near wetlands associated with Lake Lytle. Francis Court extends east from Tillamook Avenue near the north site boundary and connects to existing Francis Street. Street intersections are separated by at least 200 feet.

(4) Future Street Extension. Where necessary to give access to, or permit a satisfactory future division of adjoining land, streets shall extend to the boundary of the subdivision or partition, and the resulting dead-end streets may be approved without a turnaround. Reserve strips including street plugs may be required to preserve the objectives of street extensions.

**Response:** Tillamook Avenue, Francis Street, and Necarney Street are direct extensions of existing streets of the same name within earlier phases of Lake Lytle Estates, and Necarney Street will continue through the site to the south site boundary to serve future abutting development to the south. Lake Lytle and associated wetlands to the west, and the Rockaway City Limits and Urban Growth Boundary to the east, prevent street future extensions in those directions.

(5) Intersection Angles. Streets shall intersect at right angles as practical except where topography requires a lesser angle, but in no case shall the acute angle be less than 60 degrees unless there is a special intersection design. An arterial or collector street intersecting with another street shall have at least 100 feet of tangent adjacent to the intersection unless topography requires a lesser distance. Other streets, except alleys, shall have at least 50 feet of tangent adjacent to the intersection unless topography requires a lesser distance. Intersections which contain an acute angle of less than 80 degrees or which include an arterial street shall have a minimum corner radius sufficient to allow for a roadway radius of 20 feet and maintain a uniform width between the roadway and the right-of-way line. Ordinarily, the intersection of more than two streets at any one point will not be approved.

**Response:** All intersections are at near-right angles.

(6) Existing Streets. Whenever existing streets adjacent to or within a tract are of inadequate width, additional right-of-way shall be provided at the time of the land division.

**Response**: There are no existing streets on the site, so no additional dedication for street widening is required.

(7) Reserved Strips. No reserved strips controlling the access to public ways will be approved unless the strips are necessary for the protection of the public welfare, and in these cases they may be required. The control and disposal of the land comprising the strips shall be placed within the jurisdiction of the City under conditions approved by the Planning Commission.

Response: Reserve strips are not proposed, but can be provided at the request of the City.

(8) Half Streets. Half streets shall be prohibited except they may be approved where essential to the reasonable development of the subdivision or partitions when in conformity with the other requirements of these regulations, and when the Planning Commission finds it will be practical to require the dedication of the other half when the adjoining property is divided. Whenever a half street is adjacent to a tract to be divided, the other half of the street shall be platted within the tract. Reserve strips may be required to preserve the objectives of half streets.

**Response:** No half streets are proposed.

(9) Cul-de-Sac. A cul-de-sac shall be as short as possible and shall have a maximum length of 400 feet and serve building sites for not more than 18 dwelling units. A cul-de-sac shall terminate with a circular turnaround.

**Response:** No cul-de-sacs are proposed.

(10) Alleys. When any lots or parcels are proposed for commercial or industrial usage, alleys of at least 20 feet in width may be required at the rear thereof with adequate ingress and egress for truck traffic unless alternative commitments for off-street service truck facilities without alleys are approved. Intersecting alleys shall not be permitted.

Response: Only single-family residential development is proposed. Alleys are not proposed.

(11) Grades and Curves. Grades shall not exceed 6% on arterials, 10% on collector streets, or 12% on other streets. Center line radii of curves shall not be less than 300 feet on major arterials, 200 feet on secondary arterials, or 100 feet on other streets, and shall be to an even 10 feet. Where existing conditions, particularly the topography, make it otherwise impracticable to provide buildable sites, the Planning Commission may accept steeper grades and sharper curves. In flat areas, allowance shall be made for finished street grades having a minimum slope, preferably, of at least 05%.

**Response:** The steepest grade is approximately 6.5 percent for Francis Court. All other street grades are less than six percent.

(12) Marginal Access Streets. Where a land division abuts or contains an existing or proposed arterial street, the Planning Commission may require marginal access streets, reverse frontage lots with suitable depth, screen planting contained in a non-access reservation along the rear or side property line, or other treatment necessary for adequate protection of residential properties and to afford separation of through and local traffic.

Response: The site does not abut or contain an existing or proposed arterial street.

(13) Street Names. All street names shall be approved by the Planning Commission for conformance with the established pattern and to avoid duplication and confusion.

**Response:** Tillamook Avenue and Necarney Street are extensions of existing streets, and will continue with those names. Francis Court, Troy Street, and Florence Street are not extensions of abutting streets. There are no other streets in Rockaway with similar names.

(14) Private Streets. The design and improvement of any private street shall be subject to all requirements prescribed by this ordinance for public streets. The land divider shall provide for the permanent maintenance of any street required for access to property in a private street subdivision or a major partition.

**Response:** No private streets are proposed.

34. UTILITY EASEMENTS. Easements for sewer, drainage, water mains, public utility installations, including overhead or underground systems, and other like public purposes shall be dedicated, reserved or granted by the land divider in widths not less than five (5) feet on each side of the rear lot or parcel lines, alongside lot or parcel lines and in planting strips wherever necessary, provided that easements of width, such as for anchorage, may be allowed when the purposes of easements may be accomplished by easements of lesser width as approved by the City.

**Response:** The sewer main servicing the subdivision will be located in a sewer easement under the wetland at the Lake Lytle boundary, extending from the Florence Street cul-de-sac at the west side of the site to the sewer located in Lake Boulevard at the intersection with Smith Street, in the developed subdivision to the northwest. All other public utilities will be located in public rights-of-way. Private utilities will be placed in an eight-foot-wide easement located on lot and tract frontages as required by this standard (Appendix A).

### 35. BUILDING SITES.

- (1) Size and Shape. The size, width, shape and orientation of building sites shall be consistent with the residential lot size provisions of the Development Code with the following exceptions.
  - (a) In areas that will not be served by a public sewer, minimum lot and parcel sizes shall permit compliance with the requirements of the Department of Environmental Quality and shall take into consideration problems of sewage disposal, particularly problems of soil structure and water table as related to sewage disposal by septic tank.

**Response:** Public sewers will serve the subdivision. As illustrated in Table 1 of this Burden of Proof, all lots meet the lot size requirements for the R3 Lower Density Residential Zone.

(b) Where property is zoned and planned for business or industrial use, other widths and areas may be permitted at the discretion of the Planning Commission. Depth and width of properties reserved or laid out for commercial and industrial purposes shall be adequate to provide for the offstreet service and parking facilities required by the type of use and development contemplated.

**Response:** The site is zoned R3, Lower Density Residential, and SA, Special Area Wetland. This criterion does not apply.

(2) Access. Each lot and parcel shall abut upon a street other than an alley for a width of at least 25 feet.

**Response:** All lots abut a street for a distance of at least 25 feet.

(3) Through Lots and Parcels. Through lots and parcels shall be avoided except where they are essential to provide separation of residential development from major traffic arteries or adjacent non-residential activities or to overcome specific disadvantages of topography and orientation. A planting screen easement at least ten (10) feet wide and across which there shall be no right of access may be required along the line of building sites abutting such a traffic artery or other incompatible use.

**Response:** No through lots are proposed.

(4) Lot and Parcel Side Lines. The lines of lots and parcels, as far as is practicable, shall run at right angles to the street upon which they face, except that on curved streets they shall be radial to the curve.

**Response:** Side lot lines for lots west of Tillamook Avenue, east of Necarney Street intersect street lot lines at near-right angles. Florence Street, Francis Court and Troy Street are curvilinear to provide a variety of lot sizes and to reduce the visual impact of a strict street grid pattern. In order to retain a suitable lot width for as much of the lot as possible, side lot lines are parallel to each other. This has resulted in many of the lots having side lot lines that intersect with the frontage street at other than right angles. All lots will have frontage in excess of 50 feet and will allow a regular and orderly row of building facades that follows the curved street layout in a stepped pattern, which will help to establish neighborhood identity and variety.

## 36. BLOCKS.

(1) General. The length, width and shape of blocks shall take into account the need for adequate building site size and street width and shall recognize the limitations of the topography.

**Response:** Block length is determined by the access points onto the site (Tillamook Avenue and Necarney Street), the Rockaway City Limits and Urban Growth Boundary to the east, and Lake Lytle and associated wetlands protected by the SA zone to the west.

(2) Size. No block shall be more than 1,000 feet in length between street corner lines unless it is adjacent to an arterial street or unless the topography or the location of adjoining streets justifies an exception. The recommended minimum length of blocks along an arterial street is 1,800 feet. A block shall have sufficient width to provide for two tiers of building sites unless topography or the location of adjoining streets justifies an exception.

**Response:** Block size is limited by the location of existing streets to the north that extend into the site, Lake Lytle and associated wetlands to the west, the Rockaway City Limits and Urban Growth Boundary to the east and associated wetlands that extend across the northern portion of the site.

The block west of Tillamook Street will be approximately 750 feet long from the intersection with Smith Street (located approximately 90 feet north of the north site boundary) to the south site boundary. Presence of Lake Lytle and wetlands along its boundary prevent connecting streets to the west, which would reduce block size.

Lots fronting the east side of Necarney Street back on the Rockaway City Limits and Urban Growth Boundary, prventing extension of local urban streets in that direction. As a result, the block length is approximately 1,270 feet from the intersection of 12<sup>th</sup> Avenue with Necarney Street to the south site boundary, and in all likelihood will be extended even further as land to the south develops.

(3) Walkways. The applicant may be required to dedicate and improve ten (10) foot walkways across blocks over 600 feet in length or to provide access to school, park, or other public areas.

**Response:** The east-west blocks between Tillamook Avenue and Necarney Street are slightly more than 600 feet in length. A pedestrian pathway is provided at approximately midblock to connect Florence and Troy Streets, and extends north of Troy street to the common open space tract containing the seasonal creek and associated wetlands.

37. LARGE BUILDING SITES. In dividing tracts into large lots or parcels which at some future time are likely to be redivided, the Planning Commission may require that the blocks be of such size and shape, be so divided into building sites and contain such site restrictions as will provide for extension and opening of streets at intervals which will permit a subsequent division of any tract into lots or parcels of smaller size.

**Response:** Full residential development is proposed. No developable tracts or large building sites are proposed.

38. WATER COURSES. The land divider shall, subject to riparian rights, dedicate a right-of-way for storm drainage purposes, conforming substantially with the lines of any natural water course or channel, stream or creek that traverses the subdivision or partitions, or, at the option of the land divider, provide, by dedication, further and sufficient easements or construction, or both to dispose of the surface and storm waters.

**Response:** Significant wetlands are located on the site. Most are located in common open space tracts, where they will remain in their natural state and provide stormwater drainage and detention values. The remainder (approximately 3,100 square feet) will be on portions of private lots, and will be protected through CC&Rs.

## **39. LAND FOR PUBLIC PURPOSES.**

- (1) The Planning Commission may require the reservation for public acquisition, at a cost not to exceed acreage values in the area prior to subdivision, or appropriate areas within the subdivision for a period not to exceed one year providing the City has an interest or has been advised of interest on the part of the State Highway Commission, school district or other public agency to acquire a portion of the area within the proposed subdivision for a public purpose, including substantial assurance that positive steps will be taken in the reasonable future for the acquisition.
- (2) The Planning Commission may require the dedication of suitable areas for the parks and playgrounds that will be required for the use of the population which is intended to occupy the subdivision.

**Response:** The applicant has placed approximately 20 percent of the PUD site in common open area for the benefit of both future PUD property owners and the community as a whole. Because of the environmentally sensitive nature of the wetland resource, it would be unadvisable to allow uncontrolled access or alteration of the areas, so further reservations or dedications are not beneficial.

40. UNSUITABLE LAND. The Planning Commission may refuse to approve a subdivision or partition when the only practical use which can be made of the property proposed to be subdivided or partitioned is a use prohibited by this code or law, or if the property is deemed unhealthful or unfit for human habitation or occupancy by the County or State health authorities, or, if the property is deemed unhealthful or unfit for human habitation or state health authorities.

**Response:** The proposed use in the R3 Zone is detached single-family residences. It is a use that is allowed outright. No development is proposed in the SA zone.

41. LAND SUBJECT TO INUNDATION. If any portion of land proposed for development is subject to overflow, inundation or flood hazard by, or collection of, storm waters, an adequate system of storm drains, levees, dikes and pumping systems shall be provided.

**Response:** The far western portion of the site is below elevation 12 feet msl, so is in an A0 Flood Hazard Zone. The portion of the site within the AO zone will be placed in an open space tract and remain undisturbed. All streets and lots will be above the Base Flood elevation. Stormwater runoff from streets will be collected through a series of catch basins and directed through a pipe system to a series of stormwater swales for treatment prior to discharge to adjacent wetlands. Onsite stormwater detention systems will be used on individual lots, and designed to City requirements. All lots are above the Base Flood level, so all homes will be constructed above the Base Flood level as required by City standards.

42. PROPOSED NAME OF SUBDIVISION. No tentative subdivision plat or subdivision plan or subdivision shall be approved which bears a name approved by the County Surveyor or County Assessor, which is the same as similar to or pronounced the same as the name of any other subdivision in Tillamook County unless the land platted is contiguous to and platted by the same party that platted the subdivision bearing that name, or unless the party files and records the consent of the party that platted the contiguous subdivision bearing that name. All subdivision plats must continue the lot numbers and if used, the block numbers of the subdivision plat of the same name last filed.

**Response:** The proposed name of the Subdivision is Lake Lytle Estates Units 4, 5, 6, and 7. There is no other subdivision of that name in Tillamook County.

- 43. IMPROVEMENT STANDARDS AND APPROVAL In addition to other requirements, all improvements shall conform to the requirements of this ordinance and any other improvement standards or specifications adopted by the City, and shall be installed in accordance with the following procedure:
- •••
- 44. IMPROVEMENT REQUIREMENTS. Improvements to be installed at the expense of the subdivider or applicant and at the time of subdivision or partition:

•••

Response: These requirements will be met during development.

45. MONUMENTS....46. SURVEY REQUIREMENTS....

Response: These requirements will be met at final plat.

## IV. CONCLUSION

An 85-lot subdivision, to be developed in four phases on an 18.90-acre portion of a 31.15-acre tract of land east of Lake Lytle, is proposed. The site is in a unique location, being between Lake Lytle on the west, a significant natural feature of Rockaway Beach, and the Rockaway City Limits and Urban Growth Boundary on the east. The subdivision is a continuation of the existing Lake Lytle Estates development north of the site, and will extend the street system and services to undeveloped land to the south. The subdivision will cluster the detached single-family residences on the upland portion of the site, allowing preservation of land along a small creek containing significant wetlands forested with large spruce trees. The proposed development will provide a quality residential addition to the Lake Lytle Estates neighborhood in a manner that avoids adverse impacts to wetlands to the greatest extent practicable. Most remaining wetlands will be placed in common open space tracts, ensuring long-term natural resource protection. All City subdivision and development requirements are met, and the proposal can be approved.

APPENDIX A

# APPLICANT

Resolved C703X001 C703X190 C703X230 C703X230H 

XREF\_LIST

Ltscale: 100

**TROY JOHNS** Name: 12432 NE 20TH STREET Address: VANCOUVER, WA 98684 (503) 904-9144 Phone: (360) 600-4425

# LAND OWNER

A

lame:	ROBERT SCHMELING (1/2) & TROY JOHNS (1/2)
ddress:	1621 84TH COURT
	VANCOUVER, WA 98664

LOT 9

4317.13

4324.13

PNT #

80

83

## CIVIL ENGINEER

Name: Contact: Address:	HLB OTAK, INC. RICHARD STELZIG, P.E.
	4253-A HWY 101 NORTH GEARHART, OR 97138
Phone: Fax:	(503) 738-3425 (503) 738-7455

# WETLANDS CONSULTANT

Name:	RORIK ENVIRONMENTAL SERVICES
Contact:	NANCY RORIK, REGISTERED GEOLOGIST
Address:	37552 SE RACHAEL DRIVE
	SANDY, OR 97055
Phone:	(503) 668-8660

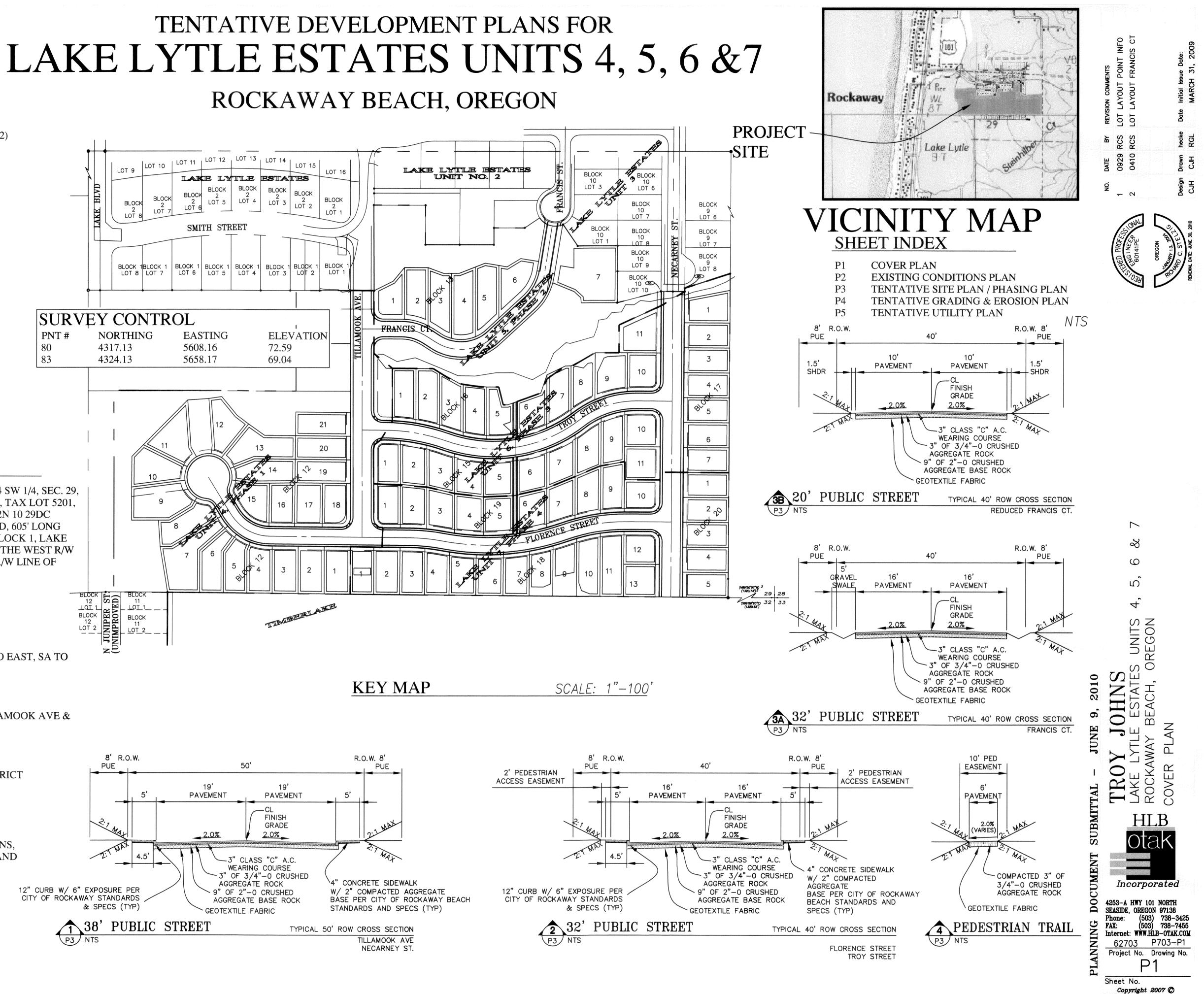
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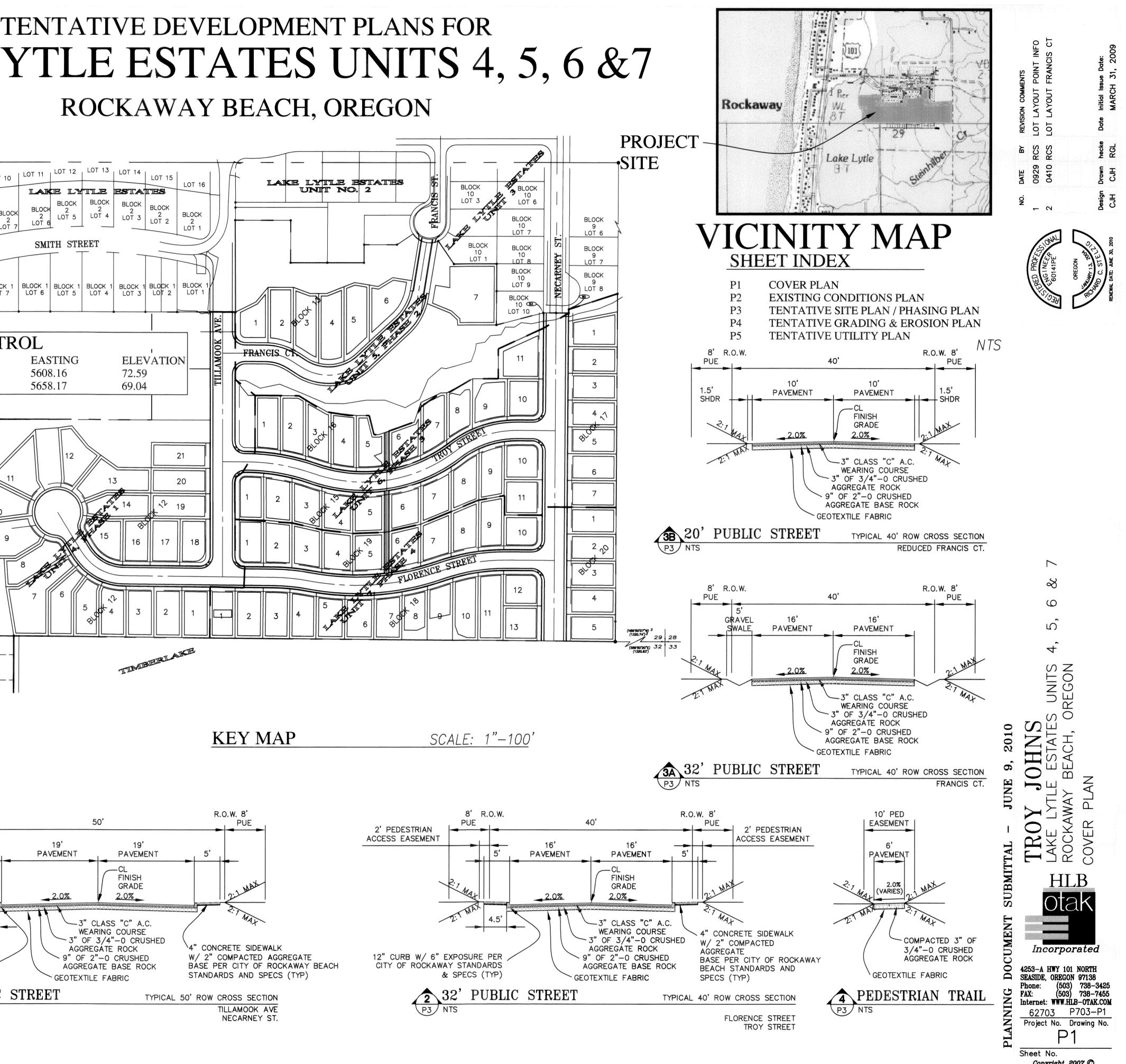
Name:	CITY OF ROCKAWAY BEACH
Address:	PO BOX 5
Phone: Fax:	ROCKAWAY BEACH, OR 97136 (503) 355-2291 (503) 355-8221

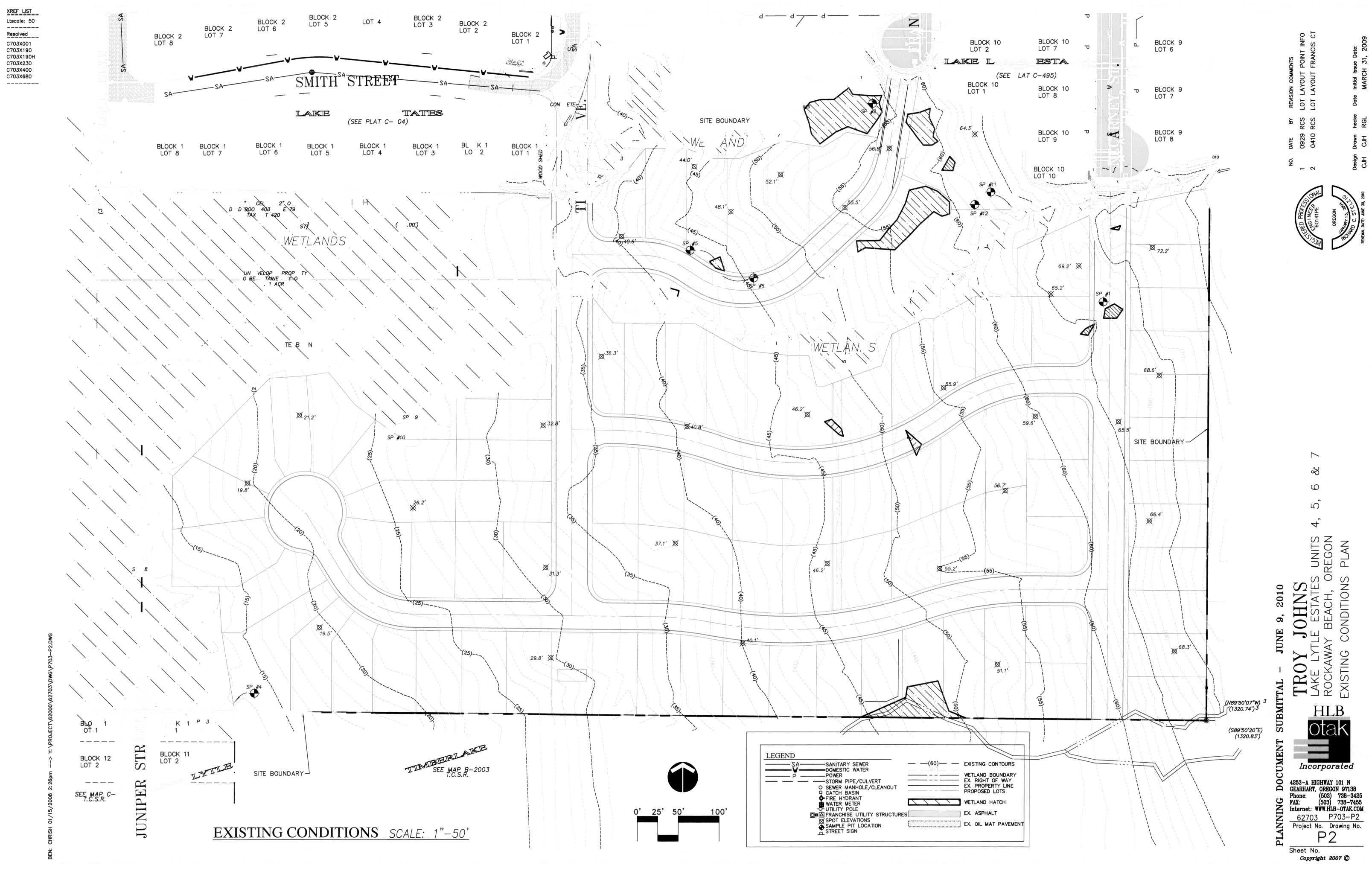
# **PROJECT DATA**

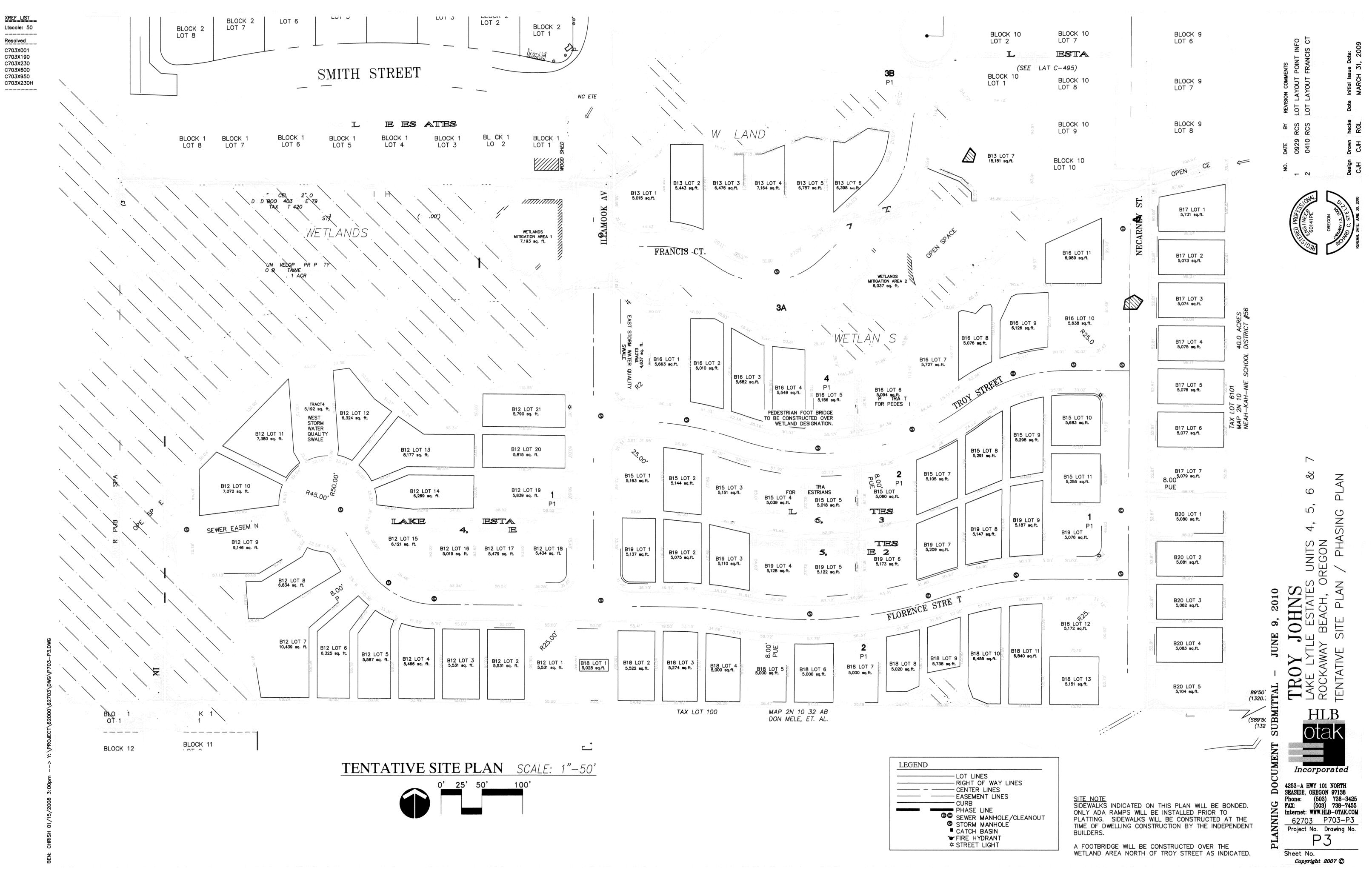
TAX MAP AND LOT	PORTION OF SW 1/4 SE 1/4 AND SE 1/4 SW 1/4, SEC. 29 T2N, R10W, WILLAMETTE MERIDIAN, TAX LOT 5201 MAP 2N 10 AND TAX LOT 4200, MAP 2N 10 29DC (TAX LOT 4200 IS A 39' STRIP OF LAND, 605' LONG LOCATED ON THE SOUTH SIDE OF BLOCK 1, LAKE LYTLE ESTATES, EXTENDING FROM THE WEST R/W LINE OF LAKE BLVD. TO THE EAST R/W LINE OF TILLAMOOK AVENUE)	,
LOT SIZE RANGE: TOTAL LOTS: GROSS AREA: DENSITY: CURRENT ZONING: ADJOINING ZONES:	5,000 - 15,151 SF 85 18.90 acres 4.50 lots per acre R-3 R-3 TO NORTH, R-R TO SOUTH, R-3 TO EAST, SA TO WEST	BLOCK 12 LOI 1 BLOCK 12 LOI 1 BLOCK 12 BLOCK 12 BLOCK 11 BLOCK 12 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 LOI 1 BLOCK 11 BLOCK 12 LOI 1 BLOCK 11 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 12 BLOCK 11 BLOCK 1
PROPOSED USE: PRESENT USE: ACCESS:	SINGLE FAMILY RESIDENCE VACANT FRANCIS STREET, LAKE BLVD, TILLAMOOK AVE & NECARNEY ST.	
DOMESTIC WATER: SEWAGE DISPOSAL: POWER: FIRE PROTECTION: GAS: CABLE TELEVISION: PHONE:	CITY OF ROCKAWAY BEACH CITY OF ROCKAWAY BEACH TILLAMOOK PEOPLE'S UTILITY DISTRICT CITY OF ROCKAWAY BEACH N/A CHARTER COMMUNICATIONS EMBARQ	8' R.O.W. PUE 5'
AND RIGHTS-OF-WAY	VE SEPARATE WATER, SEWER, AND 12" CURB W/	6" EXPOSURE PER AWAY STANDARDS & SPECS (TYP)
	P3	38' PUBLI

# **TENTATIVE DEVELOPMENT PLANS FOR**

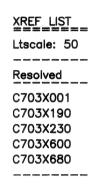


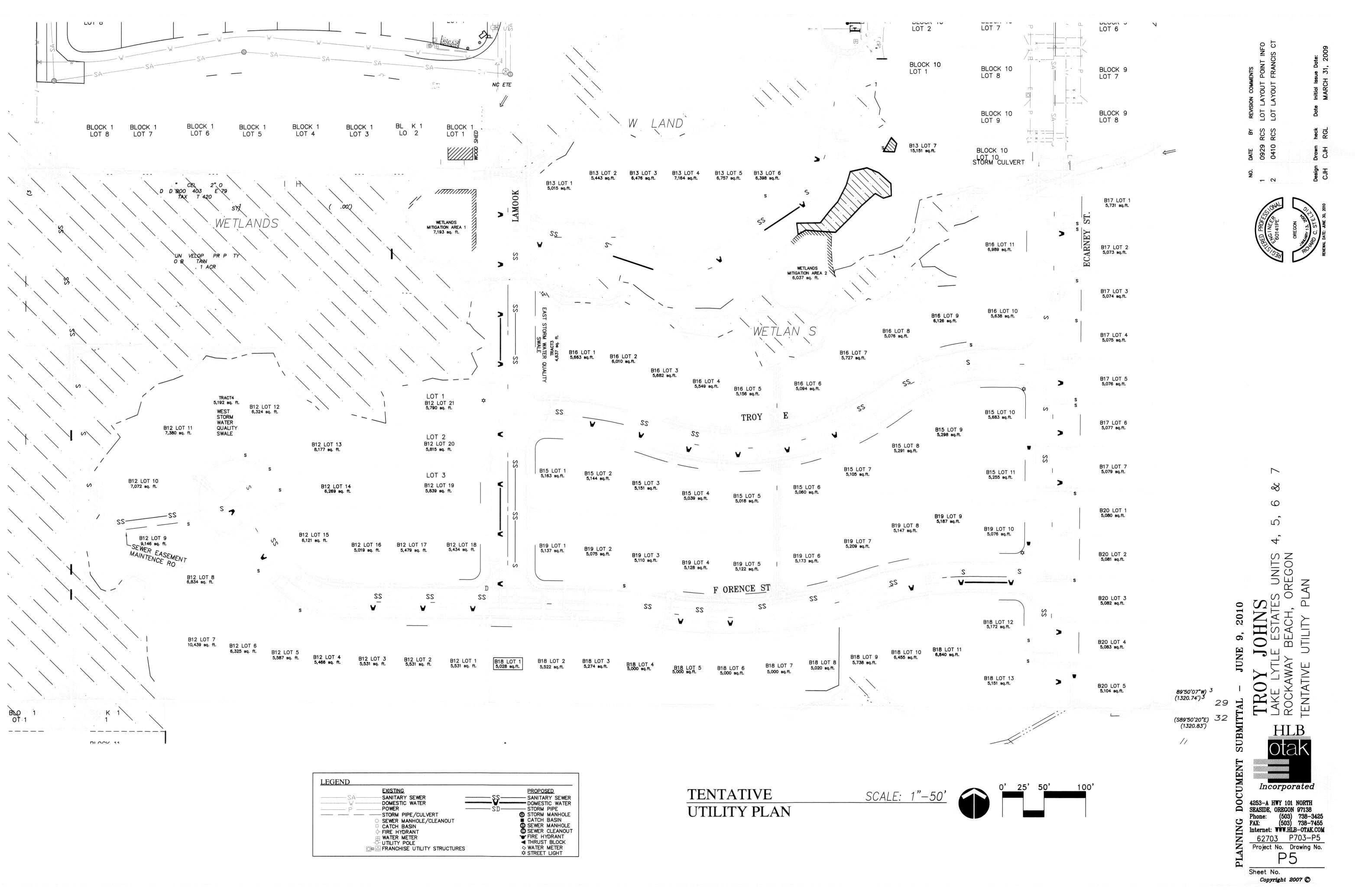












APPENDIX B

Legal Description for Troy Johns of Adjusted Parcel 1

September 5, 2008

A tract of land located in the southeast one-quarter of Section 29, Township 2 North, Range 10 West, W.M., County of Tillamook, State of Oregon, further described as follows:

Commencing at the southwest corner of LAKE LYTLE ESTATES, (Map C-404), Tillamook County Plat Records;

thence N90°00'00"E along the south line of said plat 440.00 feet to the Point of Beginning;

thence continuing N90°00'00"E along the south line of said plat 165.00 feet;

thence N00°06'03"W along the east line of said plat 180.93 feet;

thence the following courses and distances along the south line of LAKE LYTLE ESTATES UNIT NO. 3, (Map C-495) Tillamook County Plat Records:

thence N90°00'00"E, 109.22 feet;

thence S00°19'44"W, 83.53 feet;

thence N90°00'00"E, 145.00 feet;

thence N00°19'44"E, 35.49 feet;

thence S90°00'00"E, 64.73 feet;

thence N56°17'45"E, 38.24 feet;

thence along a 40.00 foot radius curve to the right, through a central angle of 80°38'33" (the chord of which bears S74°15'38"E, 51.77 feet) an arc distance of 56.30 feet;

thence \$34°15'31"E, 54.79 feet;

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thence N90°00'00"E, 84.72 feet;

thence S00°19'44"W, 120.62 feet;

thence N75°29'44"E, 95.86 feet;

thence S89°40'16"E, 50.00 feet;

thence N00°19'44"E, 7.24 feet;

thence N72°02'57"E, 100.97 feet;

thence leaving the south line of LAKE LYTLE ESTATES UNIT NO. 3 S00°18'17"W, 686.13 feet to the south line of Section 29, Township 2 North, Range 10 West, W.M.;

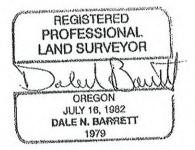
thence N89°31'17"W along said section line 1,300.16 feet;

thence N00°00'00"W, 429.03 feet;

thence N90°00'00"E, 385.00 feet;

thence N00°00'00"W, 210.00 feet to the Point of Beginning;

Containing +/- 18.9 acres.



RENEWAL DATE: DEC. 31, 09

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APPENDIX C

AFTER RECORDING RETURN TO:

Name of attorney Attorney at Law address Vancouver, WA 98660

## LAKE LYTLE ESTATES SUBDIVISION, UNITS 4, 5, 6 & 7 DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS

THIS DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS is made this \_\_\_\_\_ day of January, 2007, by LAKE LYTLE ESTATES, LLC, an Oregon Limited Liability Company ("Declarant").



1.1 Property: Declarant is the owner of real property legally described as Block 12 Lots 1-21, Block 13, Lots 1–12, Block 14, Lots 1-5, Block 15, Lots 1-10. Block 16, Lots 1-11, Block 17, Lots 1-11, Block 18, Lots 1-7, Block 19, Lots 1-8, Block 20, Lots 1-2, LAKE LYTLE ESTATES Subdivision, as platted and recorded in Plat Cabinet \_\_\_\_\_\_ of Plat Records, in Tillamook County, Oregon. The entire property described herein is the "Property."

1.2 Development Plan: Declarant desires to create a general plan of development of the Property for the mutual benefit of all future owners. The plan, in general, will provide for the development of the Property in separate building parcels to be used for single family residences. In addition, no more than a duplex building shall be allowed on any one lot within LAKE LYTLE ESTATES, with the exception that no more than one single family residence shall be allowed on any lot within the first phase of 21 lots.

1.3 Declaration: NOW, THEREFORE, Declarant hereby declares that all of the Property shall be held, sold, and conveyed subject to the following covenants, conditions, restrictions, and easements, which shall run with the Property and shall be binding upon all parties having or acquiring any right, title or interest in the Property or any part thereof, shall be part of all transfers and conveyances of the Property, or any portion thereof within such platted areas as if set forth in full in such transfers and conveyances, and shall inure to the benefit of each owner thereof.

#### **II.** DEFINITIONS

2.1 **Owner**: Owner shall mean and refer to the record owner, whether one or more persons or entities of a fee simple title to any parcel which is part of the Property, including contract purchasers, but excluding those having such interest merely as a security for the performance of an obligation; and shall mean and refer to Declarant for all land not yet sold.

2.2 Lot/Parcel: Lot or parcel shall mean any portion or combination of all properties utilized as a separate building site, and designated by Tillamook County or the City of Rockaway Beach as a separate building site for building permit purposes.

**2.3** Association: Association shall mean and refer to the LAKE LYTLE ESTATES Homeowners Association, a nonprofit corporation, its successors and assigns.

2.4 Common Property or Common Area: Common Property or Common Area shall mean all real property (including the improvements thereto), owned by the Association, wetlands located in separate tracts, and facilities existing within easements where the Association is grantee, and facilities existing within private roadway easements, for the common use and enjoyment of the Owners and all wetland areas. The common area to be owned by the Association is described as follows:

The common areas as designated on the recorded Plat or Plats of the LAKE LYTLE ESTATES Subdivision, including but not limited to open space, wetland tracts, landscaping, private roadways, and any other facility or improvement located or to be located within the common area.

"Common Property" or "Common Area" shall also mean and include any "common property" or "common area" included within contiguous properties annexed to this Declaration by Declarant by executing and recording an affidavit with the Tillamook County Clerk.

#### **III. DEVELOPMENT AND USE RESTRICTIONS**

**3.1** Enjoyment of Property: The Owners shall use their respective properties to their own enjoyment in such a manner so as not to offend or detract from other Owners' enjoyment of their own respective properties. All Owners shall use their property solely and exclusively for private one family residences, not to exceed one (1) duplex building per lot( except that Phase I consisting of 21 lots shall not exceed one single family dwelling per lot) which may include appurtenant or non appurtenant garages, No parcel shall be further subdivided without Declarant's prior written approval. Thereafter, no parcel shall be further subdivided without prior approval conferred by the Association. The maintenance, upkeep and repair of parcels, other than wetland areas lying within owners lots, shall be the sole responsibility of the individual owners, and in no way shall it be the responsibility of the Association. Owners shall maintain their parcels and any and all appurtenances in good order, condition and repair, and in a clean, sightly and sanitary condition at all times. Without limitation of the foregoing, each owner shall be obligated to maintain the landscaping on his parcel in a healthy and attractive state.

The owners of the parcels shall obtain approval from the Architectural Control Committee, as set forth elsewhere in the Declaration, for the construction of any residence. All Owners shall comply with all the terms and conditions of the final LAKE LYTLE ESTATES Plat approved by the City of Rockaway Beach and/or Tillamook County, Oregon. The terms and conditions of said Plat approval is incorporated by reference herein as though fully set forth. **3.2** Temporary Dwelling: No structure of a temporary character, mobile home or trailer, tent, shack, garage, barn or other outbuildings shall be used as a residence.

**3.3** Building Location and Views: No structure shall be located on any Parcel with respect to set-back from front, side and rear property lines, except in conformity with the planning regulations and requirements of the municipal government having jurisdiction within the area in which this Property is located. A reasonable effort shall be made to retain the existing view for each Parcel.

**3.4 Dwelling**: No more than one duplex building and/or single family residence shall be allowed on any parcel.

**3.5 Derogation of Law**: No owner shall carry on any activity of any nature whatsoever on his property that is in derogation of in violation of the laws and statutes of the State of Oregon, Tillamook County, the City of Rockaway Beach or other applicable government body.

**3.6 Easement**: Easements for the installation and maintenance of utilities are reserved as shown on the recorded survey or subdivision plat.

3.7 Fences, Hedges and Trees: All fences, hedges or trees situated anywhere upon a parcel, the properties or the common area must be approved in writing by the ACC as to its height, design, and consistency with the landscape plan and stormwater plans for the Plat, prior to construction. No portion of any wetland, landscaping or stormwater facilities, including buffers or swales, shall be altered or adversely affected by the Owner or Owner's agents.

No trees measuring a minimum six (6) inches in diameter at breast height shall be removed from outside the building envelope on any parcel unless necessary for construction, access or utilities, or from within such building envelope on any parcel unless necessary for construction, access, utilities or the creation of a reasonable yard. Furthermore, no trees shall be removed from the Common Areas without permission from the ACC. The ACC shall have the right to replace any tree or trees removed without authorization and replacement costs shall be borne by the person or persons removing such tree or trees. **3.8 Maintenance:** Nuisance: No Parcel shall be used or maintained as a dumping ground for discarded equipment, vehicles, rubbish, trash, garbage or similar material. Each Parcel shall be kept clean of refuse and in a sanitary condition. Each Parcel shall be kept free of all noxious weeds and grass is to be mowed or regularly hayed to prevent fire hazards. No noxious or offensive activity shall be carried on or upon any Parcel nor shall anything be done thereon which may be or become a nuisance or annoyance to the neighborhood.

**3.9 Landscape Requirements**: Parcels shall be adequately landscaped to maintain a neat and consistent appearance with the remaining Parcels. A landscaping plan shall be submitted with the plans and specifications required under Paragraph 4.2 herein. All front yard landscapes shall be completed prior to occupancy, weather permitting.

**3.10** Pets: No animals, livestock, or poultry of any kind, other than household pets shall be kept or maintained on any part of any Parcel. Dogs and cats may be kept on a Parcel, provided that they are not kept, bred, or maintained for any commercial use or purpose.

**3.11 Parking**: No person shall park a motor vehicle, boat, trailer, aircraft, or other vehicles on streets or alleyways of the Property except that Owner's visitors and guests may park in said streets for short term visitation.

**3.12** Signs: No signs of any kind, except public notice by a political division of the State or as required by law, shall be erected, posted, or displayed on any Parcel whatsoever; provided, however, that any builder may erect and display signs during the period he/she is building and selling property in and that any Owner wishing to sell his home may place one sign not larger than four hundred (400) square inches advertising the Parcel for rent or sale.

**3.13** Storage: No person shall store, repair or restore any motor vehicle, boat, trailer, aircraft, or other vehicle upon any Parcel or streets except for such emergency repairs necessary to enable the movement thereof.

**3.14** Satellite Dishes: Satellite dishes or other similar devices shall be no larger than 18" in diameter and shall be located in a manner that does not adversely impact the view of adjoining lots, or adversely impact the character of the neighborhood, or which can be seen from the street. The location of the satellite dishes shall be approved by the ACC prior to installation.

**3.15** Inoperable Automobiles: Inoperable cars or other unsightly vehicles shall not be stored on any parcel in view of the roads or the homes of other parcel owners.

**3.16** Trash and Trash Containers: All garbage or trash containers must be stored within a permanent structure where they are not visible from outside the premises. No trash, garbage, ashes, yard rakings or other materials resulting from landscaping activity, or other refuse, shall be thrown, dumped, or allowed to accumulate on any parcel, building site, street, alley, driveway or Common Area. All such materials placed in open view for collection shall be removed within 24 hours of such placement.

**3.17 Unoccupied Parcels**: Owners of unoccupied parcels shall maintain the same in an orderly fashion including maintaining grass and trees in a condition equal to that which existed at the time of parcel purchase. In the event a condition exists inconsistent with this or any other restriction herein, any person entitled to hereunder may use the legal powers as set forth in this Declaration to correct said inconsistent condition.

3.18 Automobile Storage Areas: Each residence shall have an enclosed garage providing sufficient storage space for at least one automobile. No automobile garage shall be permanently enclosed or converted to other use without the substitution of another automobile garage. Garage doors shall be kept closed at all times practicable so as to maintain the sightliness of the subdivision as a whole.

**3.19** Building Type and Completion: When construction on any unit has begun, it must be pursued to completion with diligence and finished within twelve (12) months from the issuance of the building permit. This term may be waived and extended for a reasonable time by the Board or the ACC. No building shall be erected, placed or permitted to remain on any parcel other

than either one duplex unit or one single-family dwelling containing not less than 1400 finished square feet of livable enclosed floor area for a single story dwelling, and not less than 1500 square feet of livable enclosed floor area for a two story dwelling (exclusive of open or screen porches, basements, terraces, patios or garages).

**3.20** Roofing Material: All roofs shall be guaranteed to last for 40 years.

**3.21 Driveway Construction**: All driveways shall be constructed with concrete from the edge of the paved street to the edge of the garage floor. Any variation in design or material must be submitted to and approved the ACC, which must review and approve all driveway designs.

**3.22** Architectural Design: All homes shall be designed to reflect a quality similar to the quality of homes pictured in the attached Exhibit A." Cedar shingle and/or cedar lap siding or painted hardi plank or equivalent siding and or brick stone are the preferred siding materials for home construction within the Plat. Said materials shall be used unless a substitute material is reviewed and approved by the ACC.

**3.23** Enforcement: The failure on the part of the Declarant or any Owner affected by these restrictions, at any time, to enforce any of the provisions hereof shall in no event be deemed a waiver thereof, or of any existing violation thereof, nor shall the invalidation of any of said reservations, conditions, agreements, covenants and restrictions by judgment of court order affect any of the other provisions hereof, which shall remain in full force and effect. Should any suit or action be instituted by any of said parties to enforce any of said reservations, conditions, agreements, covenants, and restrictions, or to restrain the violation of any thereof, after demand for compliance therewith or for the cessation of such violation and failure to comply with such demand, then and in either of said events and whether such suit or action be reduced to decree or not, the party instituting such suit or action shall be entitled to recover from the defendants therein such sum as the court may adjudge reasonable attorney's fees in such suit or action, in addition to statutory costs and disbursements.

# IV. DESIGN AND ARCHITECTURAL CONTROL

#### 4.1 Design Review and Architectural Control Committee

**4.1.1** The Association shall have an Architectural Control Committee (ACC) composed of the Declarant.

**4.1.2** The Declarant shall act as the whole ACC until such time as the Declarant no longer owns any property in the Plat or until it elects to terminate its authority under Section 5.2. At the termination of the Declarant's interest, it shall appoint all of the original members of the ACC, which shall be three (3).

4.2 Power of the Architectural Control Committee: The ACC shall have the following powers:

**4.2.1** To review and approve, disapprove or conditionally approve all plans, submittals, applications and requests made or tendered to it by Owners, or their agents, pursuant to its rules and regulations. In connection therewith, the ACC shall investigate and consider the architecture, design, layout, landscaping, energy conservation measures, view protection or enhancement measures, water conservation measures, fence detail, relationship of dwelling to adjacent dwellings and existing trees, and all other features of the proposed improvement for consistency with the requirements and guidelines of the CC&Rs and the final plat.

**4.2.2** To adopt rules and regulations for the transactions of business, scheduling of meetings, conduct of meetings and related matters.

**4.2.3** To require the submission of site plans, diagrams, photographs, materials or other presentation material as may be necessary for complete review and consideration of the proposed development. All such plans and specifications shall be submitted in writing in duplicate and each shall be signed by the Owner of the parcel or his or her authorized agent.

**4.2.4** To adopt criteria, consistent with the purpose and intent of this Declaration to be used in making its determination to approve, disapprove, or conditionally approve any matter submitted to it for decision.

**4.2.5** To adopt a schedule of reasonable fees for processing submittals and to establish the time and manner in which such shall be paid.

### **4.3 Duties of the ACC**: The ACC shall:

ACC shall find:

**4.3.1** Render a decision on each matter submitted to it, in writing, within thirty (30) days of receipt of all data required by its rules and regulations.

**4.3.2** Publish and make available to Owners and prospective Owners all of its rules, regulations, and criteria from time to time adopted.

**4.3.3** As conditions precedent to approval of any matter submitted to it, the

**4.3.3.1** The approval of the plan is consistent with these CC&Rs.

**4.3.3.2** General architectural consideration including site layout, relationship of site to natural features, and adjacent home, open space and topography, orientation and locations of buildings, vehicular access, circulation and parking, setbacks, height, walls, fences, view protection and enhancement, and similar elements have been designed to provide a desirable environment for the development.

**4.3.3.3** General site considerations including site layout, relationship of site to trees and other natural features, open space and topography, orientation and locations of buildings, vehicular access, and driveway lighting, circulation and parking, setbacks, height, walls, fences, and similar elements have been designed to provide a desirable environment for the development.

**4.3.3.4** General landscape consideration, including the location, type, size, color, texture, and coverage of plant materials, maintenance and protection of existing landscaped areas and similar elements have been considered to ensure visual relief, to complement buildings and structures, and to provide an attractive environment for the enjoyment of the Owners in general and the enhancement of the property values in LAKE LYTLE ESTATES Plat or any future annexations.

**4.3.4** If the ACC makes a negative finding on one or more of the matters set forth in paragraph 4.3.3 above, as applicable to the matter before it, it shall disapprove such matter, or condition its approval so as to allow such findings to be made.

4.5 Waiver of Liability of Declarant: Neither Declarant nor its successors or assigns shall be liable in damages to anyone submitting plans to them for approval, or to any Parcel Owner, lessee or occupant of land affected by this Declaration by reason of mistake in judgment, negligence, or nonfeasance arising out of or in connection with the approval or disapproval of failure to approve, deny or review such plans. Every person who submits plans to Declarant for approval agrees, by submission of such plans, and every Owner, lessee or occupant of any of said Parcels agree, by acquiring title thereto or interest therein, that he or she will not bring any action or suite against Declarant to recover any such damages. Declarant's review and approval or disapproval of plans and specifications shall be for all Owners' benefit, and shall not be relied upon by the applicant in any way as an indication of sufficiency, structural soundness or in any other way, such review having been made solely to assure Declarant that the improvements contemplated would be aesthetically compatible with the general plan of the Property.

### V. OWNERS COMMITTEE

5.1 Declarant Control: Declarant shall exclusively exercise all architectural, landscaping, maintenance controls, and all authority vested in the Association by the covenants, so long as Declarant holds title to any Parcels of Property, or until Declarant elects to terminate its interest in the Property as set forth in Section 5.2 below, whichever occurs first.

5.2 Declarant Controls Termination: Declarant reserves the right to terminate its interest or authority in the Plat at any time. At such time the Declarant's interest in the Property is terminated, whether voluntarily or involuntarily, Declarant shall cause to be recorded in the records of Tillamook County, Oregon a document stating that Declarant no longer holds any interest or does not desire to exercise any further control over development of the Property. Copies of such document shall be provided to each Parcel Owner contemporaneously with recording of such document. Recordation of such document shall formally terminate Declarant's interest in the Property, and all right of architectural, landscaping and maintenance controls, as well as any other duties of Declarant under this Declaration.

5.3 Election Board: Within thirty (30) days after formal termination of Declarant's interest in the Plat the initial Board government committee (the "Committee") shall be elected. Persons eligible for the initial committee shall be limited to Owners of any parcel within the Property. Declarant shall solicit from, and then circulate to all Parcel Owners, a list of nominees for the initial committee's positions within the thirty (30) day organizational period. Declarant shall then conduct an election of the initial committee.

5.4 Voting Rights: Each Parcel Owner shall have the right to cast one (1) vote per each Parcel of property owned in the Property for each committee's position. The initial committee shall meet within ten (10) days after their election, and may at that time adopt any governing documents relating to the Committee and the Plat. The membership held by an Owner may not be transferred, pledged or alienated in any way except upon sale to a purchaser of a Parcel, at which time such membership and voting rights shall automatically be deemed assigned to the purchaser of such Parcel.

5.5 No Further Responsibility: In the event Declarant is unsuccessful in organizing the committee within the thirty (30) day organizational period, Declarant shall have no further responsibilities relating to the Committee, and the Committee shall be organized exclusively

by the Owners of Parcels within the Property. Such failure of organization of the Committee shall not affect the effectiveness of this Declaration.

**5.6 Annexation**: Additional contiguous residential property and Common Area may become part of the LAKE LYTLE ESTATES Subdivision Plat. Declarant shall have this right regardless of whether Declarant shall have terminated his interest in the Owners Committee or the ACC, and regardless of whether Declarant owns a lot. Owners of lots in future phases of LAKE LYTLE ESTATES shall have the same rights to utilize Common Areas as do current lot Owners.

5.7 Effect of Nonpayment of Annual or Special Assessments: Remedies of the

Association: Any assessment not paid within thirty (30) days after the due date shall bear interest from the due date at twelve percent (12%) per annum or the maximum rate allowed under Washington law, whichever shall be greater. The Association may bring an action at law against the Owner/Member personally obligated to pay the same, or foreclose the lien in any manner or by any means available under the laws of the State of Oregon. Costs and reasonable attorney's fees or any such action shall be added to the total amount of such assessments. No Owner may waive or otherwise escape liability for assessments provided for herein by nonuse of the Common Area or by abandonment of his or her parcel.

**5.8 Exempt Property**. The following property subject to this Declaration shall be exempt from assessments created herein:

**5.8.1** All properties and parcels owned by the Declarant, except any parcel occupied and developed by Declarant as a homestead.

5.8.2 All properties dedicated to and accepted by a local public authority.

5.8.3 All Common Area and properties.

# VI. COVENANT FOR ANNUAL AND SPECIAL ASSESSMENTS

6.1 Creation of Lien and Personal Obligation of Assessments: The Declarant for each parcel owned within the Properties hereby covenants and each Owner of any parcel is deemed to covenant, and agrees to pay to the Association: Annual maintenance and operation assessments and special assessments for emergency and capital improvements, such assessments to be established by the Declarant or if it has no further interests in the Property of the Plat, then by the Committee. The annual and special assessments together with interest, costs, and reasonable attorney's fees shall be a personal obligation of the person who was the Owner of such property at the time the assessment fell due. Delinquent assessments together with interest, costs, and reasonable attorney's fees shall be a lien upon the parcel if the Association files a claim of lien with the Tillamook County Recording Office. The priority of such lien shall be based on the date the claim of lien is filed.

6.2 **Purpose of Assessments**: The assessment levied by the Association shall be used exclusively to promote the recreation, health, safety and welfare of the residents in the properties and for the capital improvements and/or maintenance of the Common Area, facilities, improvements and private roads, depending upon the stated purpose for which said assessment is levied, and to support the operations of the Association.

**6.3 Annual Assessments: Procedure and Maximum**: The Association shall have the power and authority to revy annual operating and maintenance assessments on its members. Prior to the commencement of each fiscal year, the Declarant or the committee shall estimate the costs and expenses to be incurred by the Association during each fiscal year in performing its function under this Declaration (including a reasonable provision for contingencies). A budget for such fiscal year shall be prepared and distributed not less than thirty (30) days before the beginning of such year. The budget shall also show the anticipated balance (exclusive of any reserves) in the operating fund at the start of such fiscal year which is attributable to operation and maintenance assessments for the prior fiscal year which shall be subtracted from the gross operation expenses shown. The net estimated operating revenue so determined shall be assessed to the Owners as the regular operation and maintenance assessment by dividing the total net estimated operation revenue by the total number of parcels in the properties to which the respective assessments apply, and assessing the resulting amount to the Owner of each parcel.

6.4 Special Assessment for Capital Improvements: In addition to the annual assessment authorized above, the Association may levy in any year a special assessment applicable to that year only for the purpose of defraying, in whole or in part, the costs of any construction, reconstruction, repair or replacement of a capital improvement upon the Common Area or facilities, including fixtures and personal property related thereto, when such improvements are deemed necessary by the Committee. Prior to Assessment, the Declarant or Committee shall solicit no less than three competitive bids from reputable suppliers or contractors, and use its best judgment in the selection thereof. In the case of alley maintenance, should they be necessary, only those Owners who own lots adjacent to those alleys may be assessed.

6.5 Rate of Assessment and Reserve Fund: Both annual and special assessments shall be fixed at equal rates for each parcel to which the assessment applies, and shall be paid when and as directed by the Declarant or the Committee. The Association shall establish and maintain an adequate reserve fund for capital improvements and emergency repairs.

6.6 Date of Commencement of Assessments: Due Dates: The first annual assessment shall be adjusted according to the number of months remaining in the calendar year and shall become payable on the first day of the month following the closing of the purchase transaction. Written notice of the annual and special assessment shall be sent to every Owner subject thereto. The Association shall, upon demand and for a reasonable charge, furnish a certificate signed by an Officer of the Association setting forth whether the annual and special assessment on a specified parcel has been paid. A properly executed certificate of the Association as to the status of annual and special assessment on a parcel is binding upon the Association as of the date of its issuance.

6.7 Interpretation: The captions herein are for convenience of use and reference only and do not define, limit, augment or describe the scope, content or intent of this Declaration or any parts of this Declaration. Any reference to the neuter, feminine or masculine gender each also includes the other when the context so requires. The single number includes the plural whenever the context so requires.

#### VII. PROPERTY RIGHTS

7.1 **Owner's Rights of Enjoyment**: Every owner shall have a right of enjoyment in and to the Common Areas, facilities and improvements thereof which shall be appurtenant to and shall pass with the title to every parcel, subject to the following provisions:

7.1.1 The right of the Association to charge reasonable assessments for the maintenance and operation of Common Areas or facilities situated within the plat;

**7.1.2** The right of the Association to suspend the voting rights and the right to the use of any common facilities by an Owner for any period during which any dues or assessments against his or her parcel remain unpaid after the 30 day grace period; and for a period not to exceed sixty (60) days for any infraction of its published rules and regulations;

**7.1.3** The right of the Association to dedicate, sell, convey, or transfer all or any part of the Common Area and/or facilities to any individual, public agency, authority, utility or other entity for such purposes and subject to such conditions as may be agreed to by members or required by law, and also subject to the requirements of Section 3.1 of this Declaration relating to the recorded Plat approved by the City of Rockaway Beach, Oregon; and subject to Section 8.4.

7.1.4 The right of the Architectural Control Committee ("ACC") to review and approve, pursuant to the terms and conditions of this Declaration, the construction of all residences and appurtenant structures constructed upon any parcel, the properties or the common area.

### VIII. COMMON AREA AND FACILITIES

8.1 Maintenance: The Association shall have full responsibility for maintenance and repair of the Common Area and Facilities as herein defined. The Association shall also have full responsibility for any wetland mitigation conditions imposed upon the approval of this Plat or upon the approval of the LAKE LYTLE ESTATES final plat by the Army Corps of Engineers or the City of Rockaway Beach, including but not limited to, monitoring, maintenance, enhancement, or protection from degradation. The tracts identified on the final plat as wetlands shall be left undisturbed and in their natural state. Provided, however, the Association shall maintain the wetlands areas by periodically weeding or spraying noxious plants harmful to the wetlands, so long as such maintenance is allowed by the Division of State Lands and the United States Army Corps of Engineers. The Association shall strictly enforce this wetland protection provision.

8.1.1 Declarant shall for a period of twenty (20) years have the right to sell or otherwise convey a conservation or wetlands easement over any common area wetlands to any third party; provided, however, that such easement shall be used exclusively for enhancement of the quality of the wetland common areas; and provided further that such wetland enhancement shall be approved by the governmental agency, who at the time of enhancement has jurisdiction over the wetland enhancement proposal. Declarant's right shall exist regardless of whether Declarant owns any parcels at the time such enhancement is proposed. Provided, further, that the Association shall have the right to place a trail through the wetlands tract, but such right is contingent upon obtaining any necessary permits from the Army Corps of Engineers, the Division of State Lands, the Department of Environmental Quality, the City of Rockaway Beach or any other agency having jurisdiction over such wetland trail construction.

**8.2** Government Access. Declarant hereby grants to the City of Rockaway Beach, including its police and fire departments and other governmental agents and officials with jurisdiction, the nonexclusive right to enter upon the Common Area for the purpose of carrying out their official duties, including road, stormwater and utility maintenance.

**8.3** Declarant's Reserved Rights: Declarant reserves the right to maintain, alter and improve the Common Areas and Facilities during and beyond the period of these Covenants, together with the right to enter any portions of the Properties necessary to maintain, alter and improve said Common Area and Facilities. Declarant reserves to itself and its successors and assigns a nonexclusive perpetual easement for ingress and egress over, under, upon and above the Common Area and the right to grant easements for ingress and egress and utility service over, under, upon and above the Common Area including private roadways.

**8.4** Conveyance of Common Area: The Association may dedicate, sell, convey or transfer all or any part of its real property and the Common Area to any individual, public agency, authority, utility or other entity for such purposes and subject to such conditions as may be agreed to by the members or required by law, provided that such dedication, sale conveyance or transfer must have the assent, by vote or written consent, of two-thirds of the members; provided further, that so long as there are two classes of membership such action may be taken only with the assent (by vote or written consent) of two-thirds (2/3) of the voting power of each class of membership.

The grant of an easement by the Declarant shall not be considered a dedication, sale, conveyance or transfer for purposes of this provision as set forth in this paragraph or elsewhere in these Covenants.

**8.5** Indemnity and Hold Harmless: In consideration of the rights to enjoy the use of Association property, any Member, or Member lessee or occupant, for him or herself, spouse, family, guests, legal representatives, heirs and assigns, hereby releases, waives and discharges the LAKE LYTLE ESTATES Homeowners Association its directors, officers, members and employees, and the Declarant, from any and all liability, for any and all claims, loss or damage, and any claim, loss or damage resulting from bodily injury, death or property damage, due to or resulting from presence upon or in use of the Association property and Common Areas.

Members, occupants, spouses, family, guests, legal representatives, heirs and assigns, and any others who shall use the Association property and Common Areas agree to indemnify and hold harmless the LAKE LYTLE ESTATES Homeowners Association, its directors, officers and employees, and the Declarant, from any loss, liability, damages or cost, including attorney fees, that may incur from any bodily injury, death or property damage suffered by such persons caused by or resulting from presence upon or in use of the Association property and Common Areas.

Said Member, occupant or lessee, for him or herself, spouses, family, guests, legal representatives, heirs and assigns, shall assume full responsibility for the risk of bodily injury, death or property damage due to or resulting from presence upon or in use of the Association property and Common Areas, and from acts of God and acts of nature, and all acts, negligence or omissions of such person while in or upon or in use of the Association property and Common Areas. Members, occupants, lessees, spouses, family, guests, legal representatives, heirs and assigns, and others who shall use the Association property and Common Areas understand and agree they do so at their own risk, that such property and areas are unsupervised, and that they are responsible for monitoring and supervising the conduct, safety and use of Association property and Common Areas by themselves, their children, family members, and guests.

### IX. INSURANCE

9.1 Required Insurance: The Association shall obtain and maintain at all times as a common expense insurance policy or policies written by companies licensed to do business in Oregon which provides:

**9.1.1** Insurance against loss or damage by fire and other casualty covered by the standard extended endorsement in an amount as near as practicable to the full insurable replacement value (without deduction for depreciation) of the Common Areas and structures and improvements within the Common Areas. Notwithstanding the foregoing, fire insurance shall be required only if substantial or significant structures are built in the Common Areas.

**9.1.2** General comprehensive public liability insurance insuring the Associations, the Board of Directors, Declarant, officers, and all agents and employees of the Association and all owners and other person entitled to occupy the Common Areas against any liability to the public or to the owners and their guests, invitees, licensees, or tenants incident to the ownership or use of the Common Areas in an amount not less than One Million Dollars (\$1,000,000.00) or a higher amount deemed appropriate by the Association Board of Directors.

All such insurance shall be written in the name of the Association as trustee for each of the owners. It shall be the duty of the Board of Directors annually to conduct an insurance review to determine if the policy in force is adequate to meet the needs of the Association and to satisfy the requirements of this Section. Such insurance shall run to the benefit of the Association, the respective owners, and their respective mortgagees, as their interests may appear.

**9.2** Authorized Insurance Terms: The Board of Directors shall utilize every reasonable effort to secure a policy covering physical damage that will provide the following:

**9.2.1** That the insurer waives its right of subrogation of any claims against the directors, officers, the ACC, the individual owners, member, and their respective household members.

**9.2.2** That the policy cannot be canceled, invalidated, or suspended on account of the conduct of any director, officer, ACC, agent, or employee of the Association without a prior demand in writing delivered to the Association to cure the defect and the allowance of a reasonable time thereafter within which the defect may be cured.

9.2.3 That any "no other insurance" clause contained in this policy shall expressly exclude individual parcel owner's polices from its operations.

9.2.4 That the policy may not be canceled or substantially modified without at least, thirty (30) days' prior notice in writing to the Board of Directors.

9.2.5 An agreed value or amount endorsement and waiver of coinsurance.

**9.2.6** That the deductible amount per occurrence shall not exceed an amount to be set in the discretion of the Board of Directors.

9.2.7 Coverage of at least One Million Dollars (\$1,000,000) per occurrence.

**9.3 Contributions**: In no event shall the insurance coverage obtained and maintained by the Association hereunder be brought into contribution with insurance purchased by individual unit owners or their mortgagees.

**9.4 Cross Discretionary Endorsement**: All liability insurance shall contain a cross liability endorsement.

9.5 Other Discretionary Insurance: In addition to the insurance required herein above, the Board may obtain as a common expense:

9.5.1 Workmen's Compensation Insurance if and to the extent necessary to meet the requirements of law.

9.5.2 Fidelity bonds covering officers, directors, employees, and other persons who handle or are responsible for handling Association funds. Such bonds shall be in an amount approved by the Board of Directors and shall contain waivers of any defense based upon the exclusion of persons serving without compensation,

9.5.3 Such other insurance as the Board of Directors may determine to be necessary including officers' and directors' liability insurance.

9.6 Individual Insurance: By virtue of taking title to a parcel subject to the terms of this Declaration, each owner covenants and agrees with all owners and the Association that he or she shall carry an individual homeowner's policy. Each individual owner further covenants and agrees that in the event of a partial loss or damage and destruction resulting in less that total destruction, the individual unit owner shall proceed promptly to repair or reconstruct the damaged structure in a manner consistent with the original construction. In the event that the structure is totally destroyed and the individual owner determines not to rebuild or to reconstruct, the individual owner shall clear the parcel of all debris and return it to substantially the natural state in which it existed prior to the beginning of construction.

### X. ADMINISTRATION AND ENFORCEMENT OF THESE COVENANTS

10.1 Entry/Rules and Regulations: The Association may at all reasonable times enter upon any parcel for the purpose of performing its function under this Declaration. The Board of Directors may adopt and publish reasonable rules and regulations governing the use of the Common Area and Facilities and interpreting this Declaration and to establish penalties for the violation thereof.

**10.2** Agreed Compliance: By acceptance of a deed to a parcel, execution of a contract therefore, or any other means of acquisition of an ownership interest, whether or not it shall be so expressed in any such deed or other instrument, the owner covenants and agrees thereby, on behalf of himself or herself and his or her heirs, successors and assigns, to observe and comply with all terms of the Articles of Incorporation and the Bylaws of the LAKE LYTLE ESTATES Homeowners Association, and all rules and regulations duly promulgated by the Association, as they now exist and are hereafter amended.

**10.3 Rights of Enforcement**: The Association or any owner shall have the right to enforce by proceeding at law or in equity all restrictions, conditions, covenants, reservations, liens and charges now or hereafter imposed by the provisions of these Declaration. Failure by the Association or by an owner to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of the right to do so thereafter. The violators shall be responsible for all costs incurred in enforcing these Declarations, including reasonable attorney's fees, whether or not litigation is commenced, and if so, during any arbitration, trial or appeal, or in any proceeding in federal bankruptcy court or under state receivership or insolvency statutes. The Association may add any such cost due to the current or next annual assessment of the offending owners.

**10.4 Disclaimer of Liability**: The Association, it's Board of Directors, the Declarant, and the ACC, and any officers, agents or employees shall not be liable to any person for acts and omissions in administration and enforcement of the Declaration, unless such actions constitute recklessness or intentional disregard of the law.

10.5 Remedies: Remedies provided herein are in addition to, cumulative with, and are not in lieu of other remedies provided by law. There shall be, and there is hereby created and

declared to be, a conclusive presumption that any violation or breach or attempted violation or breach of the Covenants herein cannot be adequately remedied by an action at law or exclusively by recovery of damages.

**10.6** Liens Consensual: By virtue of taking title to a parcel subject to the terms of this Declaration, each owner covenants, agrees and consents to subject its parcel or parcels to the lien authority of the Association set forth herein.

### XI. AMENDMENT

The covenants and restrictions of this Declarations shall run with the and bind the land for a term of twenty (20) years from the date this Declaration is recorded, after which time said covenants shall be automatically extended. Otherwise this Declaration may be amended until all parcels have homes constructed upon them. Otherwise this Declaration may be amended during the initial 20-year period and by an instrument which has received the signatures of at least 90 percent of the votes eligible to be cast. The Declaration may be amended at any time thereafter by an instrument which has received the signatures of at least 75 percent of the votes eligible to be cast. This Declaration may be amended during the Development Period by an instrument signed by both Declarant and the owners of at least 51 percent of the parcels, including Declarant's. The provisions expressly referring to Declarant may not be amended without Declarant's approval.

Not withstanding the amendment provisions of this paragraph, Declarant reserves the exclusive right to amend this Declaration by annexation of contiguous properties in the form of affidavit recorded with the Tillamook County Clerk, subject to the requirement that such contiguous properties are bound by and to the terms and conditions of this Declaration.

12.1 Binding Effect: All present and future owners or occupants of Parcels shall be subject to and shall comply with the provisions of this Declaration as they may be amended from time to time. The acceptance of a deed or conveyance or the entering into occupancy of any Parcel shall constitute an agreement that the provisions of this Declaration are accepted and ratified by such owner or occupant, and running with the land and shall bind any person having at any time any interest or estate in such Parcel, as though such provisions were recited and stipulated at length in each and every deed and conveyance or lease thereof. Failure to comply with this Declaration shall be grounds for an action to recover sums due for damages or injunctive relief, or both, maintainable by the committee or by any aggrieved owner.

**12.2** Enforcement: Should any Parcel Owner violate or attempt to violate any of the provisions of this Declaration, the Declarant or any other Owner of Parcels within the Property, at its or their option, shall have the full power and authority, but not the requirement, to prosecute any proceedings at law or in equity against the Owner violating or attempting to violate any of the provisions of this Declaration, either to prevent the doing of such or to recover damages sustained by reason of such violation. Failure by any Owner to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of the right to do so thereafter.

**12.3 Venue**: Any court action to assert any rights under this Agreement shall be brought in Tillamook County Court.

12.4 Choice of Law: The law of the State of Oregon shall govern the terms and interpretation of this Agreement.

12.5 Severability: Invalidation of any of these covenants or restrictions by judgment or court order shall in no way affect any other provisions which shall remain in full force and effect.

**12.6** Notice: Any notice required to be sent to any Owner under the provisions of this Declaration shall be deemed to have been properly sent when mailed, postage prepaid, to the last know address of the person who appears as the Owner of Record as the time of such mailing.

IN WITNESS WHEREOF, the undersigned have caused this Declaration to be

executed this \_\_\_\_\_ day of \_\_\_\_\_ 2007.

# DECLARANT: LAKE LYTLE ESTATES, LLC

By: \_\_\_\_\_

STATE OF OREGON ) ):ss County of \_\_\_\_\_ ) Personally appeared before me, \_\_\_\_\_, to me known to be the

Declarant of LAKE LYTLE ESTATES, LLC and acknowledged that he/she signed the same as his/her free and voluntary act and deed for the uses and purposes therein mentioned.

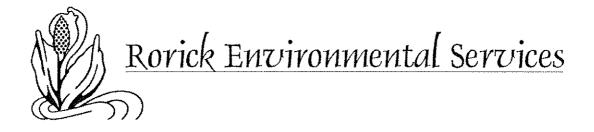
Witness my hand and official seal hereto affixed this \_\_\_\_ day of \_\_\_\_\_,

2007.

NOTARY PUBLIC in and for the State of Oregon

My Commission Expires:

APPENDIX D



# Wetland Delineation and Determination Lake Lytle Wetland Delineation Rockaway Beach, Oregon Tillamook County

Prepared for:

Troy Johns 14801 NE 13th Circle Vancouver, WA 98684

Submitted by:

Nancy Rorick Rorick Environmental Services 37552 SE Rachael Drive Sandy, OR 97055 503-668-8660 nrorick@verizon.net

July 2006

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Project	Lake Lytle Wetland Delineation	
Property owner	Troy Johns	
	14801 NE 13th Circle	
	Vancouver, WA 98684	
County	Tillamook	
Tax Lot Map	Tax Map 2N 10, Tax Lot 5201	
Legal Description	T2N, R10W, SE ¼ of Sec. 29	
Latitude / Longitude	45° 37.499,0' N, 123° 55.991,5' W	
Zoning	Residential	
Study area size	24.06 acres	
USGS Topographic Map	Garibaldi (1985) and Nehalem (1985)	
Topography	Site slopes gently to the west.	
Elevation	25 to 85 feet (NGVD)	
Drainage basin	Lake Lytle	
Nearest water	Ephemeral streams on site and Lake Lytle.	
Land form	Marine terrace.	
Mapped soil types	17B – Chitwood-Hebo Complex, 0-5% Slopes (Hebo is a	
	hydric soil)	
	59B – Chitwood-Knappa silt loams, 0-7% Slopes (the	
	Chitwood and Knappa are not hydric soils)	
NWI map	Garibaldi, Oregon 1985 and Nehalem, Oregon1985	
LWI maps	Western portion of project site is mapped as wetland.	
Hydrogeomorphic	slope/flats – 7.59 acres	
classification of site	riverine flow through – 0.49 acres	
wetlands	small depressional wetlands – 0.48 acres	
Cowardin classification	PFOC - palustrine forested seasonally flooded	
of site wetlands		
Proposed land use	Housing development	
Current land use	Open space	
Adjacent land use	Residential to north, open space to east, south and west.	

# Site Data Sheet

# Wetland Delineation Summary

Determination:	The consultants delineated 8.56 acres of jurisdictional wetlands within the study area boundary.
Hydrology:	The wetlands are supported by a seasonally high water table, inflow from ephemeral streams, runoff from adjacent uplands and direct precipitation.
Soils:	The wetlands soils are low chroma silt loams with mottles.
Vegetation:	The wetlands are forested. The dominant species are red alder, Sitka spruce, skunk cabbage, lady fern, deer fern, slough sedge, and salmonberry.
Method:	Routine, on-site method as described in the U.S. Army Corps of Engineers 1987 manual. Site work June 28, 2005 through July 3, 2005.
Project Staff:	Nancy Rorick, Rorick Environmental Services, 503-668-8660 Laura Miller, 503-948-7295 Loverna Wilson, Environmental Consultant, 541-758-3403 Dennis O'Connor, 503-617-6553

# Introduction

Rorick Environmental Services (RES) delineated 8.56 acres of jurisdictional wetland on property owned by Troy Johns. The 24.06-acre project site is located on the east edge of Lake Lytle and south of NE Smith Street in Rockaway Beach, Oregon (figures 1, 2 and 3). Mr. Johns is proposing to develop the site for residential use.

# **Project Description**

The project is located on gently sloping land between Lake Lytle to the west and the Coast Range to the east. The Local Wetland Inventory (Brophy and Wilson 2000) and National Wetland Inventory (USFWS wetland mapper 2006) maps show that the wetlands on the site are part of a large wetland complex associated with Lake Lytle (figures 4 and 5). The City of Rockaway Beach's comprehensive plan designates these wetlands as Special Wetland Areas. The USFWS has classified the site wetlands as (PFOC) Palustrine Forested Seasonally Flooded (2006 wetlands mapper).

The elevation on the project site ranges from 25 to 85 feet NGVD. The site slopes at 15% on the east side of the site and flattens out to a 2% slope on the west side. A small unnamed ephemeral drainage crosses the site from east to west. This drainage receives runoff from the Coast Range to the east.

The property is zoned residential. The surrounding land use consists of forested open space to the east and south, Lake Lytle to the west, and a residential subdivision to the north (figure 6).

Figure 7 shows the two soil units mapped on the site (NRCS draft map). The Chitwood-Hebo Complex located on the west side of the site is a combination of Chitwood and Hebo soils, of which the Hebo is a listed as a hydric soil (NRCS 2000). Neither the Chitwood or Knappa soils in the Chitwood-Knappa complex mapped on the east side of the site are hydric, but the unit does contain inclusions of the hydric Hebo Series. The soil characteristics are described in Tables 1 and 2.

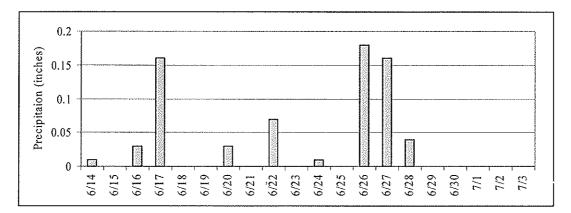
Map Symbol	Soil	Hydric Soils List
17B	Chitwood-Hebo Complex, 0-5% slopes	Chitwood - No
		Hebo - Yes
59B	Chitwood-Knappa silt loams, 0-7% slopes	Chitwood – No
		Knappa – No
		Hebo - Yes

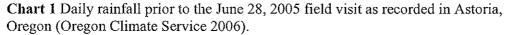
Table 1 Mapped soils hydric soils classification (NRCS draft Hydric Soils List 2000).

Soil	Drainage	Taxonomy	Typical Profile
Chitwood	somewhat poorly drained	Aquandic Dystrudepts	<ul> <li>0-7 in. 10YR 3/2 silt loam</li> <li>7-11 in. 10YR 3/2 silt loam</li> <li>11-19 in. 10YR 3/3 silty clay loam with few fine faint iron masses</li> </ul>
Hebo	poorly drained	Typic Humaquepts	<ul> <li>0-4 in. 10YR 3/1 silty clay loam with iron-manganese masses</li> <li>4-10 in. 10YR 3/1 silty clay with iron- manganese masses</li> <li>10-18 in. 5Y 4/1 clay</li> </ul>
Кпарра	well drained	Andic Dystrudepts	0-9 in. 10YR 2/2 silt loam 9-20 in. 10YR2/2 silt loam

Table 2 Soil	Series	characteristics	(NRCS	2006 and	draft map).

The total rainfall recorded in Astoria, Oregon during the two weeks prior to the start of fieldwork on June 28, 2005 was 0.69 inches. During the three months prior to the field work, rainfall was above normal in April and May; and slightly below normal in June (Table 3).





Month	Total Rainfall for Astoria (inches)	Departure from normal (inches)
April	8.39	3.39
May	5.46	2.18
June	1.67	-0.90

Table 3 2005 monthly rainfall data for Astoria, Oregon (Oregon Climate Service 2006).

# Wetland Definitions

The wetlands in this report were delineated according to the methods described in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987). The Corps (Federal Register 1985) and the Environmental Protection Agency (Federal Register 1980) have jointly defined wetlands as: "Those areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

The 1987 Manual provides guidelines for delineating wetlands based on soils, hydrology and vegetation. An area will be classified as a jurisdictional wetland if it meets the three requirements described below:

**Vegetation:** Greater than 50 percent of the dominant plant species must be obligate wetland plants (OBL), facultative wetland plants (FACW), or facultative plants (FAC). The probability that OBL plants will occur in wetlands is 99%, FACW plants have a 67-99% probability, and FAC plants a 33-67% probability. Plants that usually occur in drier areas are facultative upland plants (FACU) and obligate upland plants (UPL). Species that are not listed (NL) are assumed to be upland plants.

**Soils:** Wetland soils have developed physical characteristics (redoximorphic features) as the result of oxygen-poor conditions due to prolonged wetness. In oxygen-deficient environments, iron is reduced to a mobile form. The reduced iron oxidizes when it migrates into an oxidizing zone such as a root trace or fracture. This results in iron depleted portions of the soil that have a low chroma or gray color and iron rich portions of the soils (mottles) that have a high chroma or reddish orange color. Live oxidized root channels occur when iron oxidizes along a live root trace. Wetland soils are also characterized by soil horizons of partially decomposed organic material (histic epipedons). The organic material accumulates in these soils, called Histosols, because the oxygen-poor environment inhibits the decay of organic matter.

**Hydrology:** An area may have wetland hydrology if it is saturated or inundated for 5% to 12.5% of the growing season. An area does have wetland hydrology if it is saturated for more than 12.5% of the growing season. Wetland hydrology is commonly determined by digging a 16-inch-deep soil pit to observe whether the root zone, or upper 12 inches of the soil, is saturated. Depth to saturation is determined by observing the rise of water within the soil pit. Signs of inundation, such as silt deposits on leaves, flood debris, or live oxidized root channels can

also indicate wetland hydrology. Gauging station records and aerial photographs are also used to determine inundation history.

# Methods

The preliminary site review entailed analyzing soil maps (NRCS draft soils map), the topographic map (USGS 1985), aerial photographs, and the National Wetland Inventory map available online from the USFWS.

RES evaluated the wetlands on the project site according to guidelines in the COE 1987 Manual (Environmental Laboratory 1987) and completed data sheets (Appendix A) that describe the vegetation, soils and hydrology at thirteen sample point locations (figure 8). The sample points were chosen to document differences between upland and wetland conditions and to determine wetland boundaries.

### Soils

RES analyzed soil collected from 16-inch-deep pits for texture, color, mottles, and structure. The soil colors were determined using the Earth Colors Soil Color Book (Color Communication Inc. 1997).

### Hydrology

RES determined the hydrology at each data point by observing the depth to free water in the soil pits, examining the sides of soil pit walls for seepage, and examining the soils for signs of prolonged wetness. Due to the dry summer conditions, the consultants relied on indirect indicators of wetland hydrology such as drainage patterns, water marks, and live oxidized root channels.

### Vegetation

RES estimated vegetation dominance and cover visually at each sample point, identified the vegetation, and assigned the plants an indicator status from national (Reed 1988) and regional (Reed et al. 1993) lists.

### Wetland boundary

HLB and Associates, Inc. surveyed the wetland boundary.

# **Plant List**

Table 4 is a list of some of the plants that were observed on the site.

Common Name	Scientific Name	Indicator Status
common foxglove	Digitalis purpurea	FACU
Cooley's hedge nettle	Stachys cooleyae	FACW
creeping buttercup	Ranunculus repens	FACW
deer fern	Blechnum spicant	FAC+
evergreen huckleberry	Vaccinium ovatum	NL

Table 4 List of plants observed on the project site.

Common Name	Scientific Name	Indicator Status
false lily of the valley	Maianthemum dilatatum	FAC
forget me not	Myosotis laxa	OBL
Himalayan blackberry	Rubus discolor	FACU
inside-out flower	Vancouveria hexandra	NL
lady fern	Athyrium filix-femina	FAC
Pacific ninebark	Physocarpus capitatus	FAC+
red alder	Alnus rubra	FAC
red elderberry	Sambucus racemosa	FACU
red huckleberry	Vaccinium parvifolium	FACU
salal	Gaultheria shallon	FACU
salmonberry	Rubus spectabilis	FAC+
Siberian spring beauty	Claytonia sibirica FACW	FACW
Sitka spruce	Picea sitchensis	FAC
skunk cabbage	Lysichiton americanum	OBL
slough sedge	Carex obnupta	OBL
soft rush	Juncus effusus	FACW+
sword fern	Polystichum munitum	FACU
water parsley	Oenanthe sarmentosa	OBL
western hemlock	Tsuga heterophylla	FACU-

Lake Lytle Wetland Delineation, Rockaway Beach, Oregon Rorick Environmental Services, 503-668-8660

# **Results and Discussion**

RES delineated 8.56 acres of jurisdictional wetland within the study area boundary (figure 8). The wetlands consist of 13 small depressional wetlands, a 0.49-acre riverine-flow-through wetland, and a 7.59-acre slope/flats wetland. The depressional wetlands range in size from 27 to 10,698 square feet. These wetlands are located in shallow basins that receive runoff from adjacent uplands, direct precipitation and have a seasonally high water table. The riverine-flow-through wetland (wetland H on figure 8) is supported by ephemeral stream flow, runoff from the adjacent uplands, and a seasonally high water table. The slope / flat wetland (wetland A on figure 8) connects to Lake Lytle. This wetland receives water from seasonal streams, a seasonal high water table, direct precipitation and runoff from adjacent uplands. This wetland is classified as slope/flats because it is partially supported by groundwater and is located in a low broad area at the base of a slope (Adamus 2001).

The uplands on the project site are forested. The wetlands belong to the PFOC (palustrine forested seasonally flooded) Cowardin class. The dominant plant species growing in the wetlands are red alder, Sitka spruce, skunk cabbage, lady fern, deer fern, slough sedge, and salmonberry. The dominant vegetation in the uplands is red alder, western hemlock, salmonberry, red elderberry, sword fern, red huckleberry, and evergreen huckleberry.

The textures of the site soils are silty clay, silt loam and loam, with silt loam as the dominant texture. At some of the sample locations (SP6, SP7, SP9 and SP10) the

consultants encountered shallow bedrock consisting of highly weathered shale. The upland soils were colored 10YR 3/2 to 7.5YR 3/3. The wetland soils were colored 10YR 2/1 with mottles and 7.5YR 3/1 with mottles.

RES mapped the wetland using changes in vegetation, soil characteristics and topography as indicators of the boundary. Typically, a change in vegetation from sword fern, salal, and huckleberry to slough sedge and skunk cabbage marked the wetland boundary. The consultants frequently check soil colors in determining the wetland boundary. The boundary was also characterized by slight changes in topography. For example, a pronounced change in topography, to wit, its streamside location, marked the boundary of wetland H.

# **DSL Review**

This report documents the investigation, best professional judgment and conclusions of the investigators. It should be considered a Preliminary Jurisdictional Determination and used at your own risk until it has been reviewed and approved in writing by the Oregon Division of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

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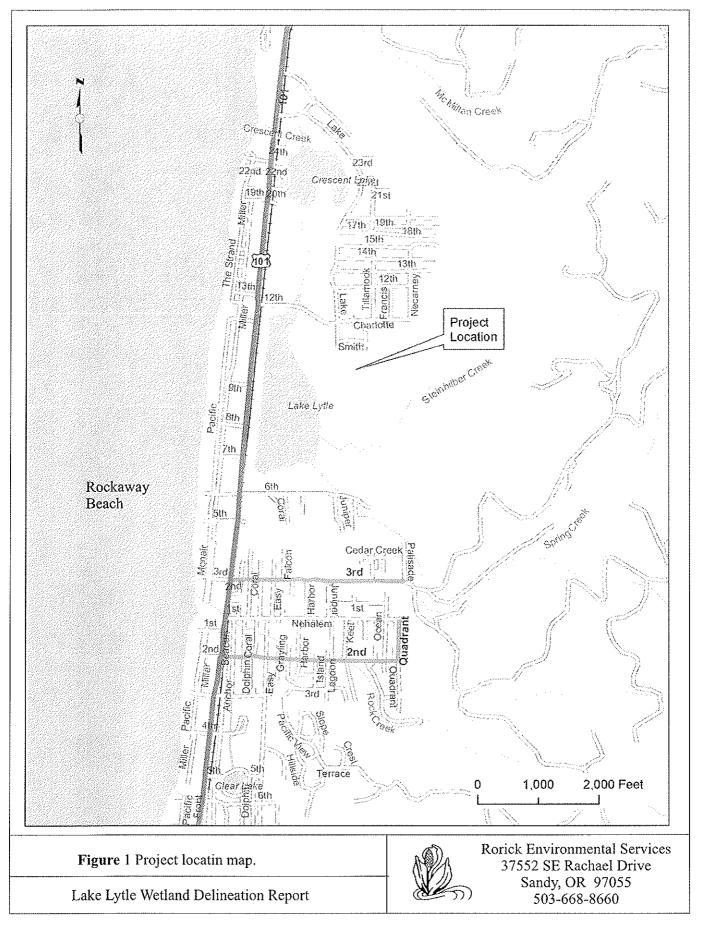
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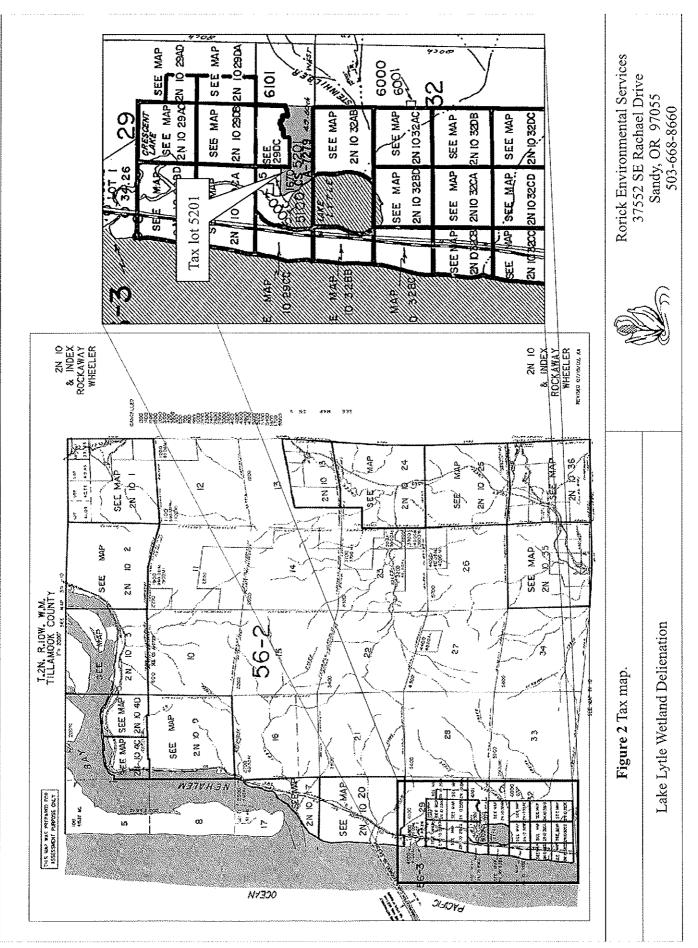
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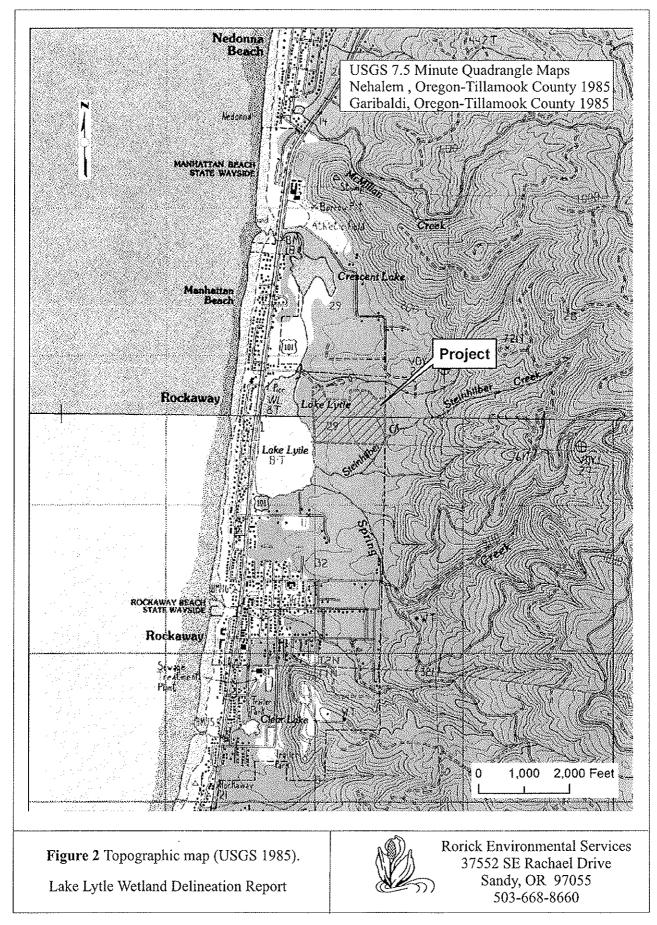
United States Fish and Wildlife Service, 2006, National Wetland Inventory, Nehalem and Garibaldi Quadrangles available on line from Wetland Mapper at: http://www.nwi.fws.gov/

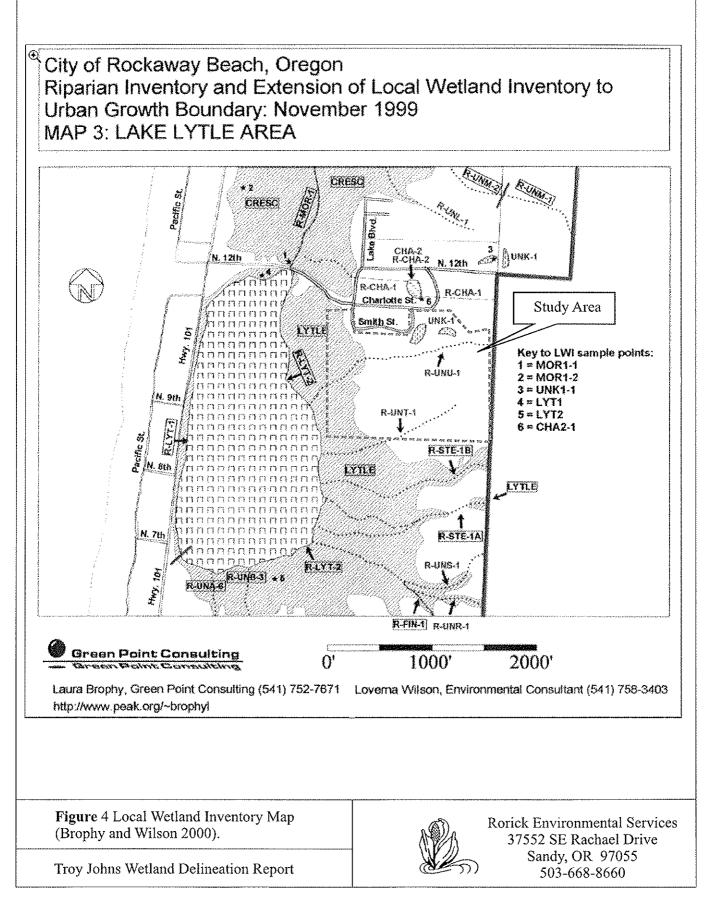
United States Geological Survey, 1985, Garibaldi Quadrangle, Oregon-Tillamook County, 7.5-Minute Series (Topographic), map scale 1:24,000.

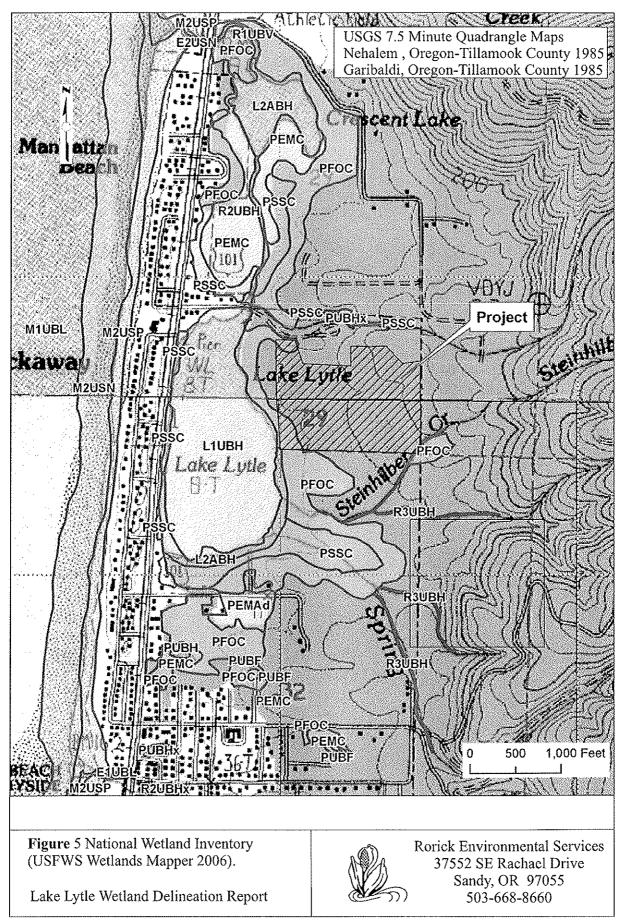
United States Geological Survey, 1985, Nehalem Quadrangle, Oregon-Tillamook County, 7.5-Minute Series (Topographic), map scale 1:24,000.

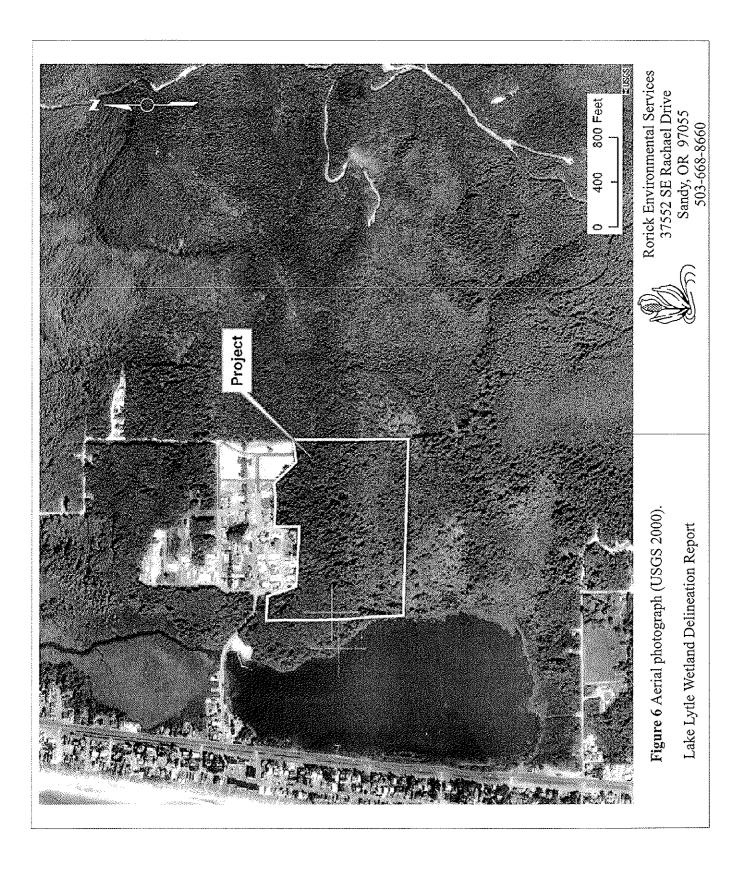


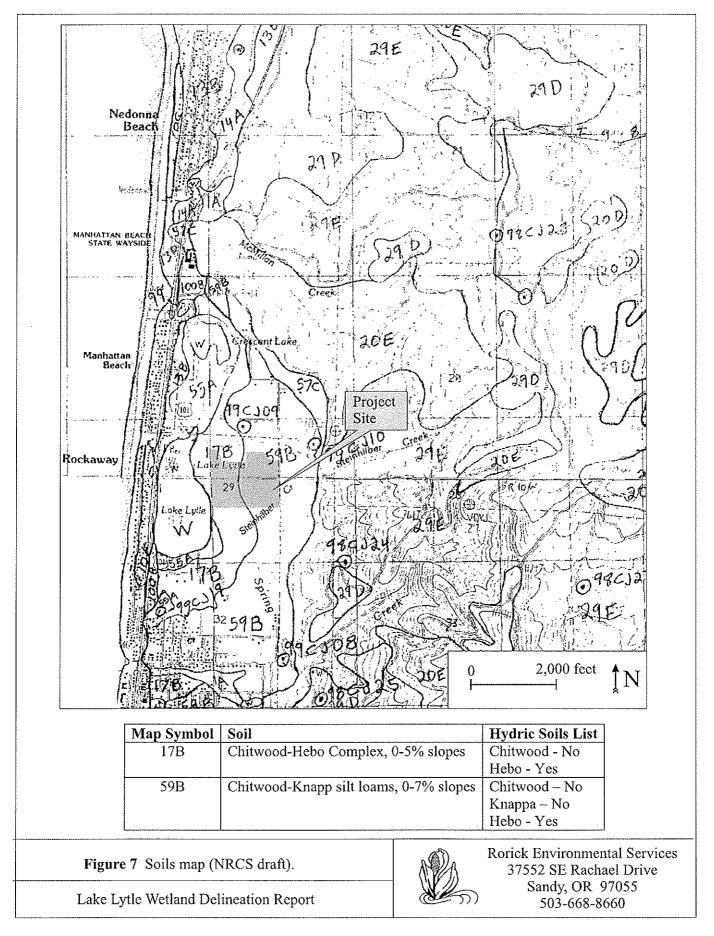


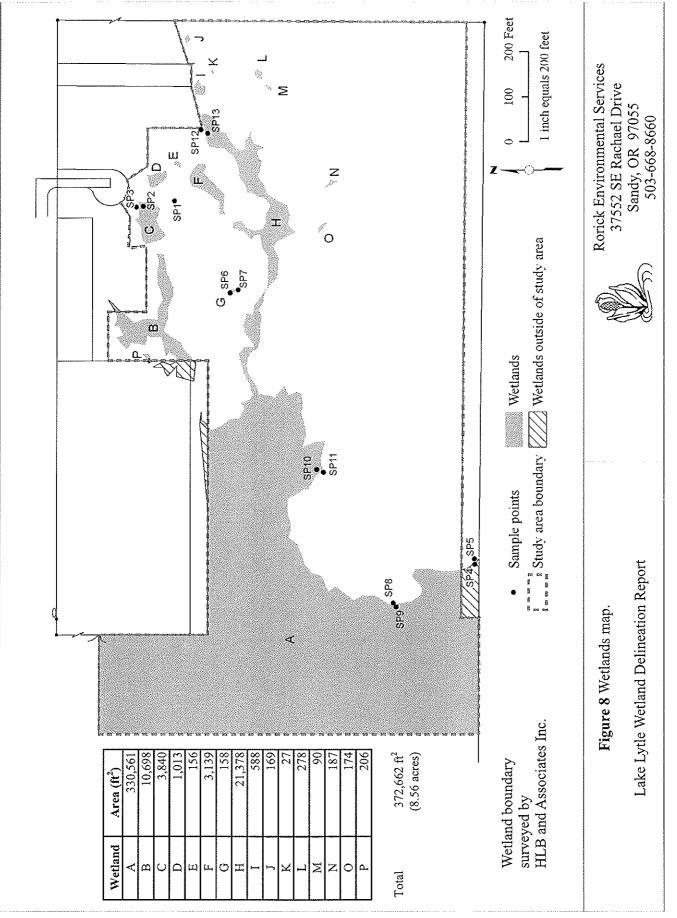












Project Location Applicant	Rockaway Beach Troy Johns		ounty, Sta , R, S	ite	Tillamook, Oregor T2N, R10W, SE ½			
Transect / Plot	SP1		, IC, S ate & Tin	۱e	6/28/05	01 300. 29		
Recent Weather	Sunny and warm		lant Comr		coastal woodland			
Plot Location	Northern portion of the							
Has the soil, veget	ation or hydrology been si		listurbed?	No				
		•	VEGE	TATION				
Trees		% Cover	80		Herbs		% Cover	85
Species	Status	Percent	Dom	Species		Status	Percent	Dom
Picea sitchensis	FAC	40			ton americanum	OBL	25	
Alnus rubra	FACFAC	40	· · · · · · · · · · · · · · · · · · ·		the sarmentosa	OBL	40	v
Athus rubru	FAC		•		eria shallon	FACU	5	•
				Myosot		OBL	10	
					s cooleyae	FACW	5	
Sapling / Shrub		% Cover	50	Joinchys	Cooleyae		5	
	EACU		50	4				
Sambucus racemos		10	·····					
Rubus spectabilis	FAC	40	• 		• • • • • • • •			
·····				<b></b>				····
Percent of dominat	nt species that are OBL, F	ACW, FAC:	1	00%				
Criteria met?	Yes							
			SC	HLS				
Man Huit Manad	Chitmand Vnound silt	1			-1			:
Map Unit Name:	Chitwood-Knappa silt					hat poorly draine		inea
Taxonomy:	Aquandic Dystrudepts	and Andic D	ystrudept	<u>s</u>	On hydric soil	s list?	No	
Depth Horiz	zon Matrix Color	Redo	x Concent	trations / I	Depletions*	Texture	Struct	ture
0-8 in.	7.5YR 3/3			none		silt loam	fine gra	nular
8-16 in.	7.5YR 3/2			none		silt loam	fine gra	nular
	·······	ł	Hydric Soi	il Indicato	)TS			
ŶŤ	istosol	•	ijuno so	n maiour		/ Nodules (w/in	2"~~ 2)	
******************						```		
	istic Epipedon			······································		cs near surface (		
	ulfidic Odor	•.• >				(in sandy soils)		
	educing Conditions (tests	positive)				list and profile	matches	
	leyed				Other:			
	edox features within 10 in							
Criteria met?	<u>No</u> *abundan	ice / size / co	ntrast / co	lor / locat	tion (matrix or pores	)		
			HYDR	OLOGY				
Record	led data available		Aerial	Photogra	phs	Strea	am gauge	
	orded data available		Other				BanBa	
Depth of Inundatio	_	Depth to free		turation	star.	Time		
		•			dry	Time		
Depth to Seepage		Depth to free	water (sa	uration)		Time		
	Inundated					root channels		
	Saturated w/in 12 inches					ined leaves		
	Water marks					survey data		
	Drift lines					eutral Test		
	Sediment patterns				Other			
	Drainage patterns							
Criteria met?	No Also, no i	indirect indic	ators					
_								
Wetland?	No Staff				nd Dennis O'Connor			
Comments:	Does not meet the soils o	r hydrology	criteria fo	r jurisdict	ional wetlands			

Trees Species	Rockaway Beach Troy Johns SP2 Sunny and warm end of cull de sac in sku sation or hydrology been si Status	T, Da Pl Ink cabbage	isturbed? VEGE1 20 Dom	ne nunity base of dra	receives runoff from Herbs	of Sec. 29 E road. Status	% Cover Percent	105 Dom
Tsuga heterophyll	a FACU-	20	<b>√</b>		on americanum chum munitum	OBL FACU	<u>100</u> 5	
Sapling / Shrub		% Cover	85					
Physocarpus capi		5						
Gaultheria shallo		<u> </u>						
Vaccinium ovatun	INL	<u> </u>		<b> </b>		······		
·								
Map Unit Name: Taxonomy:	Chitwood-Knappa silt l Aquandic Dystrudepts :		slopes	OILS _ Drainag s On	e class: <u>some</u> hydric soils list?	what poorly dra	ined & well d No	rained
Depth Hori		Redox	Concent	rations / I	Depletions*	Texture	Struct	ure
0-4 in.	10YR 2/1			none		peat	mass	
4-9 in. 9-16 in.	7.5YR 2.5/2 10YR 2/2		******	none none		silt loam silt loam	mass mass	******
	nches, soil has high organi	c content and			a developing histoso		111033	
		F	lydric Soi	il Indicato	rs		······································	
F S	listosol listic Epipedon ulfidic Odor Leducing Conditions (tests Heyed Ledox features within 10 in	ches			High organic Organic pan Hydric soils Other: Lo	/ Nodules (w/in cs near surface ( (in sandy soils) list and profile w chroma matri	(sandy soils) matches	
Criteria met?	Yes *abundan	ce / size / coi			ion (matrix or pores)	)		
<b>D</b> .	dad data ang 1-1-1-			OLOGY	a h a	<u>0</u>		
	ded data available corded data available		_ Aerial Other	Photogra	pns	Strea	am gauge	
Depth of Inundation Depth to Seepage	on I	Depth to free Depth to free	– water (sa			Time		
	Inundated					root channels		
	Saturated w/in 12 inches Water marks					ined leaves		
	Drift lines				FAC – Ne	survey data utral Test		
	Sediment patterns				Other			
~	Drainage patterns							
Criteria met?	Yes Water dise	charges to w	etland fro	m drainpi	pe.			
Wetland? Comments:	Staff:		Nancy	Rorick an	d Dennis O'Connor			

Project Location	Rockaway Beach	Co	ounty, State	Tillar	nook, Oregon			
Applicant	Troy Johns		R, S		R10W, SE 1/4 of Se	c. 29		
Transect / Plot	SP3		ate & Time	6/29/0				
Recent Weather	Sunny and warm		ant Commur	uity Uplan	nd shrub			
Plot Location	Upland adjacent to SP2						·	
Has the soil, vegeta	ation or hydrology been sig			Yes, fill mat	terial from road emb	ankment.		
		5	VEGETA					
Trees		% Cover	15		erbs		% Cover	25
Species	Status	Percent		Species		Status	Percent	Dom
Alnus rubra	· FAC	10		Digitalis purpi	NYPA	FACU	5	
Tsuga heterophylla		5		Ranunculus re		FACW	20	$\checkmark$
<u></u>			i		<i>p</i> 0110			
						·		
Sapling / Shrub		% Cover	80		······································			
Rubus spectabilis	FAC+		✓					
Vaccinium ovatum		20	✓					
Gaultheria shallon		20	✓					
Rubus discolor	FACU	10						
Percent of dominar	nt species that are OBL, FA	ACW, FAC:	25					
Criteria met?	No	,						
			SOIL	c				
N.C. T.T. '4 N.T	Oliver d Res 11/1	0.70/			,		. 10 11	
Map Unit Name:	Chitwood-Knappa silt h			Drainage cla			rained & well	drained
Taxonomy:	Aquandic Dystrudepts a				soils list?		10	
Depth Horiz		Redox Conce	ntrations / D	epletions*	Text		Structure	
0-16 in.	10YR 4/3		no	ne		dy loam	massi	ive
					wit	n gravel		
Noto: Soil is fill m	aterial for roadside.							
Note. Son is ini in	aterial for foatisfite.	1.	T					
		1 <del>.</del>	lydric Soil Ii	ndicators				
	istosol				Concretions / Nod			
	istic Epipedon				High organics near			
	alfidic Odor				Organic pan (in sa			
	educing Conditions (tests	positive)			Hydric soils list ar	d profile	matches	
	leyed				Other:			
	edox features within 10 inc							
Criteria met?	No *abundanc	ce / size / coi	ntrast / color	/location (m	atrix or pores)			
			HYDROL	OGY				
Record	led data available		Aerial Ph	otographs		Strea	ım gauge	
	orded data available		 Other	DF			8 <u>8</u>	
Depth of Inundation	~~~~~	Depth to free		ation	Tii	no		
Depth to Seepage		Depth to free			Ti	-		
Deptil to Scopage		reptil to nee	water (satur			-		
	Inundated		a		Oxidized root cl			
	Saturated w/in 12 inches				Water-stained le			
	Water marks				Local soil surve			
	Drift lines				FAC – Neutral 7	lest		
***************************************	Sediment patterns				Other			
	Drainage patterns							
Criteria met?	No							
			Nancy Ro	rick and Denr	uis O'Connor			

Project Location	Rockaway Beach	C	ounty, Sta	ate		k, Oregon		
Applicant	Troy Johns		, R, S			)W, SE ¼ of Sec. 29		
Transect / Plot	SP4		ate & Tin		6/29/05			
Recent Weather	Sunny and warm		lant Comr	nunity	_coastal w	oodland		
Plot Location	South boundary of site,							
Has the soil, vegeta	tion or hydrology been si	gnificantly d	listurbed?	No				
			VEGE	FATION				
Trees		% Cover	60		Herbs		% Cover	10
Species	Status	Percent	Dom	Specie	s	Status	Percent	Dom
Alnus rubra	FAC	50	$\checkmark$	-0	um spicant	FAC+	5	
Tsuga heterophylla	FACU-	10			um filix-fem		5	
				Juncus	s effusus	FACW-	+ T	
				Clayto	nia sibirica	FACW	Т	
<u> </u>	<u></u>	0/ 0	75					
Sapling / Shrub	FAC+	<u>% Cover</u> 30	75 ✓	┨────				
Rubus spectabilis	*******							
Sambucus racemos	a FACU	45	¥					
	×							
				-				
n c s								
Criteria met?	t species that are OBL, F. Yes	ACW, PAC.		67	····			
			50	MLS				
Map Unit Name:	Chitwood-Hebo Compl				ge class:	somewhat poorly dr		drained
Taxonomy: <u>Ac</u>	uandic Dystrudepts & Ty	ypic Humaqu	iepts	On hyo	dric soils lis	t? Chitwood - N	o, Hebo-Yes	
Depth Horiz	on Matrix Color	Redox Cor	ncentration	ns / Depl	etions*	Texture	Structure	
0-5 in.	7.5YR 2.5/2		none (	high org	anics)	silty clay	fine gra	nular
5-16 in.	10YR 4/2 to 2/2	7.5	YR 5/8 co	ommon, l	fine, distinc	t loam	coarse a	
							bloc	ky
		F	Hydric So	il Indicat	ors			
Hi	stosol				Co	ncretions / Nodules (v	v/in 3";>2 mm)	
Hi	stic Epipedon					gh organics near surfa		
	lfidic Odor					ganic pan (in sandy so		
	ducing Conditions (tests	positive)				dric soils list and prof		
	eyed	• /		<u></u>		her:		
	dox features within 10 in	ches						
Criteria met?		ce / size / co	ntrast / co	olor / loca	tion (matrix	a or pores)		
			HYDR	OLOGY				
Record	ed data available		Aerial	Photogra	aphs	S	tream gauge	
	orded data available		Other			\		
Depth of Inundation	—	Depth to free		turation		dry Time		
Depth to Seepage		Depth to free Depth to free				Time		
	Inundated					Oxidized root channels		
	Saturated w/in 12 inches				*********	Water-stained leaves	0	
	Water marks					Local soil survey data		
	Drift lines					FAC – Neutral Test		
	Sediment patterns					Other		
	Drainage patterns							
Criteria met?		on delineatio	n					
			**					
Wetland?	Yes Staff:	:	Nancy	Rorick, I	Loverna Wi	lson, and Dennis O'Co	onnor	
Comments:								

Project Location	Rockaway Beach		ounty, State	e Tilla	amook, Oregor	1		
Applicant	Troy Johns	Τ,	R, S	T2N	I, R10W, SE ¼	of Sec. 29		
Transect / Plot	SP5	Da	ate & Time					
Recent Weather	Sunny and warm		ant Commu	inity coas	stal woodland			
Plot Location	West boundary of site,							
Has the soil, vegeta	tion or hydrology been sig	gnificantly di	isturbed?	No				
			VEGETA	ATION				
Trees	······································	% Cover	60		erbs		% Cover	10
Species	Status	Percent		Species		Status	Percent	Dom
Alnus rubra	FAC	50		Blechnum spi		FAC+	5	
				Carex obnup		OBL	5	
				Claytonia sib		FACW	<u> </u>	
				Juncus effusu		FACW+	<u> </u>	
<u>a 11 / 61 1</u>				Athyrium filio	x-jemina	FAC	<u>T</u>	
Sapling / Shrub		% Cover	80					
Rubus discolor	FACU	60	<u> </u>					
Sambucus racemos	a FACU	20						
		ACIUL PAC.	I	2				
	t species that are OBL, FA	ACW, FAC:	33	3				
Criteria met?	No							
			SOIL	C				
	Chitwood-Hebo Compl		pes Drain	nage class:		what poorly dra		/ drained
Map Unit Name: Taxonomy: <u>A</u>	<u>Chitwood-Hebo Compl</u> quandic Dystrudepts & Ty		pes Drain			what poorly dra Chitwood - No, 1		/ drained
	quandic Dystrudepts & Ty		opes Drain epts (	nage class: On hydric sol				/ drained
Taxonomy: A	quandic Dystrudepts & Ty	pic Humaqu	opes Drain epts ( ntrations / I	nage class: On hydric sol		Chitwood - No, I	Hebo-Yes	angular
Taxonomy: <u>Ac</u> Depth Horiz	quandic Dystrudepts & Ty on Matrix Color F	pic Humaqu Redox Conce	opes Drain epts ( ntrations / I nc	nage class: On hydric soi Depletions*	ils list?	Chitwood - No, Texture	Hebo-Yes Structure fine, sub-	angular ky
Taxonomy:   Addition     Depth   Horiz     0-4 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2	pic Humaqu Redox Conce 7.5	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few	nage class: On hydric so Depletions* one v, fine and fa	ils list?	Chitwood - No, Texture silt loam	Hebo-Yes Structure fine, sub- bloc	angular ky
Taxonomy:   Ad     Depth   Horiz     0-4 in.     4-16 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3	pic Humaqu Redox Conce 7.5	opes Drain epts ( ntrations / I nc	nage class: On hydric so Depletions* one v, fine and fa	ils list?	Chitwood - No, Texture silt loam loam	Hebo-Yes Structure fine, sub- bloc fine angula	angular ky
Taxonomy: <u>A</u> Depth Horiz 0-4 in. 4-16 in. Hi	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol	pic Humaqu Redox Conce 7.5	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few	nage class: On hydric so Depletions* one v, fine and fa	ils list?	Chitwood - No, Texture silt loam loam	Hebo-Yes Structure fine, sub- bloc fine angula	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.       Hi         4-16 in.       Hi         Hi       Hi	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon	pic Humaqu Redox Conce 7.5	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few	nage class: On hydric so Depletions* one v, fine and fa	ils list? int Concretions High organi	Chitwood - No, Texture silt loam loam	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils)	angular ky
Taxonomy:     Ad       Depth     Horiz       0-4 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon ilfidic Odor	p <u>ic Humaqu</u> Redox Conce 7.5 H	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few	nage class: On hydric so Depletions* one v, fine and fa	ils list? int Concretions High organi Organic pan	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils)	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils) )	angular ky
Taxonomy:     Ad       Depth     Horiz       0-4 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon ilfidic Odor educing Conditions (tests p	p <u>ic Humaqu</u> Redox Conce 7.5 H	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few	nage class: On hydric so Depletions* one v, fine and fa	ils list? int Concretions High organi Organic pan Hydric soils	Chitwood - No, Texture silt loam loam	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils) )	angular ky
Taxonomy:     Ad       Depth     Horiz       0-4 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon ilfidic Odor educing Conditions (tests p eyed	vpic Humaqu Redox Conce 7.5 H positive)	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few	nage class: On hydric so Depletions* one v, fine and fa	ils list? int Concretions High organi Organic pan	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils)	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils) )	angular ky
Taxonomy:       Addition         Depth       Horiz         0-4 in.       Horiz         4-16 in.       Horiz         Hi       Horiz         Hi       Horiz         Gl       Reg         Reg       Reg	auandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon lifidic Odor educing Conditions (tests p eyed edox features within 10 ind	pic Humaqu Redox Conce 7.5 H positive) ches	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few Iydric Soil I	nage class: On hydric so Depletions* one w, fine and fa Indicators	ils list?	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils) s list and profile	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils) )	angular ky
Taxonomy: <u>Aa</u> Depth Horiz 0-4 in. 4-16 in. Hi Hi Gl Gl Gl Re Re	auandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon lifidic Odor educing Conditions (tests p eyed edox features within 10 ind	pic Humaqu Redox Conce 7.5 H positive) ches	ppes Drain epts 0 ntrations / I nc DYR 5/8 few Jydric Soil I 	nage class: On hydric soi Depletions* one w, fine and fai Indicators	ils list? int Concretions High organi Organic pan Hydric soils	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils) s list and profile	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils) )	angular ky
Taxonomy:     Ad       Depth     Horiz       0-4 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon lifidic Odor educing Conditions (tests p eyed edox features within 10 inc No *abundance	pic Humaqu Redox Conce 7.5 H positive) ches	ppes Drain epts 0 ntrations / I no 5YR 5/8 few Jydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa m, fine and fa Indicators Indicators	ils list?	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils) s list and profile	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:     Ad       Depth     Horiz       0-4 in.	quandic Dystrudepts & Ty on Matrix Color F 10YR 2/2 10YR 3/3 stosol stic Epipedon difidic Odor educing Conditions (tests p eyed edox features within 10 inc No *abundance ed data available	pic Humaqu Redox Conce 7.5 H positive) ches	ppes Drain epts 0 ntrations / I nc 5YR 5/8 few Jydric Soil I 	nage class: On hydric soi Depletions* one w, fine and fai Indicators	ils list?	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils) s list and profile	Hebo-Yes Structure fine, sub- bloc fine angula 1 3";>2 mm) (sandy soils) )	angular ky
Taxonomy:       Addition         Depth       Horiz         0-4 in.	auandic Dystrudepts & Ty on Matrix Color R 10YR 2/2 10YR 3/3 stosol stic Epipedon ilfidic Odor educing Conditions (tests p eyed edox features within 10 inc No *abundanc ed data available	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain epts 0 ntrations / I no 5YR 5/8 few Jydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs	ils list?	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface (in sandy soils) s list and profile ) Stree	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       10YR 3/3         stic Epipedon       11dic Odor         ididic Odor       2ducing Conditions (tests peyed         edox features within 10 inc       *abundanc         ed data available	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam / Nodules (w/ir cs near surface ( i (in sandy soils) s list and profile ) Stree Time	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       10YR 3/3         stosol       stic Epipedon         ifidic Odor       educing Conditions (tests period         edvar features within 10 indo       *abundance         ed data available	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface ( i (in sandy soils) s list and profile ) Stree Time Time	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.       4-16 in.         4-16 in.       Hi         Hi       Hi         Criteria met?       Record         Record       No record         Depth of Inundation       Depth to Seepage	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       10YR 3/3         stosol       stic Epipedon         ifidic Odor       educing Conditions (tests period)         educing Conditions (tests period)       *abundance         ed data available	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface of (in sandy soils) s list and profile ) Stree Time Time root channels	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       stosol         stic Epipedon       store         ifidic Odor       educing Conditions (tests preved         edox features within 10 inc       *abundand         ed data available	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface (a (in sandy soils) s list and profile ) Stree Time Time Tot channels ined leaves	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       stic Epipedon         stic Epipedon       stosol         ifidic Odor       sducing Conditions (tests period         ed data available	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface (a (in sandy soils) s list and profile ) Stree Time Time Tot channels ined leaves l survey data	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       stic Epipedon         stic Epipedon       didic Odor         educing Conditions (tests preved       abundance         ed data available       abundance         orded data available       m         dry       E         dry       E         Inundated       Saturated w/in 12 inches         Water marks       Drift lines	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface (a (in sandy soils) s list and profile ) Stree Time Time Tot channels ined leaves	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       stic Epipedon         stic Epipedon       didic Odor         educing Conditions (tests preved       abundance         ed data available       abundance         orded data available       m         dry       E         Inundated       Saturated w/in 12 inches         Water marks       Drift lines         Sediment patterns       Sediment patterns	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface (a (in sandy soils) s list and profile ) Stree Time Time Tot channels ined leaves l survey data	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky
Taxonomy:       _Ad         Depth       Horiz         0-4 in.	quandic Dystrudepts & Ty         ion       Matrix Color       R         10YR 2/2       10YR 3/3         stosol       stic Epipedon         stic Epipedon       didic Odor         educing Conditions (tests preved       abundance         ed data available       abundance         orded data available       m         dry       E         dry       E         Inundated       Saturated w/in 12 inches         Water marks       Drift lines	rpic Humaqu Redox Conce 7.5 H positive) ches ce / size / cot	ppes Drain ppes Drain ntrations / I nc DYR 5/8 few Dydric Soil I Hydric Soil I 	nage class: On hydric so Depletions* one w, fine and fa w, fine and fa Indicators r / location (r LOGY hotographs wration)	ils list?	Chitwood - No, Texture silt loam loam loam / Nodules (w/ir cs near surface (a (in sandy soils) s list and profile ) Stree Time Time Tot channels ined leaves l survey data	Hebo-Yes Structure fine, sub- bloc fine angula n 3";>2 mm) (sandy soils) ) matches	angular ky

Project Location Applicant	Rockaway Beach	Co	ounty, Sta	te	Tillamook, Orego	m		
repercunt	Troy Johns		R, S		T2N, R10W, SE			·····
Transect / Plot	SP6		ate & Tim	e	7/1/05			
Recent Weather	Sunny and warm		ant Comm		coastal woodland			
Plot Location	Paired with SP7	* 10				****		
	tation or hydrology been si	gnificantly di	sturbed?	No				
mus me song rege		5		ATION				
Trees		% Cover	50	11101	Herbs		% Cover	45
Species	Status	Percent	Dom	Species		Status	Percent	Dom
Tsuga heterophyli		20	<u>√</u>	· · · · · · · · · · · · · · · · · · ·	ton americanum	OBL	25	<u>~~~~</u>
Alnus rubra	FAC	30		······	cooleyae	FACW	5	
					hemum dilatatum	FAC	10	
					veria hexandra	NL	5	
					um spicant	FAC+	Т	
Sapling / Shrub		% Cover	40		m filix-femina	FAC	Т	
Rubus spectabilis	FAC	40	✓					
<u></u>	1110	10						
				••••••				
Percept of domina	int species that are OBL, FA	ACW FAC	7	5%				
Criteria met?	Yes		<u> </u>	570				
	100		50	пe				
				ILS				
Map Unit Name:	Chitwood-Knappa silt 1					ewhat poorly dra		Irained
Taxonomy:	Aquandic Dystrudepts a	and Andic Dy	ystrudepts	<u> </u>	ydric soils list?		No	
Depth Hor	izon Matrix Color	Redox	Concent				<u></u>	
			Concent	rations / I	Depletions*	Texture	Struct	\
<u>0-6 in.</u> (		·····		none		organics	fine gra	\
6-10 in.	10YR 4/2	7.5Y	R 3/4 cor	none nmon, fin	ne, distinct	organics silt loam	fine gra	mular
		7.5Y	R 3/4 cor	none nmon, fin		organics silt loam shale		mular
6-10 in.	10YR 4/2	7.5Y	R 3/4 cor	none nmon, fin	ne, distinct	organics silt loam	fine gra	mular
6-10 in.	10YR 4/2	<u>7.5Y</u> 7.5Y	R 3/4 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct	organics silt loam shale	fine gra	mular
6-10 in. 10-16 in.	10YR 4/2	<u>7.5Y</u> 7.5Y	R 3/4 cor R 5/8 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct prs	organics silt loam shale fragments	fine gra	mular
6-10 in. 10-16 in.	10YR 4/2 2.5Y 5/3 Histosol	<u>7.5Y</u> 7.5Y	R 3/4 cor R 5/8 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct ors Concretion	organics silt loam shale fragments s / Nodules (w/in	fine gra weathered 1	mular
6-10 in. 10-16 in. H	10YR 4/2 2.5Y 5/3 Iistosol Histic Epipedon	<u>7.5Y</u> 7.5Y	R 3/4 cor R 5/8 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct ors Concretion High organ	organics silt loam shale fragments s / Nodules (w/in nics near surface (	fine gra weathered 1 3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H	10YR 4/2 2.5Y 5/3 Iistosol Iistic Epipedon Sulfidic Odor	7.5Y 7.5Y H	R 3/4 cor R 5/8 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct ors Concretion High organ Organic pa	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils)	fine gra weathered 1 (3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H S S H	10YR 4/2 2.5Y 5/3 Histosol Histic Epipedon Sulfidic Odor Reducing Conditions (tests )	7.5Y 7.5Y H	R 3/4 cor R 5/8 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil	organics silt loam shale fragments s / Nodules (w/in nics near surface (	fine gra weathered 1 (3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H S H C C	10YR 4/2 2.5Y 5/3 Iistosol Iistic Epipedon Sulfidic Odor	7.5Y 7.5Y H positive)	R 3/4 cor R 5/8 cor	none nmon, fin nmon, fin	ne, distinct ne, distinct ors Concretion High organ Organic pa	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils)	fine gra weathered 1 (3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H S H C C	10YR 4/2 2.5Y 5/3 Iistosol Bulfidic Odor Reducing Conditions (tests Bleyed Redox features within 10 in-	7.5Y 7.5Y H positive)	<u>R 3/4 cor</u> R 5/8 cor	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils) is list and profile	fine gra weathered 1 (3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H S H C H H C H	10YR 4/2 2.5Y 5/3 Iistosol Bulfidic Odor Reducing Conditions (tests Bleyed Redox features within 10 in-	7.5Y 7.5Y H positive)	<u>R 3/4 cor</u> R 5/8 cor Tydric Soi	none nmon, fin I Indicato	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil Other:	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils) is list and profile	fine gra weathered 1 (3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H S F Criteria met?	10YR 4/2         2.5Y 5/3         Histosol         Bistic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Bleyed         Redox features within 10 in         Yes       *abundant	7.5Y 7.5Y H positive)	<u>R 3/4 cor</u> R 5/8 cor lydric Soi tydric Soi HYDRO	none nmon, fin I Indicato	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil Other:	organics silt loam shale fragments s / Nodules (w/in hics near surface ( n (in sandy soils) is list and profile	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H S H Criteria met? Recon	10YR 4/2         2.5Y 5/3         Histosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Heyed         Redox features within 10 in         Yes         *abundant         ded data available	7.5Y 7.5Y H positive)	<u>R 3/4 cor</u> R 5/8 cor lydric Soi tydric Soi HYDRO _ Aerial	none nmon, fin I Indicato	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil Other:	organics silt loam shale fragments s / Nodules (w/in hics near surface ( n (in sandy soils) is list and profile	fine gra weathered 1 (3";>2 mm) (sandy soils)	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re	10YR 4/2         2.5Y 5/3         Histosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Bleyed         Redox features within 10 in         Yes         *abundant         rded data available         corded data available	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR0 _ Aerial _ Other	none nmon, fin I Indicato lor / locat DLOGY Photogra	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil Other:	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils) ls list and profile s)	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Iistosol         Iistic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Gleyed         Redox features within 10 in         Yes         *abundant         rded data available         corded data available         on       dry	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil Other:	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils) ls list and profile s) Strea	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re	10YR 4/2         2.5Y 5/3         Iistosol         Iistic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Gleyed         Redox features within 10 in         Yes         *abundant         rded data available         corded data available         on       dry	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct ors Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs	organics silt loam shale fragments s / Nodules (w/in nics near surface ( n (in sandy soils) ls list and profile s) Strea Time Time	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Jistosol         Jistic Epipedon         Sulfidic Odor         Reducing Conditions (tests           Bleyed         Redox features within 10 in         Yes         *abundant         rded data available         corded data available         on       dry         dry       I         Inundated	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct ne, distinct  The	organics silt loam shale fragments is / Nodules (w/in hics near surface ( in (in sandy soils) is list and profile s) S Strea Time Time Time l root channels	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Jistosol         Jistic Epipedon         Sulfidic Odor         Reducing Conditions (tests           Jleyed         Redox features within 10 in         Yes         *abundant         rded data available         corded data available         on       dry         dry       I	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct ne, distinct  The	organics silt loam shale fragments is / Nodules (w/in hics near surface ( in (in sandy soils) is list and profile s) S) Strea Time Time d root channels ained leaves	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Jistosol         Jistic Epipedon         Sulfidic Odor         Reducing Conditions (tests           Bleyed         Redox features within 10 in         Yes         *abundant         rded data available         corded data available         on       dry         dry       I         Inundated	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct rs Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs Oxidized Water-st Local so	organics silt loam shale fragments s / Nodules (w/in ics near surface ( in (in sandy soils) is list and profile ss) Strea Time Time d root channels ained leaves il survey data	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Iistosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Bleyed         Redox features within 10 in         Yes         *abundament         corded data available         corded data available         on       dry         dry       I         Inundated         Saturated w/in 12 inches	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct rs Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs Oxidized Water-st Local so	organics silt loam shale fragments is / Nodules (w/in hics near surface ( in (in sandy soils) is list and profile s) S) Strea Time Time d root channels ained leaves	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Histosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Bleyed         Redox features within 10 in-         Yes         *abundance         corded data available         corded data available         corded data available         in-         dry       I         Inundated         Saturated w/in 12 inches         Water marks	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	he, distinct he, distinct The distinct Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs Oxidized Water-st Local so	organics silt loam shale fragments s / Nodules (w/in ics near surface ( in (in sandy soils) is list and profile ss) Strea Time Time d root channels ained leaves il survey data	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Histosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests)         Bleyed         Redox features within 10 in-         Yes         *abundant         rded data available         corded data available         corded data available         on       dry         Inundated         Saturated w/in 12 inches         Water marks         Drift lines	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi tydric Soi HYDR( _ Aerial _ Other water (sai	none nmon, fin nmon, fin I Indicato	ne, distinct ne, distinct ne, distinct  Trs Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs Oxidizec Water-st Local so FAC – N	organics silt loam shale fragments s / Nodules (w/in ics near surface ( in (in sandy soils) is list and profile ss) Strea Time Time d root channels ained leaves il survey data	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H H S H C Criteria met? Recon √ No re Depth of Inundation	10YR 4/2         2.5Y 5/3         Histosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests provided data available         Reducing Conditions (tests provided data available         Corded data available	7.5Y 7.5Y H positive) ches ce / size / con	R 3/4 cor R 5/8 cor lydric Soi water (sau water (sau	none nmon, fin nmon, fin I Indicato	he, distinct he, distinct Drs Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs Oxidized Water-st Local so FAC – N Other	organics silt loam shale fragments s / Nodules (w/in ics near surface ( in (in sandy soils) is list and profile ss) Strea Time Time d root channels ained leaves il survey data	fine gra weathered 3";>2 mm) (sandy soils) matches	mular
6-10 in. 10-16 in. H S H Criteria met? Recon ✓ No re Depth of Inundati Depth to Scepage	10YR 4/2         2.5Y 5/3         Histosol         Histic Epipedon         Sulfidic Odor         Reducing Conditions (tests provided data available         Reducing Conditions (tests provided data available         Corded data available	7.5Y 7.5Y H positive) ches ce / size / com Depth to free Depth to free	R 3/4 cor R 5/8 cor avdric Soi avdric Soi Avdric Soi HYDRO Aerial Other water (sai water (sai avater (sai	none nmon, fin nmon, fin I Indicato	he, distinct he, distinct Drs Concretion High organ Organic pa Hydric soil Other: tion (matrix or pore phs Oxidized Water-st Local so FAC – N Other	organics silt loam shale fragments s / Nodules (w/in ics near surface ( in (in sandy soils) is list and profile ss) Strea Time Time d root channels ained leaves il survey data	fine gra weathered 3";>2 mm) (sandy soils) matches	mular

Project Location	Rockaway Beac		Co	ounty, Sta		Tillamook, Orego	n		
Applicant	Troy Johns			R, S		T2N, R10W, SE ½	4 of Sec. 29		
Transect / Plot	SP7		Da	ate & Tin	ne	7/1/05			
Recent Weather	Sunny and warm		P1	ant Comr	nunity	Coastal woodland			
Plot Location	paired with SP6								
Has the soil, vegeta	ation or hydrology	been sig	gnificantly d	isturbed?	No				
				VEGE	FATION				
Trees			% Cover	80		Herbs		% Cover	95
Species	Si	tatus	Percent	Dom	Specie	s	Status	Percent	Don
Alnus rubra	F	AC	20	$\checkmark$	Blechn	um spicant	FAC+	20	$\checkmark$
Tsuga heterophyllc	r FA	ACU-	60	1	Clayto	nia sibirica	FACW	5	
					Athyrii	um filix-femina	FAC	35	$\checkmark$
						s cooleyae	FACW	Т	
					Gaulth	eria shallon	FACU	30	✓
Sapling / Shrub			% Cover	80	Vancor	uveria hexandra	NL	5	
Rubus spectabilis	F	FAC	55	$\checkmark$					
Sambucus racemos	a FA	ACU	20	$\checkmark$					
Vaccinium parvifo	ium FA	ACU	5						
Percent of dominar	nt species that are C	)BL, FA	ACW, FAC:		57%				
Criteria met?	Yes					-			
/ap Unit Name:	Chitwood-Knap	na silt le	oams. 0-7%		DILS Dr	rainage some	what poorly dra	ined & well d	rained
map onn Name.	Chitwoou-Kitapj	pa sin e	0ains, 0-770	siopes		anage some	what poorty dra	inea & wen a	rameo
Taxonomy:	Aquandic Dystru	udents a	und Andie D	vstrudent		ydric soils list?	N	No	
Tunonomy.				Jonuaept					
Depth Horiz			Redox	Concent	trations /	Depletions*	Texture	Struct	ure
+3-0 in. dut							duff		
0-9 in.	<u> </u>				nmon, fin	e, and faint	silty clay	fine gra	nular
Note: Bedrock (hig	hly weathered shal	e) at a c	lepth of nine	inches.					
	<u></u>								······
			H	Iydric Soi	il Indicat	ors			
Н	istosol					Concretions	s / Nodules (w/in	3":>2 mm)	
H	istic Epipedon						ics near surface (		
	Ifidic Odor						n (in sandy soils)		
	educing Conditions	s (tests r	ositive)		<u></u>		s list and profile		
	leyed	· (	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Other:			
	edox features within	n 10 inc	ches						
Criteria met?				ntrast / co	lor / loca	tion (matrix or pores	s)		
					OLOGY		,		
Pagare	led data available					nha	Stuar		
	orded data availabl	~		Other	Photogra	apris	Suea	am gauge	
Depth of Inundatio			epth to free				Time		
Depth to Seepage	dry		epth to free	water (sa	turation)		Time		
	Inundated						root channels		
	Saturated w/in 12 i	inches				**	ined leaves		
	Water marks						l survey data		
	Drift lines						eutral Test		
	Sediment patterns					Other			
	13 1 11								
	Drainage patterns								
Criteria met?	No No					0000			
Criteria met?	No	Staff		Nanov	Roticka				
Criteria met?		Staff:	v hetween s			nd Laura Miller			

Project Location	Rockaway Beach		County, Sta	ite	Tillamook, Oregon
Applicant	Troy Johns	***************************************	T, R, S		T2N, R10W, SE ¼ of Sec. 29
Transect / Plot	SP8		Date & Tin		7/1/05
Recent Weather	Sunny and warm		Plant Comr	nunity	
Plot Location	Western wetland lin			<b></b>	
Has the soil, vege	tation or hydrology been	i significantiy			
-		A		FATION	
Trees		% Cove		<u> </u>	Herbs % Cover 0
Species	Statu			Species	Status Percent Dom
Picea sitchensis	FAC		~~~~ <u>~</u>	none	
Alnus rubra	FAC				
Tsuga heterophyl	la FACL	J- 30	√		
Sapling / Shrub		% Cove	r 50		
Rubus spectabilis	FAC		<u>1 50</u> √		
	*****		¥		
Sambucus racemo			*		
Gaultheria shallo	n FACU	<u> </u>			
Percent of doming	ant species that are OBL	EACW EAG	~. ~.	60	
Criteria met?	•	, racw, rav		00	
	Yes				
			SC	MLS	
Map Unit Name:	Chitwood-Hebo Cor	nplex, 0-5% \$	Slopes Dr	ainage cla	ass: somewhat poorly drained & poorly drained
Taxonomy:	Aquandic Dystrudepts &	Typic Huma	quepts	On hyd	ric soils list? Chitwood - No, Hebo-Yes
Depth Hor	izon Matrix Color	Redo	x Concentr	ations / D	epletions* Texture Structure
	lff	Reduc			
0-15 in. (1)	2.5YR 2.5/2			none	silt loam fine granular
15-16 in.	10YR 3/2			YR 5/8	silty clay loam subangular blocky
15-10 m.	10110 J/2		1.5	110 5/0	Sinty ciay toann Subangular blocky
			11 1 . 0		
			Hydric So	il Indicato	
	Histosol				Concretions / Nodules (w/in 3";>2 mm)
I	Histic Epipedon				High organics near surface (sandy soils)
<u> </u>	Sulfidic Odor				Organic pan (in sandy soils)
I	Reducing Conditions (te	sts positive)			Hydric soils list and profile matches
(	Gleyed				Other:
Ι	Redox features within 10	) inches			
Criteria met?	No *abuno	lance / size / d	contrast / co	lor / locat	ion (matrix or pores)
				OLOGY	
Deres	ded data available				nho Stease asuas
	corded data available			Photogra	phs Stream gauge
· · · · · · · · · · · ·		D. 1 ^	Other	4	<b>711</b>
Depth of Inundati	······································	_ Depth to fr			Time
Depth to Seepage	dry	_ Depth to fr	ee water (sa	aturation)	Time
	Inundated				Oxidized root channels
	Saturated w/in 12 inch	es			Water-stained leaves
	Water marks				Local soil survey data
	Drift lines				FAC – Neutral Test
	Sediment patterns				Other
	Drainage patterns				
Criteria met?		overed, no dr	ainage patte	erns.	·····
Wetland? Comments:	<u>No</u> St	aff:	Laura l	Miller and	l Nancy Rorick

WETLAND DETERMINATION DATA	SHEET: Onsite Method
Rorick Environmental Services,	503-668-8660

Project Location	Rockaway	Beach	Co	unty, Sta	fe	Tillamook,	Oregon			
Applicant	Troy Johns			R, S		T2N, R10W		f Sec. 29		
Transect / Plot	SP9			te & Tim	e	7/1/05	,		···· · · · · · · · · · · · · · · · · ·	
Recent Weather	Sunny and	warm	·····	ant Comm		coastal woo	ndland			
Plot Location	Paired with									
Has the soil, vege			nificantly di	sturbed?	No					•••
1100 110 0011, 1050	and of hydro	,105) occir ore	Sumountly a		ATION					
Trees			% Cover	75		Herbs			% Cover	31
Species		Status	Percent	Dom	Specie			Status	Percent	Dom
Picea sitchensis		FAC	30	√		, ton american	17.2812	OBL	25	<u></u>
Tsuga heterophyl	1a	FACU-	15			m filix-femin		FAC	3	
Alnus rubra	14	FAC	30	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		um spicant		FAC+	3	
Amus ruoru		170	50		Diechn	um spicuni			<u>_</u>	
Sapling / Shrub			% Cover	60						
Rubus spectabilis		FAC	30	$\checkmark$						
Sambucus racemo	osa	FACU	30	$\checkmark$						
Daugant of domin	ant opposing that		CW EAC		80					
Percent of domina Criteria met?		are OBL, FA	W, FAC:	<u></u>	80	-				
Criteria met?	Yes									
				SO	ILS					
Map Unit Name:	Chitwood-	Hebo Comple	ex, 0-5% Slo	pes Dra	ainage cl	ass: _	somewhat	poorly draine	d & poorly d	rained
Taxonomy: Aq	uandic Dystru	depts & Typi	c Humaquep	ts On	hydric s	oils list?	Chi	itwood - No, I	Hebo-Yes	
Depth Hor	izon Matr	ix Color	Pedov	Constant						
			REGUX	Concenu	rations /	Depletions*		Texture	Struct	ure
+1-0 in. du	ıff		Redux	Concenu	rations /	Depletions*		Texture	Struct	ure
0-5 in.	1ff 10ኝ	/R 3/1			none			Texture silt loam	Struct fine, suban	
0-5 in. 5-12 in.	1ff 10¥ 2.5	(R 3/1 Y 5/3 7	.5YR 4/5 coi	nmon, fir	none 1e, distin	ct				
0-5 in. 5-12 in. 12-16 in.	1ff 10Y 2.5 10Y	(R 3/1 Y 5/3 7 (R 4/4 2	.5YR 4/5 coi	nmon, fir	none 1e, distin			silt loam		
0-5 in. 5-12 in.	1ff 10Y 2.5 10Y	(R 3/1 Y 5/3 7 (R 4/4 2	.5YR 4/5 coi	nmon, fir	none 1e, distin	ct		silt loam silt loam	fine, suban	
0-5 in. 5-12 in. 12-16 in.	1ff 10Y 2.5 10Y	(R 3/1 Y 5/3 7 (R 4/4 2	.5YR 4/5 coi .5YR 4/8 me	nmon, fir	none 1e, distin mmon ar	ct d prominent		silt loam silt loam	fine, suban	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm	1ff 10Y 2.5 10Y	(R 3/1 Y 5/3 7 (R 4/4 2	.5YR 4/5 coi .5YR 4/8 me	nmon, fir dium, coi	none 1e, distin mmon ar	ct d prominent ors	cretions / 1	silt loam silt loam clay loam	fine, suban gritty	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragn	1ff 10Y 2.5 10Y hents from 12 t Histosol	/R 3/1 Y 5/3 7 /R 4/4 2 o 16 inches.	.5YR 4/5 coi .5YR 4/8 me	nmon, fir dium, coi	none 1e, distin mmon ar	ct d prominent ors Conc		silt loam silt loam clay loam Nodules (w/in	fine, suban gritty 3";>2 mm)	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragn	1ff 10Y 2.5 10Y hents from 12 t Histosol Histic Epipedor	/R 3/1 Y 5/3 7 /R 4/4 2 o 16 inches.	.5YR 4/5 coi .5YR 4/8 me	nmon, fir dium, coi	none 1e, distin mmon ar	ct d prominent ors Conc High	organics	silt loam silt loam clay loam Nodules (w/in near surface (	fine, suban gritty 3";>2 mm) sandy soils)	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragn	1ff 103 2.5 103 nents from 12 t Histosol Histic Epipedor Sulfidic Odor	(R 3/1 Y 5/3 7 (R 4/4 2 o 16 inches.	.5YR 4/5 coi .5YR 4/8 me H	nmon, fir dium, coi	none 1e, distin mmon ar	ct d prominent ors Conc High Orga	organics mic pan (i	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils)	fine, suban gritty 3";>2 mm) sandy soils)	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragn	1ff 10Y 2.5 10Y nents from 12 t Histosol Histic Epipedon Sulfidic Odor Reducing Cond	(R 3/1 Y 5/3 7 (R 4/4 2 o 16 inches.	.5YR 4/5 coi .5YR 4/8 me H	nmon, fir dium, coi	none 1e, distin mmon ar	ct d prominent ors Conc High Orga Hydu	a organics mic pan (i ric soils lis	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile	fine, suban gritty 3";>2 mm) (sandy soils) matches	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm	1ff 103 2.5 103 nents from 12 t Histosol Histic Epipedor Sulfidic Odor	(R 3/1 Y 5/3 7 (R 4/4 2 o 16 inches. n	.5YR 4/5 coi .5YR 4/8 me H positive)	nmon, fir dium, coi	none 1e, distin mmon ar	ct d prominent ors Conc High Orga	a organics mic pan (i ric soils lis	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils)	fine, suban gritty 3";>2 mm) (sandy soils) matches	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm	1ff 10Y 2.5 10Y nents from 12 t Histosol Histic Epipedor Sulfidic Odor Reducing Cond Gleyed	(R 3/1 Y 5/3 7 (R 4/4 2 o 16 inches. n litions (tests p within 10 inc	.5YR 4/5 coi .5YR 4/8 me H positive)	mmon, fir dium, con ydric Soi	none ne, distin mmon ar l Indicat	ct d prominent ors Conc High Orga Hydu	a organics mic pan (i ric soils lis r: Low	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile	fine, suban gritty 3";>2 mm) (sandy soils) matches	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm	1ff 10Y 2.5 10Y nents from 12 t Histosol Histic Epipedor Sulfidic Odor Reducing Cond Gleyed Redox features	(R 3/1 Y 5/3 7 (R 4/4 2 o 16 inches. n litions (tests p within 10 inc	.5YR 4/5 coi .5YR 4/8 me H positive)	mmon, fir dium, con ydric Soi	none ne, distin mmon ar l Indicate	ct d prominent ors Conc High Orga Hydu Othe	a organics mic pan (i ric soils lis r: Low	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile	fine, suban gritty 3";>2 mm) (sandy soils) matches	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm H Criteria met?	1ff 10Y 2.5 10Y nents from 12 t Histosol Histic Epipedor Sulfidic Odor Reducing Cond Gleyed Redox features	<u>(R 3/1 Y 5/3 7</u> ( <u>R 4/4 2</u> o 16 inches. n litions (tests p within 10 inc *abundanc	.5YR 4/5 coi .5YR 4/8 me H positive)	mmon, fir dium, con ydric Soi trast / col HYDRG	none ne, distin mmon ar l Indicate	ct d prominent ors Conc High Orga Orga Hydt Othe tion (matrix o	a organics mic pan (i ric soils lis r: Low	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm H Criteria met? Recon	1ff 10Y 2.5 10Y nents from 12 t Histosol Histic Epipedor Sulfidic Odor Reducing Cond Gleyed Redox features Yes	<u>(R 3/1 Y 5/3 7</u> ( <u>R 4/4 2</u> o 16 inches. n litions (tests p within 10 inc *abundanc	.5YR 4/5 coi .5YR 4/8 me H positive)	mmon, fir dium, con ydric Soi trast / col HYDRG	none ne, distin mmon ar l Indicate	ct d prominent ors Conc High Orga Orga Hydt Othe tion (matrix o	a organics mic pan (i ric soils lis r: Low	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri	fine, suban gritty 3";>2 mm) (sandy soils) matches	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm H Criteria met? Record No record	1ff 10Y 2.5 10Y 10Y 10Y 10Y 10Y 10Y 10Y 10Y	<u>(R 3/1 Y 5/3 7</u> (R 4/4 2 o 16 inches. n litions (tests p within 10 inc *abundanc ableable	.5YR 4/5 con .5YR 4/8 me H positive) ches ce / size / con	nmon, fir odium, con ydric Soi ydric Soi HYDRG _ Acrial _ Other	none ne, distin mmon ar l Indicate lor / loca DLOGY Photogra	ct d prominent ors Conc High Orga Orga Hydt Othe tion (matrix o	a organics mic pan (i ric soils lis r: Low	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avail         coorded data avail         coorded data avail         coorded data avail	<u>(R 3/1 Y 5/3 7</u> <u>(R 4/4 2</u> o 16 inches. n litions (tests p within 10 inc *abundanc able railable	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Orga Hydt Othe tion (matrix o	a organics mic pan (i ric soils lis r: Low	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Timc	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm H Criteria met? Record No record	1ff         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avails         corded data avails         corded data avails	<u>(R 3/1 Y 5/3 7</u> <u>(R 4/4 2</u> o 16 inches. n litions (tests p within 10 inc *abundanc able railable	.5YR 4/5 con .5YR 4/8 me H positive) ches ce / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hydu Othe tion (matrix o 	a organics nic pan (i ric soils lis er: <u>Low</u> or pores)	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff         10Y         2.5         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avails         corded data avails         corded data avails         corded data avails         conded data avails         Inundated	$\frac{(R 3/1)}{(R 4/4 2)}$ o 16 inches. n litions (tests p within 10 inc *abundanc able pailable D D	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Mydt Othe tion (matrix o uphs Ox	a organics mic pan (i ric soils lis er: <u>Low</u> or pores)	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri chroma matri Strea Time Time Time	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff         10Y         2.5         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avails         corded data avails	$\frac{(R 3/1)}{(Y 5/3)} = \frac{7}{7}$ $\frac{(R 4/4)}{(R 4/4)} = 2$ o 16 inches. a) b b b c b c b b b b b b b b b b b b b	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hydt Othe tion (matrix o phs Ox Ox Ox	a organics mic pan (i ric soils lis er: <u>Low</u> or pores) or pores) kidized roo ater-staine	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri chroma matri Strea Time Time Time ot channels ed leaves	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff 10Y 2.5 10Y 10Y 10Y 10Y 10Y 10Y 10Y 10Y	$\frac{(R 3/1)}{(Y 5/3)} = \frac{7}{7}$ $\frac{(R 4/4)}{(R 4/4)} = 2$ o 16 inches. a) b b b c b c b b b b b b b b b b b b b	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hydt Othe tion (matrix o uphs    	a organics mic pan (i ric soils lis er: Low or pores) or pores) kidized roo ater-staine ocal soil su	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time Time Time ot channels ed leaves urvey data	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff 10Y 2.5 10Y 10Y 10Y 10Y 10Y 10Y 10Y 10Y	$\frac{(R 3/1)}{Y 5/3 7}$ $\frac{Y 5/3 7}{(R 4/4 2)}$ o 16 inches.  In litions (tests p within 10 inc able able blac blac blac blac blac blac blac blac	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hydt Othe tion (matrix o uphs Ox King King King King King King King King	a organics mic pan (i ric soils lis er: Low or pores) or pores) cidized roo ater-staine ocal soil su AC – Neut	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time Time Time ot channels ed leaves urvey data	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff         10Y         2.5         10Y         2.5         10Y         10Y         10Y         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avail         corded data	(R 3/1         Y 5/3       7         (R 4/4       2         o 16 inches.         n         litions (tests p         within 10 inc         *abundanc         able         railable         D         in 12 inches         terns	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir dium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat	none ne, distin mmon ar l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hydt Othe tion (matrix o uphs Ox King King King King King King King King	a organics mic pan (i ric soils lis er: Low or pores) or pores) kidized roo ater-staine ocal soil su	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time Time Time ot channels ed leaves urvey data	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Depth of Inundati Depth to Seepage	1ff         10Y         2.5         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avail         corded model         Saturated w/it         Water marks         Drift lines         Sediment pat         Drainage pat	(R 3/1         Y 5/3       7         (R 4/4       2         o 16 inches.         n         litions (tests p         within 10 inc         *abundanc         able         ailable         D         in 12 inches         terns         terns	.5YR 4/5 con .5YR 4/8 me H positive) shes se / size / con Pepth to free Pepth to free	nmon, fir edium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat water (sat	none ne, distin mmon ar l Indicate l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hyde Othe tion (matrix o uphs Ox Vi Lo FA Ot	a organics mic pan (i ric soils lis er: Low or pores) or pores) cidized roo ater-staine ocal soil su AC – Neut	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time Time Time ot channels ed leaves urvey data	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Record No record Depth of Inundati	1ff         10Y         2.5         10Y         2.5         10Y         10Y         10Y         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avail         corded data	(R 3/1         Y 5/3       7         (R 4/4       2         o 16 inches.         n         litions (tests p         within 10 inc         *abundanc         able         ailable         D         in 12 inches         terns         terns	.5YR 4/5 con .5YR 4/8 me H positive) thes the / size / con	nmon, fir edium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat water (sat	none ne, distin mmon ar l Indicate l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hyde Othe tion (matrix o uphs Ox Vi Lo FA Ot	a organics mic pan (i ric soils lis er: Low or pores) or pores) cidized roo ater-staine ocal soil su AC – Neut	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time Time Time ot channels ed leaves urvey data	fine, suban gritty 3";>2 mm) sandy soils) matches x	
0-5 in. 5-12 in. 12-16 in. Note: Shale fragm I Criteria met? Criteria met? Depth of Inundati Depth to Seepage	1ff         10Y         2.5         10Y         2.5         10Y         ents from 12 t         Histosol         Histic Epipedor         Sulfidic Odor         Reducing Cond         Gleyed         Redox features         Yes         rded data avail         corded model         Saturated w/it         Water marks         Drift lines         Sediment pat         Drainage pat <td>(R 3/1         Y 5/3       7         (R 4/4       2         o 16 inches.         n         litions (tests p         within 10 inc         *abundanc         able         ailable         D         in 12 inches         terns         terns</td> <td>.5YR 4/5 con .5YR 4/8 me H positive) shes se / size / con Pepth to free Pepth to free</td> <td>nmon, fir edium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat water (sat</td> <td>none ne, distin mmon ar l Indicate l Indicate v lor / loca DLOGY Photogra turation)</td> <td>ct d prominent ors Conc High Orga Hyde Othe tion (matrix o uphs Ox Vi Lo FA Ot</td> <td>a organics mic pan (i ric soils lis er: Low or pores) or pores) cidized roo ater-staine ocal soil su AC – Neut</td> <td>silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri  Strea Time Time Time ot channels ed leaves urvey data</td> <td>fine, suban gritty 3";&gt;2 mm) sandy soils) matches x</td> <td></td>	(R 3/1         Y 5/3       7         (R 4/4       2         o 16 inches.         n         litions (tests p         within 10 inc         *abundanc         able         ailable         D         in 12 inches         terns         terns	.5YR 4/5 con .5YR 4/8 me H positive) shes se / size / con Pepth to free Pepth to free	nmon, fir edium, con ydric Soi ydric Soi HYDRO Acrial Other water (sat water (sat	none ne, distin mmon ar l Indicate l Indicate v lor / loca DLOGY Photogra turation)	ct d prominent ors Conc High Orga Hyde Othe tion (matrix o uphs Ox Vi Lo FA Ot	a organics mic pan (i ric soils lis er: Low or pores) or pores) cidized roo ater-staine ocal soil su AC – Neut	silt loam silt loam clay loam Nodules (w/in near surface ( n sandy soils) st and profile chroma matri Strea Time Time Time ot channels ed leaves urvey data	fine, suban gritty 3";>2 mm) sandy soils) matches x	

Project Location	Rockaway Be	ach		ounty, Sta	,	Tillam	ook, Oregon			
Applicant	Troy Johns			R, Š			R10W, SE ¼ of	Sec. 29		
Transect / Plot	SP10			ate & Tim		7-2-05				
Recent Weather	Sunny and wa	um	Pla	ant Comn			l woodland			
Plot Location	paired with S	P11								
Has the soil, vege	tation or hydrolog	gy been sigi	nificantly di	isturbed?	No					
				VEGET	TATION					
Trees			% Cover	70		He	rbs		% Cover	65
Species		Status	Percent	Dom	Species			Status	Percent	Dom
Almus rubra		FAC	50	$\checkmark$	Lysichito	n ame	ricanum	OBL	60	
Picea sitchensis		FAC	20	~	Claytoni	*****	***************************************	FACW	5	
			·····							
Sapling / Shrub			% Cover	90						
Rubus spectabilis		FAC	70	✓						
Sambucus racemo	)sa	FACU	20	✓						
									· · · · ·	
Percent of domina	ant species that are	e OBL. FA	CW. FAC:		30%		· · · · · · · · · · · · · · · · · · ·		·····	
Criteria met?	Yes									
				SO	ILS					
Map Unit Name:	Chitwood-Kn	anna eilt la	me 0.7%		Drainage	olocor	somen	that noorly d	rained & well	drained
Taxonomy:	Aquandic Dys						ydric soils list?		No	uranieu
· · · · · · · · · · · · · · · · · · ·										
	izon Matrix (	Color	Redox	Concentra	ations / De	pletion	s*	Texture	Struct	ure
	iff IOVD	2/2	103	ZD 2/(				11.1		
0-2 in.	10YR				mmon and			silt loam		
2-6 in. 6-12 in	<u>10YR</u> 10YR				mmon and mon and m			silt loam		
12-18 in.	101K				md 10YR 5			y clay loam y clay loam		
Note: many rock		)[2	2			0/10	5111			
TYORC: Marry TOCK	fragments in son	***************************************			1 F., 1					
_			H	lydric Soi	I Indicator					
	listosol						Concretions / N			
	listic Epipedon						High organics r			
	Sulfidic Odor	,					Organic pan (in			
	Reducing Condition	ons (tests po	ositive)				Hydric soils lis	t and profile	matches	
	Gleyed	1.1.10.1.1					Other:			
Criteria met?	edox features wi Yes			tract / aci	lor / lo onti		trix or pores)			
Cinena met:	105	abundance	SIZE / COI			лі (ша	unx or pores)			
					OLOGY			~		
	ded data available			_	Photograp	ns		Strea	m gauge	
	eorded data availa	********		Other						
Depth of Inundati	***************************************		pth to free					Time -		
Depth to Seepage	<u>18 ir</u>	<u>1.</u> De	pth to free	water (sat	turation)			Time		
	Inundated				~		_ Oxidized roo	t channels		
	Saturated w/in 1	2 inches					_ Water-stained			
	Water marks						_ Local soil sui			
	Drift lines				·····		_ FAC – Neutr	al Test		
	Sediment pattern						_ Other			
<u>a.t.</u>	Drainage patterr		•	-					·····	
Criteria met?	Yes	soil very mo	oist, late sea	ason wetla	and delinea	ation				
Wetland?	Yes	Staff:		Laura N	Miller and I	Vancy	Rorick			
Comments:					unu i					

Duringst Frankling	Deelsesses Deeels			Services, 505-0				
Project Location	Rockaway Beach		County, Sta		mook, Oregon	66		
Applicant	Troy Johns		, R, S		I, R10W, SE ¼ (	of Sec. 29		
Transect / Plot	SP11		Pate & Tim					
Recent Weather	Sunny and warm	Р	lant Comn	nunity <u>coas</u>	stal woodland			
Plot Location	Paired with SP10		P 4 1 10					
Has the soil, veget	ation or hydrology bee	en significantly o		No				
			VEGET	ATION				
Trees		% Cover	70	I	Herbs		% Cover	50
Species	Statu	us Percent	Dom	Species		Status	Percent	Dom
Picea sitchensis	FAC	C 20	✓	Polystichum	munitum	FACU	40	$\checkmark$
Alnus rubra	FAC		~~~~~	Stachys coole		FACW	10	
Tsuga heterophylle					2			
<u> </u>								*****
Sapling / Shrub		% Cover	70					
Rubus spectabilis	FAC							
Sambucus racemo.			✓					
Vaccinium ovatum	NL	. 5						
					······			
	<u> </u>							
Percent of domina	nt species that are OBI	L. FACW. FAC	: 6					
Criteria met?	Yes	3,111011,1110	·					
				TT G				
			SO	ILS				
Map Unit Name:	Chitwood-Knappa			Drainage clas		hat poorly drai	ined & well d	rained
Taxonomy:	Aquandic Dystrude	pts and Andic E	<b>Dystrudepts</b>	<u>}</u>	On hydric soils	list?	No	
Depth Hori	zon Matrix Color	Redo	x Concent	rations / Deplet	tions*	Texture	Struct	ture
0-11 in.	10YR 3/3			none		silt loam	with co	
0-11 JII.				none		Sin Ioani	with 00	00103
						· · · · · · · · · · · · · · · · · · ·		
······································	ĸĸĸĸĸĊĸĸĬĸĊĸĊĸĊĸĊĊĊĊĊĊĊĊĊĸĊĊĸĸĊĸĊĸĊĊĸĸĊĸĸ	J	Hydric Soi	l Indicators	********			<del></del>
Ц	listosol		2		Concretions /	Nodules (w/in	3"·>2 mm)	
	listic Epipedon					s near surface (		
	ulfidic Odor					in sandy soils)		
		acta na citiva)				ist and profile		
	educing Conditions (te	ests positive)				ist and prome	matches	
	leyed	0 1 1 1			_ Other:			
	edox features within 1							
Criteria met?	<u>No</u> *abun	ndance / size / co			natrix or pores)			
			HYDR	OLOGY				
Recon	ded data available		Aerial	Photographs		Strea	im gauge	
	corded data available		Other	O			00-	
Depth of Inundatio		Depth to free		turation)		Time		
Depth to Seepage		Depth to free				- Time . Time	······	
Debui to seebage	dry	Depui to free	s water (sa		<u></u>			
	Inundated					oot channels		
	Saturated w/in 12 incl	hes			Water-stair			
	Water marks				Local soil s			
	Drift lines				FAC – Neu	itral Test		
	Sediment patterns				Other			
	Drainage patterns							
Criteria met?	No				-			
Wetland?	······································	staff:	Laura N	Miller and Nand	cy Rorick			

Project Location	Rockaway Beach	Co	ounty, Stat	te	Tillamook, Oregon			
Applicant	Troy Johns		T, R, S Date & Time Plant Community		T2N, R10W, SE ¼ (	of Sec. 29		
Transect / Plot	SP12				7/2/05			
Recent Weather	Sunny and warm							
Plot Location	Paired with SP13	*********						
Has the soil, vege	tation or hydrology been s	ignificantly d	isturbed?	No				
-			VEGET	ATION				
Trees		% Cover			Herbs		% Cover	
Species	Status	Percent	Dom	Species	110103	Status	Percent	Dom
Alnus rubra	FAC	30	 √		hum munitum	FACU	25	
Tsuga heterophyll		25	· · · · · · · · · · · · · · · · · · · ·		n filix-femina	FAC	5	•
Picea sitchensis	FAC	5			n spicant	FAC+	25	~
<u>Cl</u> ;/ <u>Cll</u>		0/ 0		·····				
Sapling / Shrub	E A C	% Cover	~					
Rubus spectabilis	FAC	80	v					
Sambucus racemo	sa FACU	10						
Percent of domina	nt species that are OBL, F	ACW EAC	6	0%				
Criteria met?	Yes	ACW, FAC:	0	070				
	103							
			SO					
Map Unit Name:	Chitwood-Knappa silt					ewhat poorly d		l drained
Taxonomy:	Aquandic Dystrudepts	and Andie D					<u>х</u> т	
	x iqualiare D Jou adopto	and Andre D	ystrudepts	L	On hydri	c soils list?	No	
Depth Hori			vstrudepts Concentra		-	c soils list? Texture	NoStruc	ture
•			Concentra		-			ture
Depth Hori	zon Matrix Color	Redox	Concentra	ations / De	pletions*	Texture		ture
Depth Hori 0-14 in.	zon Matrix Color 10YR 3/2	Redox	Concentra n	ations / De	pletions*	Texture silt loam		ture
Depth Hori 0-14 in.	zon Matrix Color 10YR 3/2	Redox 7	Concentra n 7.5YR 4/6	ntions / De one few and f	pletions* ine si	Texture silt loam		ture
Depth Hori 0-14 in. 14-16 in.	izon Matrix Color 10YR 3/2 10YR 2/2	Redox 7	Concentra n	ntions / De one few and f	ine si	Texture silt loam lty clay loam	Struc	ture
Depth Hori 0-14 in. 14-16 in. H	Istosol	Redox 7	Concentra n 7.5YR 4/6	ntions / De one few and f	ine si s Concretions /	Texture silt loam lty clay loam Nodules (w/in	Struc 3";>2 mm)	ture
Depth         Hori           0-14 in.         14-16 in.           14-16 in.         Hori           Hori         Hori           Hori         Hori	izon Matrix Color 10YR 3/2 10YR 2/2 Iistosol Iistic Epipedon	Redox 7	Concentra n 7.5YR 4/6	ntions / De one few and f	ine si s Concretions / High organic:	Texture silt loam Ity clay loam Nodules (w/in s near surface (	Struc 3";>2 mm) sandy soils)	
Depth         Hori           0-14 in.         14-16 in.           14-16 in.         14-16 in.	Iistosol Iistic Epipedon Iifidic Odor	Redox 7 H	Concentra n 7.5YR 4/6	ntions / De one few and f	ine si s Concretions / High organic: Organic pan (	Texture silt loam lty clay loam Nodules (w/in s near surface ( in sandy soils)	Struc 3";>2 mm) sandy soils)	
Depth         Hori           0-14 in.         1           14-16 in.         1           Herris         1           B         B	Iistosol Iistic Epipedon Culfidic Odor Leducing Conditions (tests	Redox 7 H	Concentra n 7.5YR 4/6	ntions / De one few and f	rs Concretions * Concretions / High organic: Organic pan ( Hydric soils l	Texture silt loam Ity clay loam Nodules (w/in s near surface (	Struc 3";>2 mm) sandy soils)	
Depth         Hori           0-14 in.         1           14-16 in.         1           Hori         1           Baseline         1	Iistosol Iistic Epipedon Julfidic Odor Leducing Conditions (tests Ileyed	Redox 7 H positive)	Concentra n 7.5YR 4/6	ntions / De one few and f	ine si s Concretions / High organic: Organic pan (	Texture silt loam lty clay loam Nodules (w/in s near surface ( in sandy soils)	Struc 3";>2 mm) sandy soils)	
Depth         Hori           0-14 in.         1           14-16 in.         1           Herris         1           Baseline         Herris           Herris         Herris           Baseline         Herris           Herris         Herris           He	Iistosol Iistic Epipedon Julfidic Odor Leducing Conditions (tests Bleyed Ledox features within 10 ir	Redox 7 Positive)	Concentra n 7.5YR 4/6 Iydric Soil	ntions / De one few and f	rs Concretions* Concretions / High organic: Organic pan ( Hydric soils l Other:	Texture silt loam lty clay loam Nodules (w/in s near surface ( in sandy soils)	Struc 3";>2 mm) sandy soils)	
Depth         Hori           0-14 in.         1           14-16 in.         1           Hori         1           Baseline         1	Iistosol Iistic Epipedon Julfidic Odor Leducing Conditions (tests Bleyed Ledox features within 10 ir	Redox 7 Positive)	Concentra n 7.5YR 4/6 Iydric Soil	ntions / De one few and f I Indicator	rs Concretions * Concretions / High organic: Organic pan ( Hydric soils l	Texture silt loam lty clay loam Nodules (w/in s near surface ( in sandy soils)	Struc 3";>2 mm) sandy soils)	ture
Depth         Hori           0-14 in.         1           14-16 in.         1           Herris         1           Baseline         Herris           Herris         No	Iistosol Iistic Epipedon Julfidic Odor Leducing Conditions (tests Bleyed Ledox features within 10 ir	Redox 7 Positive)	Concentra n 7.5YR 4/6 Iydric Soil	ntions / De one few and f I Indicator	rs Concretions* Concretions / High organic: Organic pan ( Hydric soils l Other:	Texture silt loam lty clay loam Nodules (w/in s near surface ( in sandy soils)	Struc 3";>2 mm) sandy soils)	<u>ture</u>
Depth Hori 0-14 in. 14-16 in. H H H S R C No R Criteria met?	Iistosol Iistic Epipedon Julfidic Odor Leducing Conditions (tests Bleyed Ledox features within 10 ir	Redox 7 Positive)	Concentra n 7.5YR 4/6 Iydric Soil	ntions / De one few and f I Indicator	ine si Concretions / Concretions / High organics Organic pan ( Hydric soils l Other: on (matrix or pores)	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile	Struc 3";>2 mm) sandy soils)	<u>ture</u>
Depth         Hori           0-14 in.         14-16 in.           14-16 in.         4           4         4           8         8           8         8           9         6           10         8           11         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           15         10           16         10           17         10           18         10           19         10           10         10           10         10           10         10           10         10           10         10           10	Istosol Istosol Istic Epipedon Julfidic Odor Leducing Conditions (tests Bleyed Ledox features within 10 ir No *abundar	Redox 7 Positive)	Concentra n 7.5YR 4/6 Iydric Soil	itions / De one few and f I Indicator	ine si Concretions / Concretions / High organics Organic pan ( Hydric soils l Other: on (matrix or pores)	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile	Struc Struc 3";>2 mm) sandy soils) matches	<u>ture</u>
Depth Hori 0-14 in. 14-16 in. H H S B R C C No R Criteria met? Recor No recor	Iistosol Iistosol Iistic Epipedon Sulfidic Odor Leducing Conditions (tests Bleyed Ledox features within 10 ir No *abundar ded data available corded data available	Redox 7 Positive)	Concentra <u>n</u> 7.5YR 4/6 Iydric Soil Iydric Soil HyDRC Aerial Other	itions / De one few and f l Indicator l Indicator lor / locati DLOGY Photograp	ine si Concretions / Concretions / High organics Organic pan ( Hydric soils l Other: on (matrix or pores)	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile	Struc Struc 3";>2 mm) sandy soils) matches	ture
Depth         Hori           0-14 in.         14-16 in.           14-16 in.         4           4         4           8         8           8         8           9         6           10         8           11         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           14         10           15         10           16         10           17         10           18         10           19         10           10         10           10         10           10         10           10         10           10         10           10	Iistosol Iistosol Iistosol Iistic Epipedon Culfidic Odor Ceducing Conditions (tests Aleyed Cedox features within 10 ir No *abundar ded data available corded data available	Redox 7 H positive) nches nce / size / cor	Concentra n 7.5YR 4/6 Iydric Soil Hydric Soil HYDRO Aerial Other water (sat	lindicator lindicator lor / locati DLOGY Photograp	ine si Concretions / Concretions / High organics Organic pan ( Hydric soils l Other: on (matrix or pores)	Texture silt loam lty clay loam Nodules (w/in s near surface ( (in sandy soils) ist and profile to Strea	Struc Struc 3";>2 mm) sandy soils) matches	ture
Depth     Hori       0-14 in.     14-16 in.       14-16 in.     Hori       H     Hori       S     R       No     R       Criteria met?     Recor       ✓     No real       Depth of Inundation     No real	Izon       Matrix Color         10YR 3/2       10YR 2/2         10YR 2/2       10YR 2/2         Iistosol       Iistic Epipedon         Julfidic Odor       teducing Conditions (tests         Sleyed       *abundar         Ledox features within 10 ir       *abundar         ded data available	Redox 7 Positive) helpes hee / size / con Depth to free	Concentra n 7.5YR 4/6 Iydric Soil Hydric Soil HYDRO Aerial Other water (sat	lindicator lindicator lor / locati DLOGY Photograp	ine si ine si Concretions / High organic: Organic pan ( Hydric soils l Other: on (matrix or pores) hs	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile to strea 	Struc Struc 3";>2 mm) sandy soils) matches	
Depth     Hori       0-14 in.     14-16 in.       14-16 in.     Hori       H     Hori       S     R       No     R       Criteria met?     Recor       ✓     No real       Depth of Inundation     No real	Izon       Matrix Color         10YR 3/2       10YR 2/2         10YR 2/2       10YR 2/2         Iistosol       Iistic Epipedon         Julfidic Odor       teducing Conditions (tests         Bleyed       tedox features within 10 ir         No       *abundar         ded data available	Redox 7 H positive) hches hce / size / con Depth to free Depth to free	Concentra n 7.5YR 4/6 Iydric Soil Hydric Soil HYDRO Aerial Other water (sat	lindicator lindicator lor / locati DLOGY Photograp	ine si ine si Concretions / High organic: Organic pan ( Hydric soils l Other: on (matrix or pores) hs Oxidized re	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile ist and profile Strea 	Struc Struc 3";>2 mm) sandy soils) matches	
Depth     Hori       0-14 in.     14-16 in.       14-16 in.     Hori       H     Hori       S     R       No     R       Criteria met?     Recor       ✓     No real       Depth of Inundation     No real	Istosol Iistosol Iistosol Iistosol Iistic Epipedon Sulfidic Odor Reducing Conditions (tests Sleyed Redox features within 10 ir No *abundar ded data available corded data available corded data available corded data available Inundated Saturated w/in 12 inches	Redox 7 H positive) hches hce / size / con Depth to free Depth to free	Concentra n 7.5YR 4/6 Iydric Soil Hydric Soil HYDRO Aerial Other water (sat	lindicator lindicator lor / locati DLOGY Photograp	ine si ine si Concretions / High organic: Organic pan ( Hydric soils l Other: on (matrix or pores) hs Oxidized ro Water-stair	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile Strea Strea Time Time Time Total and profile Strea	Struc Struc 3";>2 mm) sandy soils) matches	ture
Depth     Hori       0-14 in.     14-16 in.       14-16 in.     Hori       H     Hori       S     R       No     R       Criteria met?     Recor       ✓     No real       Depth of Inundation     No real	Istosol Iistosol Iistosol Iistosol Iistic Epipedon Sulfidic Odor teducing Conditions (tests Sleyed tedox features within 10 ir No *abundar ded data available corded data available corded data available torded data available corded data available Inundated Saturated w/in 12 inches Water marks	Redox 7 H positive) hches hce / size / con Depth to free Depth to free	Concentra n 7.5YR 4/6 Iydric Soil Hydric Soil HYDRO Aerial Other water (sat	lindicator lindicator lor / locati DLOGY Photograp	ine si ine si Concretions / High organic Organic pan ( Hydric soils l Other: on (matrix or pores) hs Oxidized ro Water-stair Local soil s	Texture silt loam Ity clay loam Nodules (w/in s near surface ( in sandy soils) ist and profile st and profile Strea 	Struc Struc 3";>2 mm) sandy soils) matches	ture
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Project Location	Rockaway Beach	Co	ounty, Sta		amook, Oregor			
Applicant	Troy Johns				, R10W, SE 1⁄4	of Sec. 29		
Transect / Plot	SP13	Date & Time Date & Time Plant Commur						
Recent Weather	Sunny and warm			nunity <u>coas</u>	tal woodland			
Plot Location	Paired SP12							
Has the soil, veget	ation or hydrology been si	gnificantly di	sturbed?	No				
			VEGE	<b>FATION</b>				
Trees		% Cover	70	ŀ	Ierbs		% Cover	60
Species	Status	Percent	Dom	Species		Status	Percent	Dom
Alnus rubra	FAC	30	~	Lysichiton an	ıericanum	OBL	60	~
Tsuga heterophyllo		20	1					
Picea sitchensis	FAC	20	✓	bare ground		40%		
Sapling / Shrub		% Cover	70					
Rubus spectabilis	FAC	70	✓					
Percent of dominar	nt species that are OBL, F.	ACW, FAC:	8	80%				
Criteria met?	Yes							
			SC	DILS				
Map Unit Name:	Chitwood-Knappa silt l					nat poorly draine		ined
Taxonomy:	Aquandic Dystrudepts	and Andic D	ystrudept	<u>s</u>	On hydric soil	s list?	<u>No</u>	
Depth Horiz	zon Matrix Color	Redox	Concent	trations / Deplet	ions*	Texture	Struct	ture
0-2 in.	10YR 2/1			none		silt loam	contains c	rganics
2-14 in.	7.5YR 3/1	5YR	3/4 comr	non, fine to mee	dium	silt loam		
14-16 in.	10YR 2/2		5YR 3/4	common, fine		silt loam		
		Н	vdric So	il Indicators		·····		<del></del>
I-I	istosol		<b>,</b>		Concretions	/ Nodules (w/in	3".>2 mm)	
*******	istic Epipedon					cs near surface (		
	ulfidic Odor					(in sandy soils)		
	educing Conditions (tests	nositive)				list and profile		
	leyed	positive			Other:	inst and prome.	matches	
	edox features within 10 in	ches						
Criteria met?			trast / co	lor / location (n	natrix or pores	)		
				OLOGY		,		
Decen	had data available					C+		
	ded data available		_ Aerial _ Other	Photographs		Strea	ım gauge	
Depth of Inundatio		Depth to free			none	_ Time		
Depth to Seepage		Depth to free	water (sa			Time		
	Inundated					root channels		
	Saturated w/in 12 inches					ined leaves		
	Water marks					survey data		
	Drift lines			-		eutral Test		
	Sediment patterns				Other			
Outralia a 10	Drainage patterns						,,,,	······································
Criteria met?	Yes							
Wetland?	Yes Staff:		Laura I	Miller and Nanc	y Rorick			
Comments:								

APPENDIX E

A DATA DE LA DESTRUCTION DE LA	۰.
Construction of the owner owne	5





AGENCIES WILL ASSIGN NUMBERS

Application Form DEPARTMENT OF STATE LANDS

AND

Oregon Department of State Lands No

**US Army Corps** Of Engineers (Portland District)

AND

DATE STAMP

RECEIVEL

MAY 2 6 2010

41607-RF

SEND	ONE	SIGNED	COPY	OF	YOUR	APPL	ICATION		

OR

US Army Corps of Engineers: District Engineer ATTN: CENWP-OD-GPPO Box 2946 Portland, OR 97208-2946 503-808-4373

Corps Action ID Number

DSL - West of the Cascades: State of Oregon Department of State Lands 775 Summer Street, Suite 100 Salem, OR 97301-1279 503-378-3805

2009-357

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

Send DSL Application Fees to: State of Oregon Department of State Lands PO Box 4395 Unit 18 Portland, OR 97208-4395 (Attach a copy of the first page of the application)

# (1) APPLICANT INFORMATION

360-600-4425 Business Phone # Name and Address Troy Johns Home Phone # 14801 NE 13th Circle Fax # Vancouver, WA 98684 troyajohns@gmail.com Email 503-449-4372 Business Phone # Nancy L. Rorick Authorized Agent Home Phone # **Rorick Environmental Services** Name and Address Fax # 37552 SE Rachael Drive Check one nrorick@yahoo.com Email Sandy, OR 97055 X Consultant Contractor Business Phone # Property Owner Home Phone # Name and Address Fax # If different from above Email (2) PROJECT LOCATION Legal Description (attach *tax lot map*\*) Street, Road or Other Descriptive Location Quarter/Quarter Section East of Lake Lytle in northern Rockaway Beach, at the south Township Range ends of NE Tillamook and NE Necarney Avenue. SW 1/4 of the SE 1/4 10W 29 2N Tax Lot #2 Tax Map # County In or near (City or Town) T2N R10W, 2N 10 29DC 5201 Tillamook Rockaway Beach Longitude (in DD.DDDD format) Latitude (in DD.DDDD format) River Mile (if known) Wetland/Waterway (pick one) 123° 55.991,5' W 45° 37.499,0' N Wetland n/aFrom Highway 101 turn east on 12th Street, cross Lake Lytle and turn right (south) on either NE Tillamook Avenue or Directions to the site Necarney Avenue.

<sup>&</sup>lt;sup>1</sup> If applicant is not the property owner, permission to conduct the work must be attached.

<sup>&</sup>lt;sup>2</sup> Attach a copy of all tax maps with the project area highlighted.

<sup>\*</sup> Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.

n - a - a - a - a - a - a - a - a - a -	(3) PROPOSEI	D PROJECT INFORMATION			
Туре:	Fill X Excavation (remova	l) X In-Water Structure Maintain/R	epair an Existing Structure		
Brief Description:					
Fill					
Riprap	Rock Gravel X	Organics Sand X Silt X	Clay X Other:		
Wetlands	Permanent (cy) 287 Impact Area in Acres 0.17	Temporary (cy)         Image: Constraint of the state of the sta	Total cubic     2,115 cy       yards for project     (including outside       OHW/wetlands)		
Waters below OHW	Permanent (cy) 0 Impact Area in Acres 0	Temporary (cy)     0     Dimensions (feet)     L'   W'	Total cubic yards for project (including outside OHW/wetlands)		
Removal					
Is the disposal area upland Are you aware of any <u>stat</u> Are you aware of any <u>Cui</u> Is the project site within a		t site?	Total cubic yards for project (including outside OHW/wetlands)     7,789 cy       Total cubic yards for project (including outside OHW/wetlands)		
(	4) PROPOSED PROJ	ECT PURPOSE AND DESCR	IPTION		
Purpose and Need:					
Provide a description of t body (e.g. city or county g	the public, social, economic, or enviro government), as appropriate.*	onmental benefits of the project along with any sup	porting formal actions of a public		
A. Statement of Project Purpose for Lake Lytle Estates The project purpose is to construct and market 85 economically-viable, moderately-priced (\$250,000 per unit)					

The project purpose is to construct and market 85 economically-viable, moderately-priced (\$250,000 per unit) LEED Platinum Certified homes at the Lake Lytle Estates subdivision in Rockaway Beach, Oregon. The homes and subdivision are planned and constructed in a manner consistent with the City of Rockaway Beach's Comprehensive Plan and other local development requirements. The proposed homes will be single-level, moderately-sized in the 1350 to 1600 square-foot range with the possible exception of 6 lots that are sized to accommodate homes in the 1600 to 1900 square-foot range. The homes will be sustainable and marketed to middle-income retirees, single families and second-home owners.

## B. Statement of Project Need for Lake Lytle Estates

The current housing market on the Oregon coast and elsewhere in the state is slow and particularly so for lots without constructed housing. However, the market remains viable for homes that are moderately priced (half the cost of many available units) and environmentally sustainable. The target markets for these types of homes are middle-income retirees, single-family residents and second-home owners. This is the market niche targeted by the applicant.

This document provides support for the statements made above. In addition, accompanying this summary are three news articles. One is from the Oregonian, commenting on the baby boomer market in the Portland Metro Area. One is from Oregon Coast Properties, a broker-associated website. And the third is "Oregon coast real estate", from a website provided by the Oregon Coast Real Estate Multiple Listing Service. All of these articles highlight the demands for the very type of housing that the developers of Lake Lytle Estates propose.

### C. Applicant Information

Troy Johns is the permit applicant. Mr. Johns and his business partner, Robert W. Schmeling, will develop the lots on the property. The two men jointly own and manage Sustainable Oregon Construction, LLC (SOC); the company that will build and market the houses in the Lytle Estates. SOC is a real estate investment company based in Vancouver, Washington at 1004 W. 13<sup>th</sup> Street Vancouver, WA. SOC is committed to LEED Certified "green" buildings on the Oregon Coast. The company has over 60 years of member experience in real estate investment in Clark County Washington.

## D. Information Supporting Applicant's Statements of Purpose and Need

## 1. Market Demand for Housing

SOC is proposing to provide homes that are in the mid-price range (around \$250,000), LEED certified, and mostly sized at less than 1600 square feet. The intent of the project is to fulfill a demonstrated need in Rockaway Beach for modern, attractive homes that are affordable. Most homes currently available in the area are either higher-priced large homes (often \$500,000 per unit or more) or older, less attractive homes in need of repair. LEED certification will also provide a market advantage for Lake Lytle Estates: currently there are only three LEED certified homes on the Oregon Coast and those are located in Lincoln City and are substantially more expensive than the homes proposes for Lake Lytle Estates (LEED Projects and Cases Studies 2009).

The applicant proposes to overcome the current slow housing market by building homes for which there is a documented demand. Hence, the Lake Lytle Estates proposal will address the demand forecasted in the local comprehensive plan. The purpose of this development is not simply to add to the surplus of lots for sale on the Oregon coast but actually to build and market homes on the lots. In other words, the purpose is to sell constructed homes and not simply market lots requiring substantially more investment before becoming usable properties. The selected market for such homes is primarily retiring and downsizing baby boomers.

A great deal has been said in the media about problems with the housing market. On the Oregon coast, most new homes and properties are upper-end (that is, they come with a large price tag and large physical footprint). Many pre-development properties were bought at an acreage-based price that presumed the creation of lots selling in the \$125,000-\$175,000 range, or higher, for the eventual construction of homes selling from \$500,000-\$1,500,000. It is properties priced in these ranges in the Pacific Northwest that have been hit the hardest by the downturn in housing. The sale of housing (not lots) has picked up in the last 3-5 months. However, the sales that are occurring are homes priced at under \$250,000. Lots simply are not selling in any great number, primarily because the prices asked for existing, finished lots have the high cost of raw land that were built into the lots by property purchases contracted prior to the downturn. Homes on these lots are

encumbered by the same pre-downturn raw land prices. The absorption of these lots and higher-priced houses will be slow as the economy slowly recovers.

Lake Lytle Estate will not compete with the existing new-home and vacant-lot inventory on the Oregon Coast. Lake Lytle Estate will take aim at the demand for small, lower-priced new homes (not lots) that are being purchased primarily by down-sizing and retiring baby boomers. There is a dearth of subdivisions with new homes aiming at this market anywhere on the Oregon Coast. Homes and lots available presently in this area are predominantly aimed at the portion of the market seeking larger, luxury oriented summer-homes (often referred to as "McMansions"). The real demand on the coast is for something else more down-to-earth and more in line with the kind of housing styles that are planned for Lake Lytle Estates. Again, the homes will be provided by the very same principals who have developed the lots.

The project is divided into four phases (figures 6 and 7). Construction of the first phase is projected to begin in the summer of 2010. The first phase of construction will include the area identified as Phase 1 on the map (figures 6 and 7), the installation of all roads and utilities, and the construction of the wetland mitigation site. The remaining phases will be developed as justified by market demand.

## 2. Business Strategy

SOC positioned itself, before the downturn that started in 2006, by leaving the market early and concentrating on baby boomers desired locations. As one third of the population retires over the next 10 years, they intend to relocate to "vacation destinations", such as Rockaway Beach located within two hours of family and friends in Portland and Salem. In addition to the importance of the project's location, SOC also intends to bring LEED Certified Platinum homes under 1600 square feet to the market for under \$250,000.

## 3. Competitive Edge

There are many areas where SOC has a competitive edge over other developers marketing lots purchased and developed during the past real estate "bubble". A few of these areas are listed below.

- Lake Lytle Estates was first purchased in 2003 for \$500,000. Similar property would have gone for ten times this amount in subsequent years. Construction costs per lot at Lake Lytle Estates are around \$18,000. This makes our lot costs around \$22,000 per lot. With lot prices this low, SOC can spend 30% more on the structure to gain LEED Platinum certification, while maintaining home prices under \$250,000.
- SOC installs double drain pipe, dimpled drain mat and drain rock around foundation of home to insure there is less than .04% settling to protect the Hydronic, zonal in floor heating system. This is key to "green" building allowing heated water to be pumped through the floor.
- Insulated Concrete Forms (ICF) are used to provide maximum strength and resistance to damage caused by water or insects. The foam concrete forms also provide significant insulation value. All the walls in the home are made of 12 inch thick concrete. There is only a hand full of homes built to this standard on the entire Oregon Coast.
- SOC uses a high performance breathable building wrap and integrated double layered flashing system from Fortifier Building Systems. This system is unmatched anywhere in the state of Oregon.
- 1/2-inch thick fiber cement lap siding with a 50-year warrantee and cellular PVC trim boards with a 30-year warrantee mean savings. Sustainable may mean energy savings, but it also means durability.
   Durability is another important part of getting LEED certification.

- One of the most wasteful parts of a home's exterior is the deck and porch systems. SOC uses only reinforced concrete posts and trec decking systems. Once again, durability is important in areas that see a lot of precipitation.
- $\circ$  Tax credits provided to buyers for this type of home are as high as \$25,000.

## 4. Competition

While there are many homes on the market, there are no new homes as close to the beach, near a lake, with anywhere near our quality for under \$250,000. SOC does not feel it has any type of competitor besides older homes that are much farther from the beach. The nearest competitor is The Villages at Cascade Head (VCH) in Lincoln city. Because VCH builds LEED Certified homes about the same size as SOC's units starting at \$599,000, they would not be competition unless their prices are cut in half.

## 5. Market Trends

Several trends have been reported supporting the beginnings of a turn around in the Oregon real estates market. They include:

- Baby boomer retirement within two hours of the Portland and Salem metro areas
- Demand for LEED certification homes from buyers
- Tax credits for sustainable architecture
- Low interest rates
- Lower rate federal bonus rates for LEED certified homes
- The growing need for one-level houses among the older home buying community

## 6. Market Growth

The real estate market has seen little to no growth since late 2007. Many communities sit idle with no sales because the seller owes more on the property than he/she can sell them for. Most of these projects will see short sales by the seller in order to move the product. A short sell is when the mortgage holder (with the consent of the lender) sells a property for less than is owed. This will have a negative effect going forward on house prices. This short sale price will set the new bar for the market going forward. Where the market was selling at nearly \$350 per square foot, the new price per square foot is currently around \$305 per square foot for a non LEED certified home. Rockaway is highly connected to the Salem/Portland markets. As these markets pick up, so will the Oregon Coast but SOC expects the price per square foot in Rockaway to drop to near \$200.

## 7. Market Needs

- LEED Platinum certified homes for under \$250,000
- Single storied homes for older and retired buyers
- Affordable homes for retirees, families and second home owners

## 8. Market Segmentation

SOC has segmented our target market for this community as middle to upper-income families and retirees with a household income of \$80,000 per year and up. Most homes in this community will be under \$250,000 allowing a house payment at under 21% of income.

## 9. Market Analysis

The current housing market is poor. Year over year and month over month, sales have slumped and home prices have dropped. The only bright spot is the home market under \$250,000. As the market rebounds and retirees from Portland and Salem are increasingly able to sell their homes they will buy in "vacation destinations" such as Rockaway.

## 10. Marketing Strategy

SOC will concentrate on the Salem/Portland markets advertising in publications of interest to baby boomers such as urban newspapers and localities frequented by baby boomers such as golf courses. SOC will also use the Regional Multiple Listing Service in the Portland / Salem areas and on the coast.

## 11. Cost Breakdown and Pricing Strategy

Purchase price:	\$500,000
Construction costs:	\$1,500,000
Lot cost sub total:	\$22,727
Home construction cost:	\$175,000
Total cost to build home with lot	\$197,727
Profit per house	\$52,273

Prices vary depending on lot size and location but includes house plans, construction and other costs. The table below shows pricing based on the size of the house. This table also shows that SOC can profitably construct houses within the projected market price in Rockaway Beach of less than \$200 per square foot.

Size	Market Price	Price per square foot
1350 sq foot	\$235,000	\$174
1425 sq foot	\$235,000	\$166
1455 sq foot	\$239,000	\$164
1550 sq foot	\$246,000	\$159
1600 sq foot	\$240,000	\$15

## E. Public Benefits From the Lake Lytle Estates Project

## 1. Tax Revenues

The current tax revenue provided by tax lot 5201 to the county is \$1,209 per tax year (Tillamook County Tax Assessor 2009). Assuming tax revenue of \$1,100 per residence (amount based on adjacent properties) the amount of county property taxes for a total of 85 lots would increase the annual tax revenue to \$92,400.

## 2. Contribution to the Local Economy

The total development cost of the property is \$3.1 million. The land development would provide 1,000 manhours of work at a wage of \$35 per hour. The construction of each house would provide 600 man-hours of labor, and construction costs will be around \$130,000 per house. The addition of this number of jobs in the Rockaway Beach area will help stimulate local economic growth.

## F. Compatibility with State Land-Use Laws

All construction proposed within the state of Oregon must be constructed in a manner consistent with the local comprehensive plan and land use regulations. Although compliance with local land use does not require issuance of a state removal-fill permit, such compliance is required to enable DSL to issue a permit. Oregon's land use process ensures that the policy choices of the elected officials are set out in the local comprehensive plan and are implemented by the comprehensive plan policies and other land use requirements. Such policy choices include determining where and how development can occur. That is, within their authorized planning jurisdiction, the elected officials determine which lands are suitable for use as commercial, residential and industrial development and how such development will be conducted and the intensity of such developments. As shown below, the proposed project is consistent with the local land use laws.

The proposed project is located within the City of Rockaway Beach's Urban Growth Boundary (UGB) and is zoned Residential / Resort. The development is consistent with the State of Oregon's land use planning goals and the City of Rockaway's Comprehensive Plan (2007).

The project was designed with 85 lots to meet State and City land use requirements for lands located within the UGB. Statewide Planning Goal 14 specifies the following for lands located within the UGB (Oregon Department of Land Conservation and Development 2009).

• **Goal 14:** "Land within urban growth boundaries *shall be considered available for urban development* consistent with plans for the provision of urban facilities and services."

Response: The project is located entirely within the UGB of Rockaway Beach.

• **Goal 14:** "The size of the parcels of urbanizable land that are converted to urban land should be of adequate dimension so as to *maximize the utility of the land resource and enable the logical and efficient extension of services to such parcels.*"

**Response:** The project has a density of 7.59 dwellings per acre (after subtracting for roads and open space). This maximizes the available land for housing while impacting only 0.17 acres of wetland. The high density housing makes efficient use of roads and utilities. A lower dwelling-unit density would require more road construction and increase the total acreage of land developed for residential use.

• **Goal 14:** "Comprehensive plans and implementing measures for land inside urban growth boundaries should encourage the *efficient use of land and the development of livable communities.*"

**Response:** The project by being a higher density development makes efficient use of the upland property on the site while avoiding wetland impacts. The proposed project will be a livable community that features mid-priced LEED certified homes.

# G. Compatibility with the City of Rockaway Beach's Comprehensive Plan

The City's Comprehensive plan follows Goal 14 in requiring high density and cluster development to preserve open space. The project meets the following stated goals from the City's Comprehensive plan.

- The Comprehensive Plan identifies a need for mid-income level homes (p. 37). The houses in the proposed development will be less than 2,000 square feet in size and priced around \$250,000.
- The Comprehensive Plan identifies a need for the development of parks in the vicinity of Lake Lytle: "Land that becomes available for public ownership through tax foreclosure or other means shall be

considered for potential park, open space or recreation use, especially in the areas around Lake Lytle and Crescent." The western portion of the property (tax lot 5203, 16.7 acres) will be made available for donation as open space to the City or a group interested in land conservation.

- The Comprehensive Plan promotes the conservation of open space. In addition to setting aside areas of open space in separate tax lots, the wetlands will be protected by a five-foot easement at the back of all lots to serve as a walking path. The wetlands will be marked by a simple rope fence that separates the residential lots from the wetlands. Signs will be posted that promote the value and preservation of wetlands.
- The Comprehensive Plan encourages cluster development, particularly in the Lake Lytle Area (pages 12 and 14). Cluster development is the concentration of high density development in a small area to reduce the development footprint and to promote the preservation of open space. The proposed project has a density of 7.59 units per acre and provides for the preservation of 4.04 acres of open space within the project boundary. All open space will be contained within tax lots separate from the residential lots.
- The Comprehensive Plan promotes energy conservation (p. 13). LEED certification provides for at least a 30% reduction in energy costs over conventionally constructed homes.
- The Comprehensive Plan (p. 36) identifies a projected need for 175 to 600 new housing units over the next 20 years. The project will provide 85 housing units.
- The Comprehensive Plan (p. 10) identifies a need to "enhance the City's attractiveness as a retirement community." The project will provide attract, mid-income level housing in a planned development that will be attractive to senior citizens as well as those seeking a second home.
- The Comprehensive Plan (p. 38) states: "Housing development shall be located within the urban growth boundary established in this plan to insure that efficient, logical extensions of urban services such as sewerage, water, roads and fire and police protection will adequately serve new development." The project engineer has worked with the City to develop a road layout that allows for a logical extension the existing road layout. This layout provides for traffic circulation and easy access for emergency vehicles. The project is also consistent with the need identified by City Staff for a connector street running north south through Rockaway Beach other than Highway 101.
- The project is located outside of Special Area (SA) Zone Wetlands Associated with Lake Lytle. SA Zone Wetlands are wetlands defined by the City as those needing extra protection. The location of the SA Zone Wetland relative to the proposed project is shown on figure 5 prepared by the project engineer from HLB-Otak. Jay Sennewald, Rockaway Beach City Planner, has concurred with HLB-Otak's determination that the proposed project is located outside of the SA zone wetland. (page 25, City of Rockaway Beach Comprehensive Plan).

## H. References

City of Rockaway Beach Comprehensive Plan, 2007, available online at: <u>http://www.rockawaybeachor.us</u>.

Oregon Department of Land Conservation and Development, 2009, http://www.oregon.gov/LCD/goals.shtml .

Tillamook County Tax Assessor, 2009, http://www.co.tillamook.or.us/

United States Green Building Council: LEED for Homes, 2009, available online at: <a href="http://www.usgbc.org/LEED/homes">www.usgbc.org/LEED/homes</a> .

United States Green Building Council: LEED Projects and Case Studies, 2009, http://www.usgbc.org/LEED/Project/RegisteredProjectList.aspx

#### Project Description:

Please describe in detail the proposed removal and fill activities, including the following information:

- Volumes and acreages of all fill and removal activities in waterway or wetland separately
- Permanent and temporary impacts
- Types of materials (e.g., gravel, silt, clay, etc.)
- How the project will be accomplished (i.e., describe construction methods, equipment, site access)
- Describe any changes that the project may make to the hydraulic and hydrologic characteristics (e.g., general direction of stream and surface water flow, estimated winter and summer flow volumes.) of the waters of the state, and an explanation of measures taken to avoid or minimize any adverse effects of those changes.

The applicant is proposing to construct an 85-lot, residential subdivision on 18.85 acres (tax lot 5201) of land east of Lake Lytle in Rockaway Beach. The applicant also owns tax lot 5203 (16.7 acres) west of the project site. The property is zoned R-R. The project will involve the construction of 3,750 feet of road. The subdivision will be connected to city sewer and water.

#### Table 1 Site information.

	T2N, R10W, SE 1/4 of Sec. 29
Legal location	
Tax map	Tax lot 5201 on tax map T2N R10W
Latitude / Longitude	45° 37.499,0' N, 123° 55.991,5' W
USGS Quadrangles	Garibaldi (1985) and Nehalem (1985)
Zoning	R-R (residential / resort)

 Table 2 Project site summary.

	Area
Rights-of-Way	3.61 acres
Phase I Lots	3.10 acres
Phase II Lots	3.26 acres
Phase III Lots	3.58 acres
Phase IV Lots	1.26 acres
Open Space Tracts	4.04 acres
Site Total	18.85 acres

The table below summarizes the permanent wetland impacts. There are no temporary wetland impacts. The fill materials include sand, silt clay and gravel. The construction entrance will be from Necarny Street and the staging area is shown on figure 9. The site will be graded during the summer of 2010. The equipment used to prepare the site for development will consist of backhoes, bulldozers and excavators that are typically used for this type of work.

Table 3 Summary of project impacts.

Table 5 Summary of project impact	
Fill in wetlands	
Fill volume within wetlands	287 cy
Fill volume within uplands	1,828 cy
Total fill volume for the entire project	2,115 cy
Fill area within wetlands	7,553 sf
Fill area within uplands	90,585 sf
Fill area for the entire project	97,033 sf

4 cy
7,785 cy
7,789 cy
216 sf
110,765 sf
110,549 sf

There are two wetland swales associated with seasonal streams that cross the project site from east to west. The western entrance (Tillamook Avenue) crosses both of these swales. The middle entrance (Francis Street) crosses between two wetland areas that are part of the northern most swale. The eastern entrance (Necarney Avenue) crosses the southern swale; the northern swale does not extend this far to the east. Other than these road crossings and a few very small depressional wetlands, the project has been designed to avoid all wetlands associated with the streams. Figure 8 is a schematic of the fish passable box culvert that will be used at all stream crossings.

The stormwater plan prepared by HLB-Otak utilizes vegetated bioswales to remove sediments and contaminants typically associated with residential development. Water from the site will discharge to Lake Lytle. The storm-water plan does not include a detention component due to the proximity of the Pacific Ocean. Water from the project drains into Lake Lytle, Lake Lytle drains into Crescent Lake, and Crescent Lake discharges, through a short stream crossing under Hwy 101, to the Pacific Ocean.

1	Is any of the work already complete?	Yes	No X	If yes, please describe the completed work.
	Is any of the work already complete?			Interview of the information requested in supplemental Fish Habitat or

In addition, for fish habitat or wetland restoration or enhancement activities, complete the information requested in support Wetland Restoration and Enhancement form.

#### **Project Drawings**

State the number of project drawing sheets included with this application:

A complete application must include a location map, site plan, cross-section drawings and recent aerial photo as follows and as applicable to the project:

1. Project location map.

2. Topographic map.

- 3a. Tax map 2N 10.
- 3b. Tax map 2N 10 29DC.
- 3c. Updated tax map prepared by HLB-Otak.
- 4. Aerial photograph.
- 5. SA Zone Wetland.

6. HGM class of existing wetlands, wetland impacts and proposed compensatory wetland mitigation.

- 7. Cowardian class of existing wetlands, wetland impacts and proposed compensatory wetland mitigation.
- 8. Fish passable culvert

9a and 9b. Grading plan.

- 10a and 10b. Lot layout.
- 11a -11h. Cross sections. Cross section wetland C.
- 12. Wetland mitigation grading plan east mitigation area
- 13. Wetland mitigation grading plan west mitigation area
- 14. Cross sections of east and west mitigation sites.
- 15a 15d. Erosion control notes.
- A1. Alternative site locations
- A2. Alternative site location 1.
- A3. Alternative site location 2.
- A4. Alternative site location 3.
- A5. Alternative site location 4.
- A6. Alternative lot layout 1.

<ul><li>A7. Alternative lot layout 2.</li><li>A8. Alternative lot layout 3.</li><li>A9. Alternative lot layout 4.</li></ul>							
		etc., enter a wetland or waterway? e and show the discharge location on t	Yes the site plan.	No X			
Estimated project sta	irt date:	May 2010	Estimated projec	ct completion date: N	November 2010		
	(	5) PROJECT IMPACT	S AND ALT	ERNATIVES			
Alternatives An							
Describe alternative sites and project designs that were considered to avoid or minimize impacts to the waterway or wetland. (Include alternative design(s) with less impact and reasons why the alternative(s) were not chosen. Reference OAR <u>141-085-0025</u> (3(j)) and <u>141-085-0029</u> (4through 6) for more information*). David Jones of Pete Anderson Realty, Inc. in Rockaway Beach provided a list of four currently available alternative properties in the Rockaway Beach criteria that met the following criteria: vacant land, greater than one acre, and zoned residential.							
Table 4 Alterna	ative site loc		T Man	Tax Lots	Size (acres)		
Alternative #	Location		Tax Map	Tax LUis	Size (acres)		
1	Garibaldi		1N1021AB	1500 and 1503	1.77		
2	Rockaway	Beach near Crescent Lake	2N1029AC	100	1.4		
3	Wheeler (I	Brighton)	2N1009BB	101	2.33		
4	Bay City		1S1002CC	2500, 2501, 2502, 2503, 2504, 2506, 2507	1.72		
Preferred alternative	Lake Lytle	e Estates in Rockaway	2N 10 2N 10 29DC	5201 4200	18.85		

## Alternative Site 1 (Garibaldi)

Alternative site 1 is a 1.77-acre parcel located on a hill slope at the north end of Garibaldi. Available maps suggest that wetlands are not present on this alternative site. The National Wetland Inventory map (USFWS) does not show wetlands on the property nor are the mapped soils, the Templeton-Klootchie complex, listed as hydric soils.

The site's location on a 30% slope limits its building potential. The NRCS rates the soils as very limited for roads due to the steep slopes and low soil strength, and as very limited for excavation due to steep slopes and the tendency of cut banks to cave. In addition, landslide hazards maps prepared by Hofmeister et al. (2002) show

that this site is at risk for landslides. The site contains areas rated as "very high hazard" and it is a potential deposition zone for landslide debris.

Data for alternative s Soils	29D Templeton-Klootchie complex, 5-30% slopes Not (south half of site) Not				
	29E Templeton-Klootchie complex, 30-60% slopes	Not			
	(north half of site)	hydric			
National Wetland	No wetlands				
Inventory					
Utilities	All are available	-10-M			
Zoning	R1				
Location	Within the City Limits of Garibaldi				

## Alternative Site 2 (Rockaway Beach near Crescent Lake)

Alternative site 2 is a 1.4-acre site located on a hillslope east of Crescent Lake in Rockaway Beach. Available maps indicate that the site does not contain wetlands. The soil mapped on the site, the Klootchie – Necanium complex, is not a hydric soil (NRCS 2006). The NWI shows no wetlands on the property (USFWS). There is a well on the site, but the property does not have sewer, electricity or city water. The lack of a sewer is a concern. The NRCS rates the site's soil as "very limited" for septic tank absorption fields due to steep slopes and slow water movement, and as very limited for the construction of local roads and shallow excavations due to slopes of up to 60% and low soil strength. NRCS ratings also indicate cut banks on shallow excavations are subject to caving. Hofmeister et al. (2002) show that Alternative Site 2 is in a Land Slide Hazard Zone due to slopes of 50% to 60% and that the property is located in an "extremely high hazard transition zone." The transition zone is the area of the landslide between the source area (upslope) and the deposition area (downslope).

Soils	20E Klootchie - Necanium complex, 30-60% slopes	Not hydric		
National Wetland Inventory	No wetlands			
Utilities	Well on site; no sewer, electricity or city water.			
Zoning	R2			
LocationOutside of the City Limits of Rockaway Beach, but Urban Growth Boundary.				

## Alternative Site 3 (Brighton)

Alternative site 3 is a 2.33-acre property off of Highway 101 in Brighton, an unincorporated area north of Rockaway Beach. The site has steep slopes of 25% to 30%. Alternative Site 3 does not appear to have any wetlands. The NWI does not show any wetlands on the property and the mapped soil (the Templeton-Klootchie) is not listed by the NRCS as hydric (NRCS 2006). The property does not have sewer. Installing a septic system would be problematic because the NRCS rates the mapped soils as very limited for septic tank absorption fields due to the slope, slow water movement and shallow depth to bedrock. The Brighton site is located outside of the landslide hazard zone (Hofmeister, et al, 2002).

Data for alternative site Soils	29D Templeton-Klootchie complex, 5-30% slopes	Not hydric	
National Wetland Inventory	No wetland		
Utilities	Well on site; no sewer		
Zoning	RR		
Location	Unincorporated Tillamook County.		

#### Alternative Site 4 (Bay City)

The 1.72-acre site is located within the City Limits of Bay City on the west side of Highway 101. The NWI does not show any wetland on the property. However, the soils map indicates that hydric soils may be present. The Hebo portion of the mapped soil, the Ginger Hebo complex, is listed by the NRCS as a hydric soil. The nearly level site lies at an elevation of 18 feet. The entire site is located within tsunami hazard zone mapped by Oregon Department of Geology and Mineral Industries (Priest, 1995).

Data for alternative site Soils	96B Ginger-Hebo Complex, 0 to 5% slopes	Hebo is a hydric soil.		
National Wetland Inventory	No wetlands on site.			
Utilities	Water and sewer available			
Zoning	Moderate intensity			
Location	Within the City Limits of Bay City			

## Preferred Alternative

The preferred alternative is the proposed Lake Lytle Estates property. The 18.85-acre project site is located in Rockaway Beach east of Lake Lytle. The site is preferred because.

(1) **Available Utilities** – The preferred alternative has electricity, sewer and city water. Site 2 lacks sewer, electricity and City water; and site 3 lacks city sewer. The lack of sewer is a detriment for sites 2 and 3 as the mapped soil units are rated "very limited" for septic drain fields.

(2) Site Size – The applicant is proposing to construct an 85-lot subdivision on 18.85 acres. The largest of the other available properties is 2.33 acres. This would greatly reduce the size of the proposed development.

(4) **Landslide Hazards** – Properties 1 and 2 are in high hazard zones for landslides. The proposed project site is preferred over properties 1 and 2 because it has a much lower landslide risk. The eastern portion of the property is rated as a "low hazard depositional zone." Sites 1 and 2 are rated as having "very high" and "extremely" hazard zones.

(5) **Tsunami Risk** - Alternative Site 4 is located within the tsunami hazard zone. The preferred alternative is located outside of the hazard zone.

The proposed project site is the preferred alternative because it has all the utilities, lacks steep slopes, has a much lower risk for landslide hazards, and is located outside of the tsunami risk zone. It is also large enough to support the larger scale development that the applicant is proposing.

### Alternative Site Layouts

In the previous submittal of the permit application, the project team evaluated three alternative lot layouts for the Lake Lytle Estates project. Both the DSL and the City staff had concerns with the preferred alternative 3 (figure A8). Therefore, the project team developed alternative 4 to address these concerns (figure A9).

The final design conforms to the City of Rockaway Beach's Comprehensive Plan, City Code, and recommendations of City staff. The project is designed with the following constraints.

- The road widths are specified in City code. The two collector streets, Necarney Avenue and NE Tillamook Avenue, have a specified width of 50 feet. The rest of the streets within the project area are residential streets and they have a specified width of 40 feet.
- The City required that Necarney Avenue span the length of the project site and stub out at the south property line. The City's requirement to connect the development to the existing street network will provide for safe and efficient access and egress for residents and emergency vehicles.
- All development was to be located outside of the SA zone wetlands (figure 5).
- The City's Comprehensive Plan (p. 35) recommends a density of around 8 dwelling units per acre.
- The Oregon Department of State Lands required that all wetlands located within residential tax lots be considered as impacted wetlands.

	Wetland Impact (acres)
Alternative 1	0.23
Alternative 2	0.23
Alternative 2	0.23
Alternative 4	0.23

## Alternative 1 (figure A6)

This was the preferred alternative in the original submission. This option had several tax lots that contained wetland within the lot boundaries. The total wetland impact for this alternative was 0.23 acres.

## Alternative 2 (figure A7)

The project engineer altered the tax lot boundaries to minimize the amount of wetland contained in the tax lots. This reduced the wetland impact to 0.21 acres.

#### Alternative 3 (figure A8)

This was the preferred alternative in the second submission. The project engineer reduced the wetland impact to 0.17 acres by removing Francis Street and substituting narrow driveways to provide lot access. This reduced the wetland impact to 0.17 acres. However, the City and DSL both objected to this alternative. The City wanted Francis Street to connect Tillamook Avenue to provide better access for emergency vehicles. The DSL objected to alternative 3 because both Necarney Street and Tillamook Avenue stubbed out to the property to the south. The DSL believed that having two entrances to the property to the south would result in unnecessary wetland impact.

## Preferred Alternative 4 (figure A9)

In response to the City's objection, the project engineer restored Francis Street to the design. The City granted a variance to narrow a 150-foot length of Francis Street from 30 to 20 feet to reduce wetland impact. Alternative 4 has the same amount of wetland impact (0.17 acres) as Alternative 3.

Alternative 4 addresses the DSL concerns about the two access points to the property to the south. The project team negotiated with City Staff to remove the south access point from Tillamook Avenue. Therefore, the only proposed access to the south is Necarney Street. The City would like Necarney Street to eventually serve as an alternative north-south access route to Highway 101. As an added option, the stub out from Necarney Street has an extra 10 feet of ROW on either side of the road (figure 9b). This extra width will enable the alignment of Necarney Street to veer slightly east or west as needed to avoid or reduce wetland impact.

The wetland impacts will be mitigated on site by the creation of 13,320 square feet (0.30 acres) of wetland. This is worth 8,820 square feet (0.20 acres) of wetland mitigation credit under the DSL's ratio of 1.5:1 for wetland creation credits.

### Fewer lots

The DSL requested that the applicant address the option of having fewer tax lots. This would make minimal changes to the wetland impact because 4,213 square feet, 60%, of the wetland impact is due to the construction of Tillamook Avenue and Necarney Streets. Reducing the number of lots would also decrease the dwelling-unit density. This is contrary to the City of Rockaway Beach's Comprehensive Plan which recommends 8 dwelling units per acre (after subtracting for roads and open space). Higher density development has the effect of reducing the amount of land that is converted to residential use and streets. Concentrating residential areas reduces pressure to expand the UGB to accommodate growth, thus protecting land outside the UGB from development. Under the preferred alternative four, 4.04 acres of open space will be preserved within the project boundaries and the western 16.7 acres of the applicant's property (tax lot 5203 on figure 3C) will remain undeveloped.

## References

Hofmeister, R. Jon, et al., (2002) Hazard Map of Potential Rapidly Moving Landslides in Western Oregon GIS Layer for Local Governments in Implementation of Senate Bill 12 (1999) Oregon Department of Geology and Mineral Industries Interpretive Map Series IMS-22. The maps are available online at: http://www.coastalatlas.net/index.php?option=com\_wrapper&Itemid=28

NRCS, 2006, Hydric Soils List - All Components (OR), Tillamook County, Oregon, available online: http://www.or.nrcs.usda.gov/pnw\_soil/or\_data.html

NRCS, Soil Survey of Tillamook County Area Oregon, available online: http://www.or.nrcs.usda.gov/pnw\_soil/or\_data.html

Priest, George R., 1995, Tsunami Hazard Map of the Garibaldi Quadrangle Tillamook County Oregon, Open File Report 0-95-17, Oregon Department of Geology and Mineral Industries, available online: http://www.oregongeology.com/sub/earthquakes/Coastal/Tsumapsbycity.HTM

Rockway Beach, 1992, Rockaway Beach Comprehensive Plan.

U.S. Fish and Wildlife Services, National Wetland Inventory Map, available online: http://wetlandsfws.er.usgs.gov/NWI/download.html

## Measures to Minimize Impacts

Describe what measures you will use (before and after construction) to minimize impacts to the waterway or wetland. These may include but are not limited to the following:

- For projects with ground disturbance include an erosion control plan or description of other best management practices (BMP's) as
- appropriate. (For more information on erosion control practices see DEQ's Oregon Sediment and Erosion Control Manual) For work in waterways where fish or flowing water are likely to be present, discuss how the work area will be isolated from the flowing water.
- If native migratory fish are present (or were historically present) and you are installing, replacing or abandoning a culvert or other potential obstruction to fish passage, complete and attach a statement of how the Fish Passage Requirements, set by the Oregon Department of Fish and
  - Wildlife will be met.

The sediment and erosion control plan is shown on figures 15a through 15d. The following is a list of the BMP's from the sediment and erosion control plan.

- 1. Hold a pre-construction meeting of project construction personnel that includes the inspector to discuss erosion and sediment control measures and construction limits.
- 2. The ESCP must be kept onsite and all erosion and sediment control measure shown on the plan be installed in such a manner to ensure that sediment or sediment laden water that enters or is likely to enter surface water or conveyance systems leading to surface water, roadway, ore other properties does not occur.
- 3. The implementation of the ESCP and construction, maintenance, replacement, and upgrading of the erosion and sediment control measures is the responsibility of the permit registrant until all construction is completed and approved by the local development agency and vegetation/landscaping is established. The permit registrant shall be responsible for maintenance after the lots are approved until the lots are sold and the 1200 c permit is terminated.
- 4. The permit registrant must be responsible for proper installation and maintenance of all erosion and sediment control measures.
- 5. Erosion and sediment control measures including perimeter sediment control must be in place before vegetation is disturbed and must remain in place and be maintained, repaired and promptly implemented follow procedures established for the duration of construction, including protection for active storm drain inlets and catch basins and appropriate non-storm water pollution controls.
- 6. Begin land clearing, excavation, trenching, cutting or grading and earthwork-surface rough after installing applicable sediment, erosion prevention and runoff control measure not in the direct path of the work.
- 7. Apply temporary and/or permanent soil stabilization measures immediately on all disturbed areas as grading progresses and for all roadways including gravel roadways.
- 8. Wet weather BMPs: construction activities must avoid or minimize excavation and creation of bare ground on slope greater than 5 percent from October 1 through May 31 each year.
- 9. Wet weather BMPs: temporary stabilization of the site must be installed at the end of the shift before a holiday or weekend or at the end of each workday if rainfall is forecast in the next 24 hours and each weekend and holiday.
- 10. Identify, mark and protect (by fencing or other means) critical riparian areas and vegetation including important trees and associated rooting zones and vegetation areas to be preserved, especially in perimeter areas, preserve existing vegetation and re-vegetate open areas when practicable before and after grading or construction.
- 11. Provide permanent erosion prevent measure on al exposed areas to prevent from becoming a source of erosion and remove all temporary control measures unless local ordinances require otherwise, as areas are stabilized.

\* Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.

- 12. All temporary sediment controls must remain in place until permanent vegetation or other permanent cover of exposed soil is established. Identify the type of vegetative seed mix used.
- 13. Sediment controls must be installed and maintained along with the site perimeter on all down gradient sides of construction site and at all active and operational internal storm drain inlets at all time during construction.
- 14. Prior to any land disturbing activities each site must have graveled, paved, or constructed entrances, exits and parking areas with exit tire wash to reduce tracking of sediment on public or private roads.
- 15. When trucking saturated soils form the site, either watertight trucks must be used or loads must be drained on-site until dripping has been reduced to minimize spillage on the roads.
- 16. Temporary stabilization or covering of soil stockpiles and protection of stockpiled located away from construction activity must occur at the end of each workday or other BMPs, such as diversion of uncontaminated flows and installation of sediment fences around the stockpiles, must be implemented to prevent turbid discharges to surface waters.
- 17. BMPs that will be used to prevent or minimize stormwater from being exposed to pollutants from spills: no discharge of concrete truck wash water, vehicle and equipment cleaning, vehicle and equipment fueling, maintenance, and storage, other cleaning and maintenance activities, and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, leftover paints, solvents and glues from construction operations.
- 18. Any use of toxic or other hazardous materials must include proper storage, application, and disposal.
- 19. Solid waste and hazardous materials management follow project written spill prevention and response procedures; regular maintenance schedule for vehicles and machinery; and material delivery and storage controls, training and signage, material use, covered storage areas for waste and supplies.
- 20. The permittee must properly manage hazardous waste, used oils, contaminated soils, concrete waste, sanitary waste, liquid waste, or other toxic substance discovered or generated during construction and meet all state and federal regulations and approvals.
- 21. The ECSP measures shown on the plan are minimum requirements for anticipated site conditions. During the construction period, these measures must be upgraded as needed to comply with all applicable local, state, and federal and erosion control regulations. Changes to the ESCP must also be submitted in the form of an action plan to DEQ or its agent for approval.
- 22. Significant amounts of sediment, which leaves the site, must be cleaned up within 24 hours and placed back on the site and stabilized or properly disposed. The cause of sediment release must be found and prevented from causing a recurrence of the discharge within the same 24 hours. Any in-stream clean up of sediment shall be performed according to the Oregon Department of State Lands time frame.
- 23. Vacuuming or dry sweeping must be used to clean-up released sediment and must not be intentionally washed into storm sewers, drainage ways, or water bodies.
- 24. The application rate of fertilizers used to reestablish vegetation must follow manufacturer's recommendations to minimize nutrient release to surface waters. Time-release fertilizers should be used with care within any waterway riparian zone.
- 25. Sediment must be removed from behind a sediment fence when it has reached a height of 1/3 the height of the fence aboveground and before fence removal.
- 26. The sediment must be removed from behind bio bags and other barriers if it has reach a height of two inches and before BMP removal.
- 27. Removal of trapped sediment in a sediment basin or sediment trap or catch basins must occur when the sediment retention capacity has been reduced by fifty percent and at completion of the project.

20	DEQ must approve of any treatment system and operation plan that may be necessary to treat
2X.	DEC must approve of any reaction system and operation prair and the
20.	Diagonal of the second se
	contaminated construction dewatering or sediment and turbidity in stormwater runoff.
	comannuated construction dowated ing of seamone and through in the

- 29. Should all construction activities cease for thirty days or more, the entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding, or other method.
- 30. Should construction activities cease for fifteen days or more on any significant portion of a construction site temporary stabilization is required for that portion of the site with straw, compost, or other trackified covering that prevents soil or wind erosion until work resumes on that portion of the site.
- 31. Daily inspections when rainfall and runoff occurs of the BMPs and discharge outfalls must be inspected by the project ECSP inspector. These inspections and observations must be recorded in a log that is available on site.
- 32. BMPs must be inspected before, during, and after significant storm events.
- 33. All ESCP controls and practices must be inspected visually once to ensure that BMPs are in working order prior to the site becoming inactive or in anticipation of site inaccessibility and must be inspected visually once every two weeks during inactive periods greater than seven consecutive calendar days.
- 34. If practical, inspections must occur daily at a relevant and accessible discharge point or downstream location during periods which the site is inaccessible due to inclement weather.

Description of resources in project area					
Ocean	Estuary	River	Lake	Stream	Freshwater Wetland X
Describe the existing p	hysical and biological ch	aracteristics of the	wetland/waterway sit	e by area and type of res	ource
(Use separate sheets an					
<ul> <li>Dominant plant sp</li> <li>Whether the wetla</li> <li>Assessment of the</li> <li>Identify any verna</li> <li>For waterways, includ</li> <li>Channel and band</li> <li>Type and condition</li> <li>Channel morphol</li> <li>Stream substrate<sup>3</sup></li> <li>Fish and wildlife</li> </ul>	<u>trogeomorphic(HGM)</u> we recies by layer (herb, shru nd is freshwater or tidal functional attributes of th l pools, bogs, fens, matur le a description of, as app conditions* n of riparian vegetation* ogy (i.e., structure and sho type, abundance, period of	tb, tree)* we wetland to be impose forested wetland, s licable: ape)* of use, significance of	of site)	native wet prairies in or t	near the project area.)
Porick Environm	ical conditions (e.g. strea ental Services (RE	S) submitted a	wetland delineat	ion report to the O	regon Department of State
Lands on date. T	he wetland delinea	tion (WD # 08-	0188) was verif	led by DSL on Jun	e 10, 2008.
which 4.926 acre	s are on property of a stand delineation s	wned by Troy J tudv area inclu	ohns and 0.042 ded tax lot 5201.	the eastern portio	elineation study area, of e ROW of NE Tillamook n of tax lot 5203, and the illamook Avenue ROW)

contains 2.23 acres of wetland.

larger than the project area.					
Wetland	Acres	Cowardin Class	HGM Class		
A	3.899	PFO	Slope / Flats		
В	0.302	PFO	Slope / Flats		
С	0.088	PFO	Depressional		
D	0.023	PFO	Depressional		
Е	0.004	PFO	Depressional		
F	0.072	PFO	Depressional		
G	0.004	PFO	Depressional		
Н	0.491	PFO	Slope / Flats		
Ι	0.013	PFO	Depressional		
J	0.004	PFO	Depressional		
K	0.001	PFO	Depressional		
L	0.006	PFO	Depressional		
M	0.002	PFO	Depressional		
N	0.004	PFO	Depressional		
0	0.004	PFO	Depressional		
Р	0.005	PFO	Depressional		
0	0.046	PFO	Slope / Flats		
Total	4.968				

Summary of wetland delineation results (from WD# 08-0188). Note: the wetland delineation study area is larger than the project area.

Figure 6 shows that wetland delineation study area contains 13 depressional wetlands (0.23 acres) and four slope/flat wetlands (4.738 acres). The depressional wetlands range in size from 27 to 10,698 square feet. These wetlands are located in shallow basins that receive runoff from adjacent uplands, direct precipitation and experience a seasonally high water table. The slope/flat wetlands are supported by ephemeral stream flow, runoff from the adjacent uplands, and a seasonally high water table. The largest slope/flat wetland (wetland A) extends offsite to the west where it connects to Lake Lytle.

All of the wetlands on the site belong to the PFOC (palustrine forested seasonally flooded) Cowardin class (figure 7). The dominant plant species growing in the wetlands are red alder, Sitka spruce, skunk cabbage, lady fern, deer fern, slough sedge, and salmonberry.

RES completed a Hydrogeomorphic (HGM) Functional Assessment of the project site using the judgmental method developed by the Oregon Department of State Lands (Adamus and Field 2001). OAR 141-085-0685 (3) requires that the Oregon Rapid Wetland Assessment Protocol (ORWAP) be used to evaluate wetlands for projects with greater than 0.20 acres of wetland impact. The proposed project would result in 0.17 acres of wetland, therefore ORWAP was not used.

Function	Functional Capacity Score	Gains or Losses
We Storage and Delay	0.8	Maintained
Water Storage and Delay Sediment Stabilization and	0.9	Maintained
Phosphorous Retention	0.8	Maintained
Nitrogen Removal	1.0	Maintained
Primary Production	1.0	Maintained
Invertebrate Habitat Support Amphibian and Turtle Habitat	0.9	Impacted by increase in amount of paved surfaces
Breeding Waterbird Support	0.9	Maintained, not a primary function of existing site
Winter and Migratory Waterbird	0.9	Maintained, not a primary function of existing site
Support Songbird Habitat Support	0.0	Decrease due to development of residential lots and roads
Support of Characteristic Vegetation	1.0	Decrease due to the conversion of woodland to residential use

# Water Storage and Delay – Functional Capacity Score 0.8

The site rates high for water storage and delay because it is seasonally inundated and drains slowly after rain events.

## Effect of Construction of the Subdivision

Water storage and delay is not an important function of the site's wetlands due to their low position in the watershed close to the Pacific Ocean. Runoff from the site discharges to Lake Lytle which drains into Crescent Lake and from there into the Pacific Ocean.

## Effect of Compensatory Wetland Mitigation

Construction of the wetland mitigation site will maintain or improve water storage and delay because the amount of wetland creation exceeds the amount of wetland impact by 0.13 acres. In addition, the created wetlands will be constructed so that they have a rough surface that encourages water retention through the formation of puddles.

# Sediment Stabilization and Phosphorous Retention – Functional Capacity Score 0.9

The site scored high for sediment stabilization and phosphorous retention because of the soil texture (silt loam and silty clay loam), the high amount of vegetative ground cover, and undisturbed soils.

## Effect of Construction of the Subdivision

The sediment and erosion control plan is designed to prevent sediment from leaving the site during construction (see block 5 of the permit application). After construction, the storm-water facilities will pre-treat storm water for pollutants and sediment before it discharges to the wetland. Therefore, the construction of the subdivision is not expected to alter this function.

## Effect of Compensatory Wetland Mitigation

The construction of the wetland mitigation site will moderately improve stabilization and phosphorous retention due to a net gain in wetland area of 0.13 acres. The wetland mitigation will be modeled after the existing wetlands so they will have features that promote this function: abundant vegetative cover, shallow pools, and finely textured soil.

## Nitrogen Removal – Functional Capacity Score 0.8

## Existing Condition

The site's wetlands rated relatively high for nitrogen removal due to mature soil microbial processes, lack of soil disturbance and site microtopograhy.

## Effect of Construction of the Subdivision

The construction of the mitigation site is not expected to have any effect on nitrogen removal because the amount of wetland impact (0.17 acres) is small in comparison to the amount of wetlands that will be preserved: 2.06 acres within the project area and approximately 16.7 acres (tax lot 5203) of wetland adjacent to Lake Lytle.

## Effect of Compensatory Wetland Mitigation

Construction of the wetland mitigation site is expected to maintain or slightly improve nitrogen removal because the amount of wetland created exceeds the amount of wetland impact by 0.13 acres.

## Primary Production - Functional Capacity Score 1.0

## Existing Condition

The site scored high for primary production because of the well distributed and diverse plant forms on the site, the lack of soil disturbance, and a relatively undeveloped contributing watershed.

## Effect of Construction of the Subdivision

The construction of the project will diminish this score slightly due to an increase in paved area in the adjoining upland.

## Effect of Compensatory Wetland Mitigation

The implementation of the mitigation plan will contribute to primary production because the created wetlands will be planted with a diverse plant community modeled after the site's existing wetlands.

## Invertebrate Habitat Support - Functional Capacity Score 1.0

## Existing Condition

The score for invertebrate habitat support is high due to the presence of nearby surface water during most of the year, cover in the form of aquatic plants and woody debris, the interspersion of pools within the vegetated areas, the apparent high water quality, undisturbed soils, and adjacent wetlands.

## Effect of Construction of the Subdivision

Construction of the subdivision will affect habitat support for invertebrates due to impacts to 0.17 acres of wetland. This is 8 percent of the of the total wetland acreage within the project area boundary. Including the approximately 16.7 acres of wetland in tax lot 5203, the impact is only 0.9 percent of the site's wetlands.

## Effect of Compensatory Wetland Mitigation

The wetland mitigation site will compensate for the wetland impacts by the creation of 0.3 acres of wetland that will be planted with a diverse community of wetland vegetation.

## Amphibian and Turtle Habitat – Functional Capacity Score 0.8

## Existing Condition

The score of amphibian and turtle habitat is high due to the duration of shallow surface water, the presence of woody debris, the interspersion of pools in the vegetated areas, the presence of basking sites, apparent high water quality, the undisturbed state of the soils, and the accumulation of an organic layer.

## Effect of Construction of the Subdivision

The implementation of the project will increase the area of paved and covered surfaces in the upland which will reduce this score.

## Effect of Compensatory Wetland Mitigation

The wetland mitigation will offset the impacts due to creation of 0.3 acres of wetland. In addition, 2.06 acres of wetland within the project area and 16.7 acres of existing wetland in tax lot 5203 will remain undeveloped.

## Breeding Waterbird Support – Functional Capacity Score 0.6

## Existing Condition

Site factors that are disincentives to waterbirds include the lack of many acres of nearby wetland and large pools of water. Factors that favor waterbirds are the presence native vegetation, undisturbed soils, and apparent high water quality.

## Effect of Construction of the Subdivision

Implementation of the subdivision will increase human visitation to the site which would slightly lower the score.

## Effect of Compensatory Wetland Mitigation

It is not expected that the wetland mitigation would improve this function as the wetland mitigation does not involve the creation of pools or other habitat features that favor breeding waterbirds.

## Winter and Migratory Waterbird Support – Functional Capacity Score 0.7

## Existing Condition

The factors that support winter and migratory waterbirds are water quality, lack of disturbed soils, and the presence of native vegetation. Factors that are a disincentive to water birds are the lack of extensive surface water and large areas of inundation.

## Effect of Construction of the Subdivision

Construction of the subdivision will increase human visitation to the site which may discourage waterbird use.

## Effect of Compensatory Wetland Mitigation

The construction of the mitigation site will not alter the site's capacity to support waterbirds. The wetland mitigation does not involve the creation of large inundated areas that favor waterbirds.

## Songbird Habitat Support –Functional Capacity Score 1.0

## Existing Conditions

The site rates high for songbird habitat support because it contains nearby year-round surface water, native vegetation, the under cover shrub layer is extensive, tree cover and surrounding woodland.

## Effect of Construction of the Subdivision

Construction of the subdivision will slightly decrease this function as 14.81 acres of woodland will be converted to suburban land use.

## Effect of Compensatory Wetland Mitigation

The construction of the wetland mitigation site will compensate for impacts to forested wetland through the creation of 0.3 acres of forested wetland.

## Support of Characteristic Vegetation - Functional Capacity Score 1.0

## Existing Conditions

The site's wetlands rate high for support of characteristic native vegetation due to the abundant and diverse native vegetation.

## Effect of Construction of the Subdivision

Construction of the subdivision will reduce this function because 14.81 acres of woodland will be converted to residential use. However, 2.03 acres of wetland in the project area and 16.7 acres of wetland on tax lot 5203 will remain undeveloped.

## Effect of Compensatory Wetland Mitigation

The compensatory wetland mitigation site will contribute to this function as the CWM sites will be planted with native species modeled after the existing wetland.

Describe the existing navigation, fishing and recreational use of the waterway or wetland.\*

The wetlands on the project site are not used for navigation, fish or recreational use. However, Lake Lytle, located west of the site, is used for both recreational boating and fishing.

## Site Restoration/Rehabilitation

 For temporary disturbance of soils and/or vegetation in waterways, wetlands or riparian areas, please discuss how you will restore the site after construction including any monitoring, if necessary\*

No temporary impacts are proposed.

#### Mitigation

Describe the reasonably expected adverse effects of the development of this project and how the effects will be mitigated.\*

- For permanent impact to wetlands, complete and attach a Compensatory Wetland Mitigation (CWM) Plan. (See <u>OAR 141-085-0121 to OAR 141-085-0121 to OAR 141-085-0176</u> for plan requirements)\*
- For permanent impact to waterways or riparian areas, complete and attach a Compensatory Mitigation (CM) plan (See <u>OAR 141-085-0115</u> for plan requirements)\*
- For permanent impact to estuarine wetlands, you must submit an Estuarine Resource Replacement Plan. (See <u>OAR 141-085-0240 to OAR 141-085-0240 to OAR 141-085-0257</u> for plan requirements)\*

The Compensatory Wetland Mitigation plan is contained in attachment A.

Mitigation Location Information (Fill out only when mitigation is proposed or required)							
Proposed mitigation       X       Onsite Mitigation       Type of mitigation:         (Check all that apply):       Offsite Mitigation       X       Wetland Mitigation         Mitigation Bank       Mitigation Bank       Mitigation for impacts to other waters         Payment to Provide       Mitigation for impacts to navigation, fishing, or recreation         Street, Road or Other Descriptive Location       Legal Description (attach tax lot map*)					or recreation		
The project site is located east of La	ke Lytle in Rockaway Beach.	Quar	ter/Quarter	Section		Township	Range
From Highway 101 turn east onto N west mitigation site turn south on Ti mitigation site, turn south on Francis	llamook. To reach the east	SW 1/4 SE 1/4	of the	29		2N	10W
In or near (City or Town)	County		Tax Map #			Tax Lot $\#^3$	
Rockaway Beach	Tillamook		T2N R10W	2N R10W		5201	
Wetland/Waterway (pick one)	River Mile (if known)			itude (in DD.DDDD format) Longitude (in DD.DDDD for			
wetland	n/a		45° 37.499,			123° 55.991,5' V	V
Name of waterway/watershed/ <u>HUC</u>				itigation bank (if ap	oplical	DIE)	
4 <sup>th</sup> field: 17100203 Wilson Trask Ne	estuca		n/a				
	(6) ADDITIC	DNAL	. INFOR	MATION	100004354031555577		201210-02767200-00000000000000000000000000000
Adjoining Property Owners and The	ir Address and Phone Numbers	s (if mor	e than 5, atta	ch printed labels*)	)		
Thomas W Boyd PO Box 763 Rockaway Beach, OR 97136 Raymond E & Shirley M Cain 20786 SW Zurich CT Aloha, OR 97007 Larry G Nuckols 6730 NW Bert Dr Forest Grove, OR 97116 Merwyn K & Gloria A Aakre 4951 Netarts HWY W Tillamook, OR 97141 Fay Boyer 1043 N Smith Rockaway Beach, OR 97136	<ul> <li>M Cain Larry J &amp; Linda L Nelson 1044 Smith St Rockaway Beach, OR 97136</li> <li>George Paulson PO Box 884 Crickmer PO Box 884 Rockaway Beach, OR 97136</li> <li>Michael B &amp; Bridget H Crickmer PO Box 184 Rockaway Beach, OR 97136</li> <li>Mark A Vandehey 19200 S Leland Rd</li> <li>Sally Vanebo PO BOX 1137</li> </ul>						
Doris G Phelps PO Box 535 Rockaway Beach, OR 97136 Lake Lytle II 7175 SW Beveland Rd Suite 210 Tigard, OR 97223	Thomas Nelson 2600 NE Hyde St Hillsboro, OR 97124 John A Reid 13903 NE Rose Pky Portland, OR 97230		PO E Neha Patri PO E	lia A Bean Box 245 alem, OR 97131 cia J Miles Box 298 caway Beach, O		136	

 $<sup>^{3}</sup>$  Attach a copy of all tax maps with the project area highlighted.

<sup>\*</sup> Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.

		ation of the o	0 <sup>f</sup>	Enginee	or the Departm	ient of State	Lands in the pa	ast, e.g.,
wetland delineation, violatio	r any related activity received the atter on, permit, lease request, etc.?	Y		Engineers	No	, , statt	410 }	- *
	number(s) were assigned by the respec	ctive agencies: State of Oregon #	ŧ	WD#08-0	0188			
Corps #		State of Oregon #	# Yes	Sector Se	No	an a		
	been completed for this site? Rorick Environmental Services		در 	لي				
If yes by whom?*		2 1	Yes	X	No			
Has the wetland delineation If yes, attach a concurrence	on been approved by DSL or the COE? ce letter. *		در 		LI	w		
Jy-s, and the concurrenc			<u></u>					
			-			wang shi sa		

(7) CITY/COUNTY PLANNING (TO BE COMPLETED BY LOC)	DEPARTMENT AFFI	DAVIT _) *	
This project is not regulated by the comprehensive plan and land us This project is consistent with the comprehensive plan and land use This project will be consistent with the comprehensive plan and land use This project will be consistent with the comprehensive plan and land Conditional Use Approval Development Permit Other SUBDIVISION This project is not consistent with the comprehensive plan. Consistency required Plan Amendment Zone Change Other	nat: e regulations. regulations. d use regulations when the followin		obtained.
	Title	City / County	Date
Local planning official name (print) Signature	. CITY PLANNER	ROCKAWA-C BEACH	4/2+/04
(8) COASTAL ZONE	CERTIFICATION *		
(8) COASTAL ZONE If the proposed activity described in your permit application is within the Q application can be processed. A public notice will be issued with the certific Land Conservation and Development for its concurrence or objection. For contact the department at 635 Capitol Street NE, Suite 150, Salem, Oregon CERTIFICATIO I certify that, to the best of my knowledge and belief, the proposed activity Zone Management Program and will be completed in a manner consistent of	regon coastal zone, the following ce leation statement, which will be forv additional information on the Orego 97301 or call 503-373-0050. N STATEMENT described in this application compli	on Coastal Zone Managa	ement Program.
Zone Management Program and will be completed in a management Print /Type Name	Title		
Applicant Signature	Date		

(7) CITY/ (70 E	COUNTY PLAN	NING DEPARTMENT V LOCAL PLANNING OI	T AFFIDAVIT FFICIAL) *	
Conditional Use Approval Development Permit Other This project is not consistent with the c Plan Amendment Zone Change Other	by the comprehensive plan and h the comprehensive plan and it with the comprehensive plan comprehensive plan. Consist	d land use regulations. I land use regulations. In and land use regulations when the		re obtained.
An application has	has not been t		City / County	Date
Local planning official name (print)	Signature	1115		
Comments:				
			10N *	
If the proposed activity described in application can be processed. A pub Land Conservation and Developmen contact the department at 635 Capito I certify that, to the best of my know Zone Management Program and will	your permit application is wi lic notice will be issued with a for its concurrence or object I Street NE, Suite 150, Saler CERTI	tion. For additional information of n, Oregon 97301 or call 503-373-0 FICATION STATEMENT ed activity described in this applica onsistent with the program.	blowing certification is required will be forwarded to the Oregon n the Oregon Coastal Zone Man 050.	agement Program,
Print /Type Name		Title OWNONS		
IRAY Johns Bob & Applicant Signature	hmeling	Date JUN 23	2009	
			al permit decision by the Corps.	2:

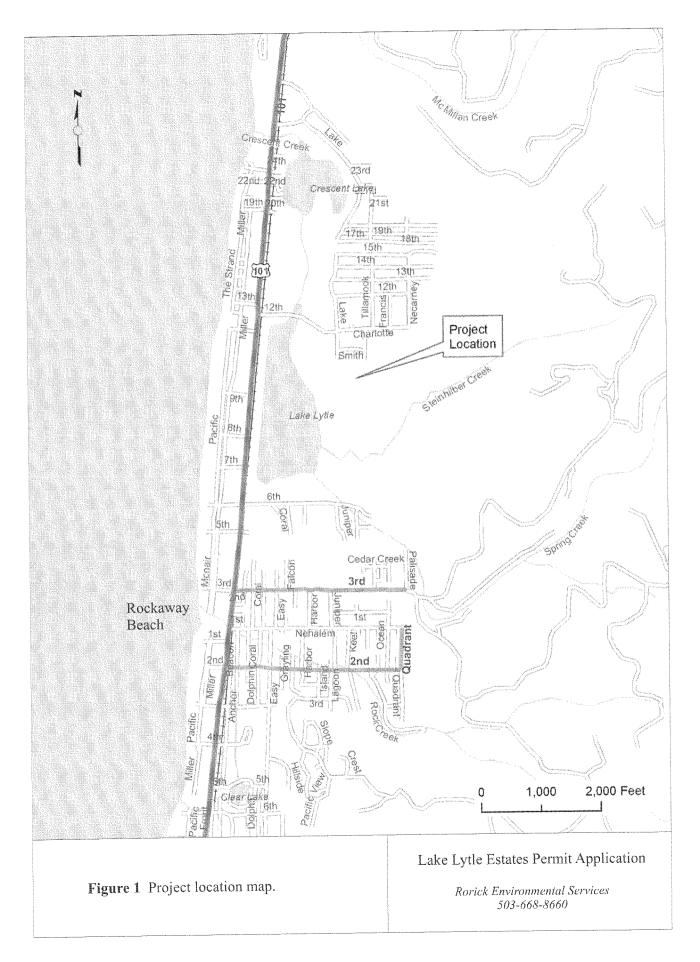
\* Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corp

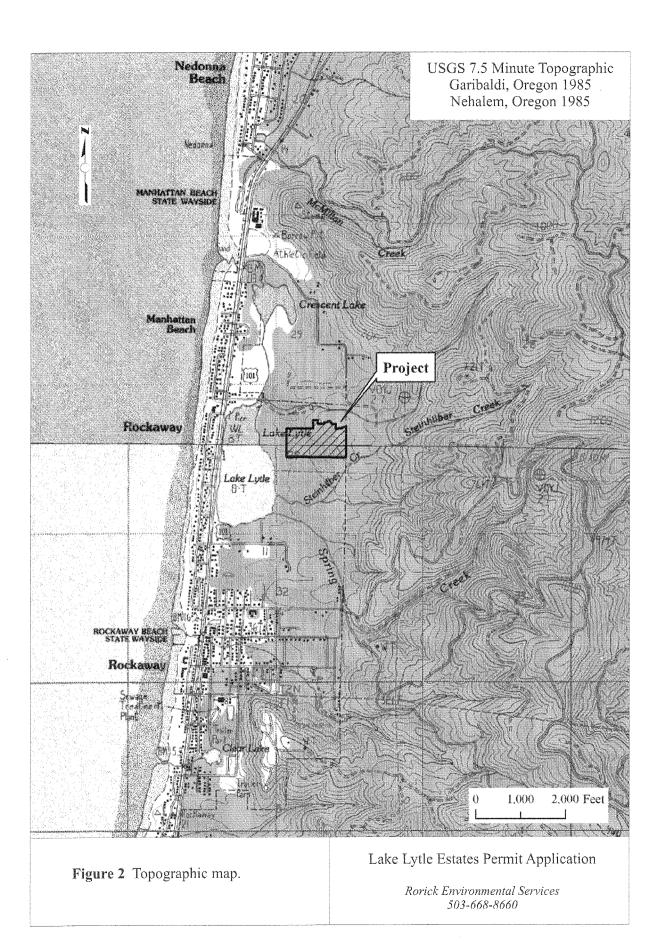
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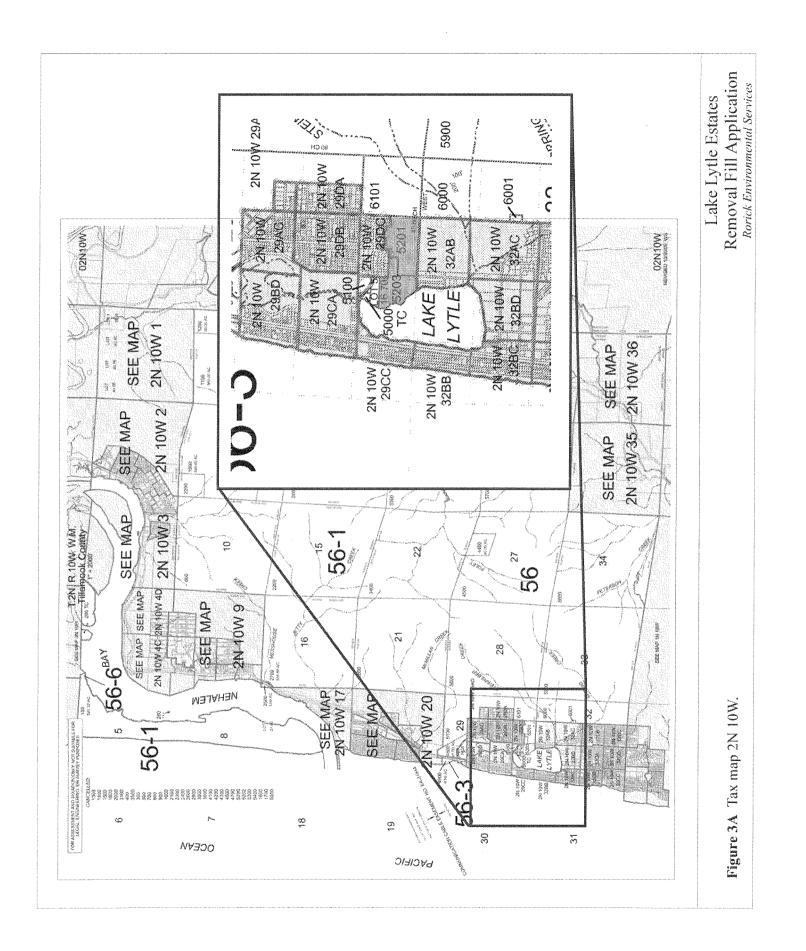
# (9) SIGNATURES FOR JOINT APPLICATION

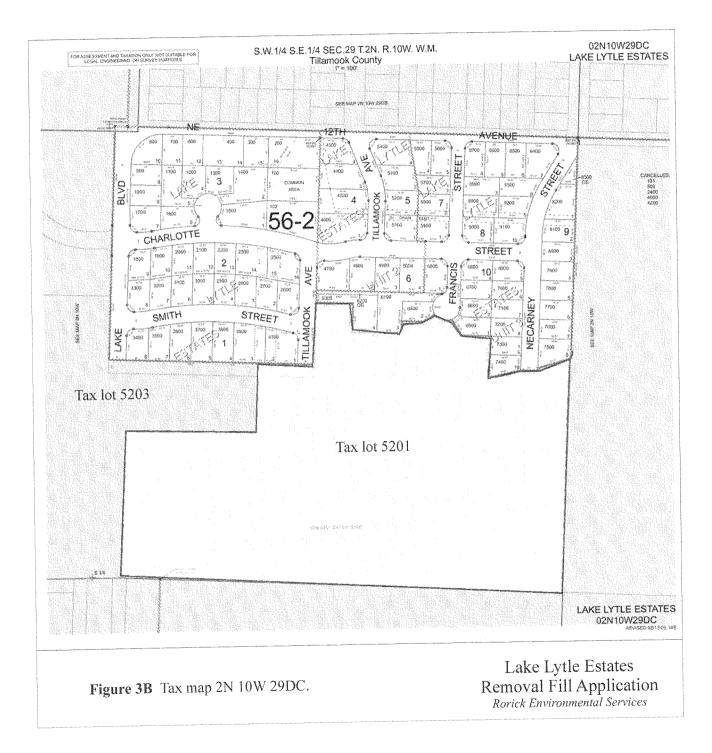
Application is hereby made for the activities described herein. 1 certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or Dept. of State Lands staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I herby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.         I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance.         The fee for the state application must accompany the application for completeness.         Amount enclosed       re-submittal					
	Title	Print /Type Name	Title		
Print /Type Name		Nancy L Reviel	Hychic geologist. Date		
TEOU Johns J Bob Schmelme	DWN215 Date JUN 23 2009	Authorized Agent Signature	Date		
Applicant Signature		K	6/23/09		
Landowner signatures:       For projects and /or mitigation work proposed on land not gived by the applicant, including state-owned submerged and submersible lands, piease provide signatures below. A signature by the Department of State Lands for activities proposed on state-owned submerged/subm					
signature for activities on state-owned	a suomergen und suomerstore in a	Print /Type Name	Title		
Print /Type Name	Title	Time + 2 by rowing			
Property Owner Signature	Date	Miligation Property Owner Signature	Date		
Linherth Owner SiBrane S					

\* Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.









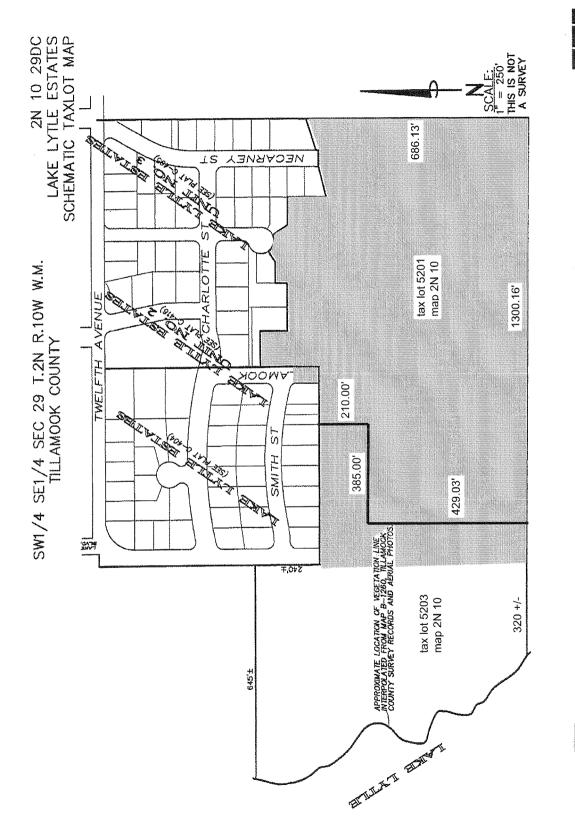




Figure 3C Updated tax map prepared by HLB - Otak.



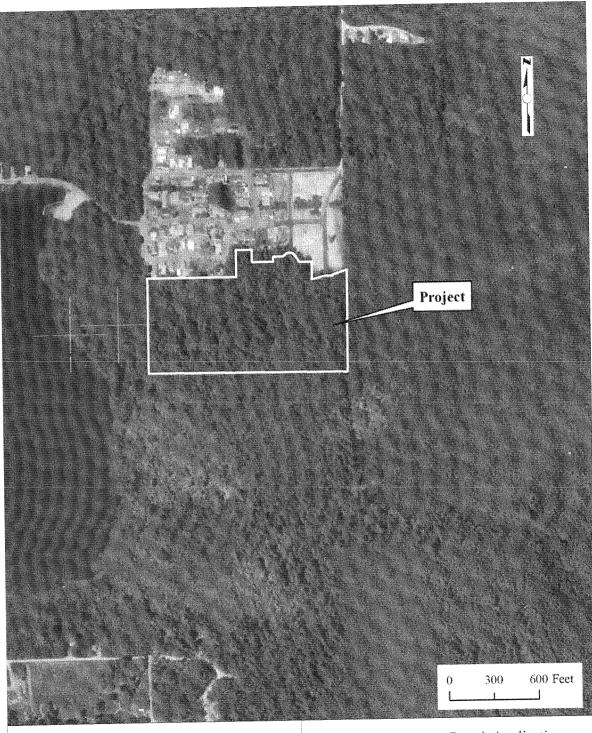
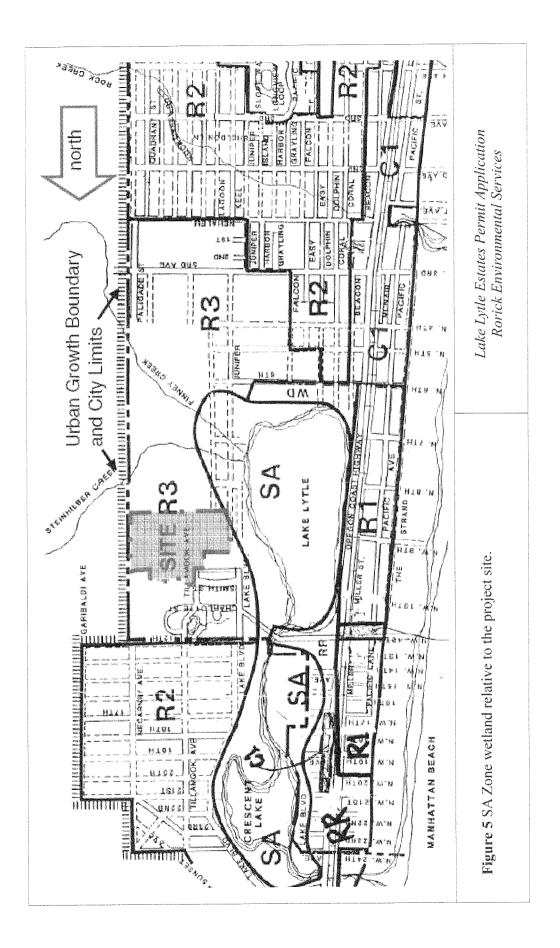
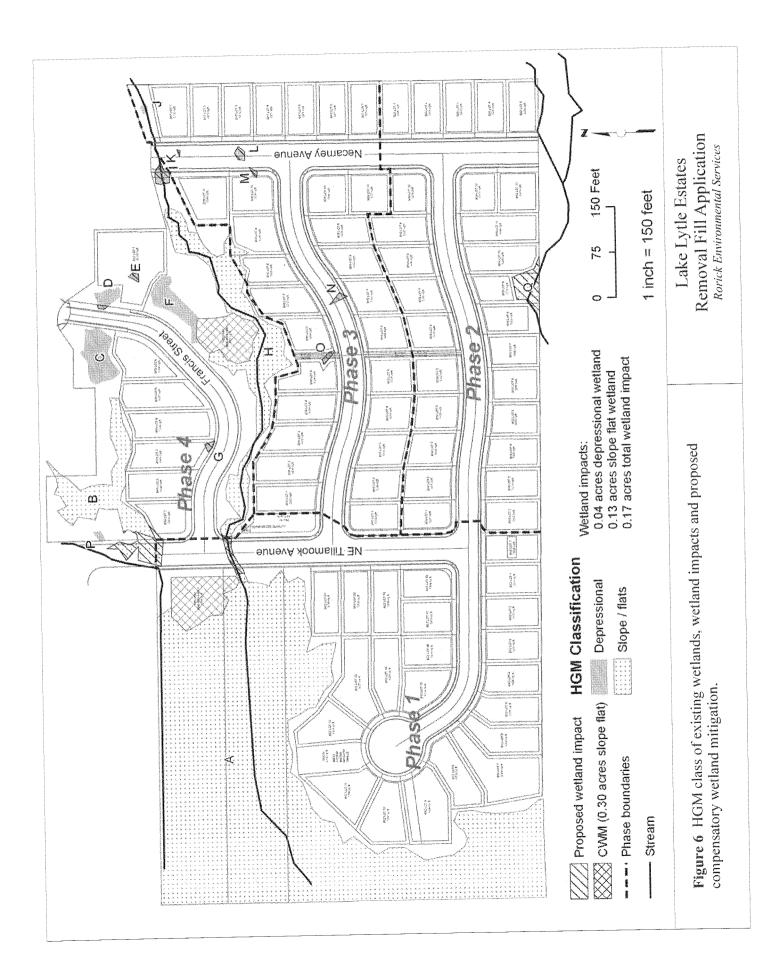


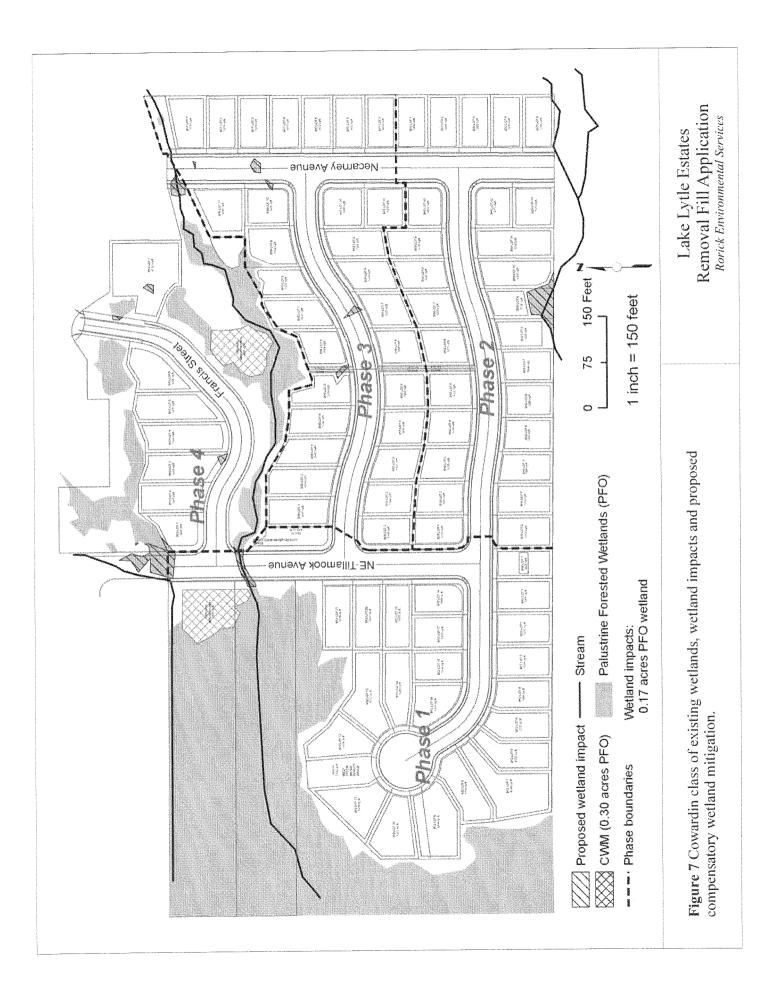
Figure 4 Aerial photograph (2000).

## Lake Lytle Estates Permit Application

Rorick Environmental Services 503-668-8660







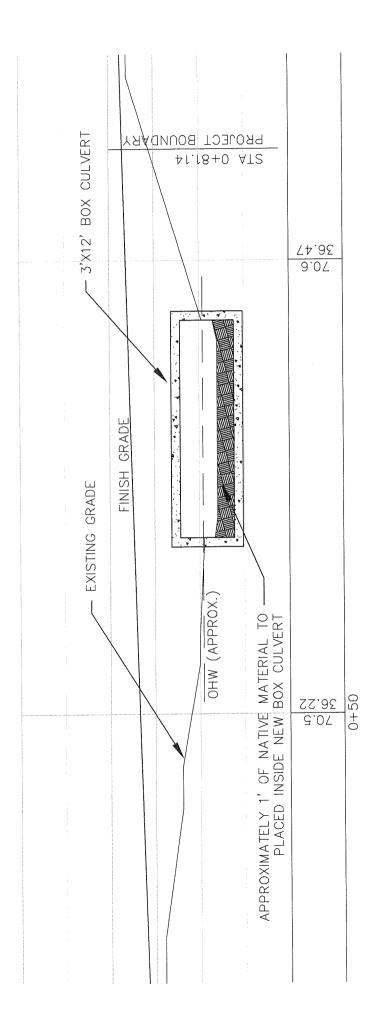
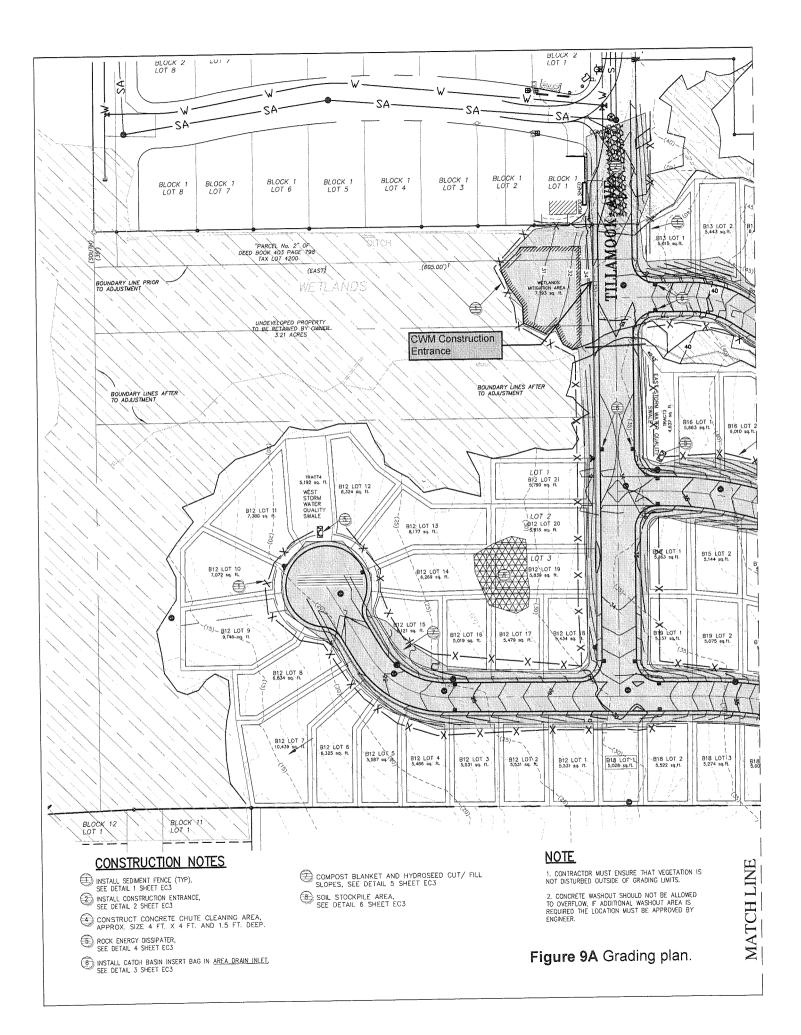
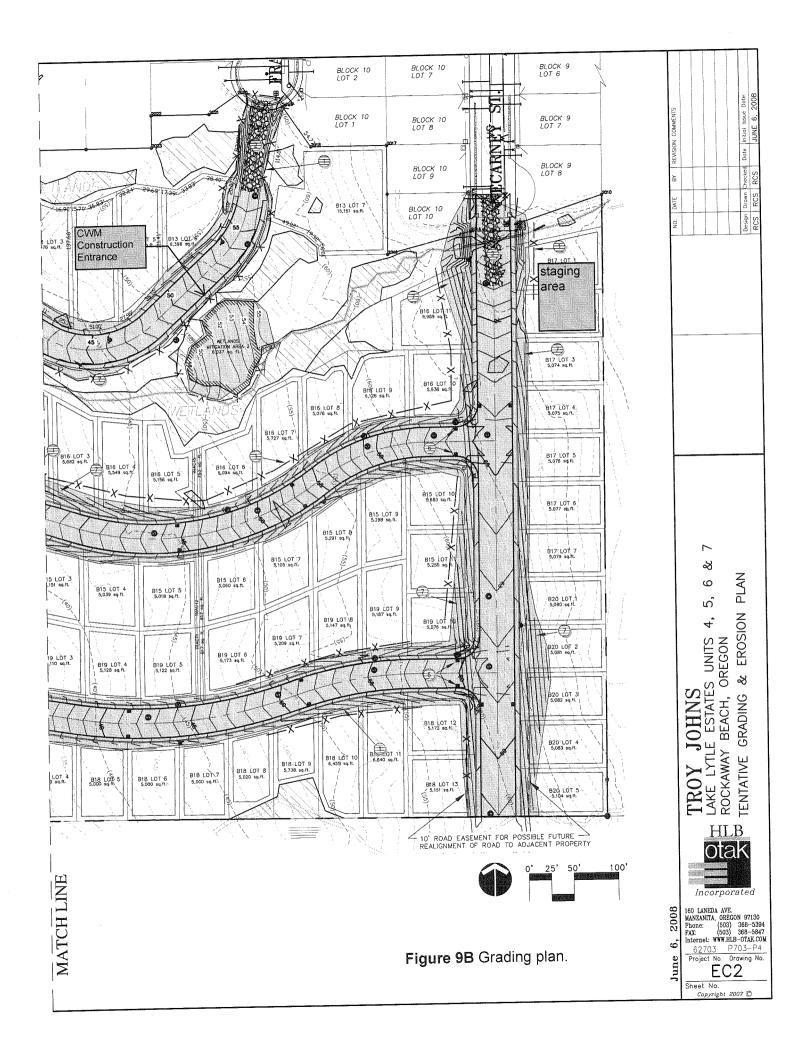




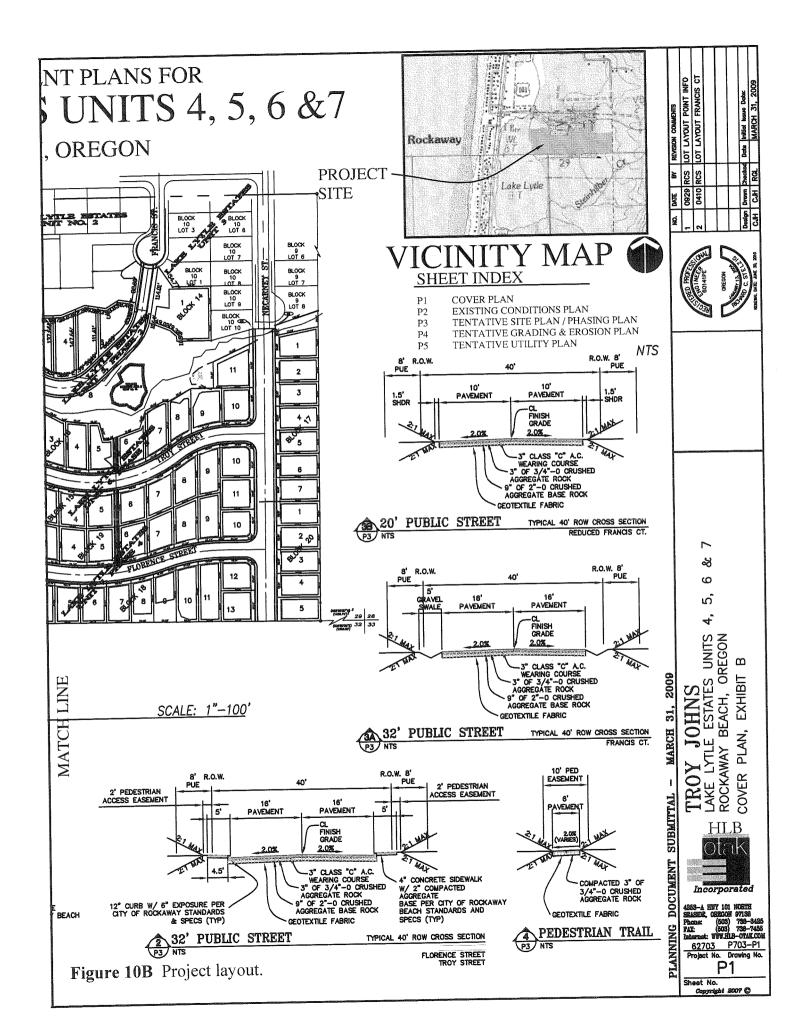
Figure 8 Fish passable culvert.

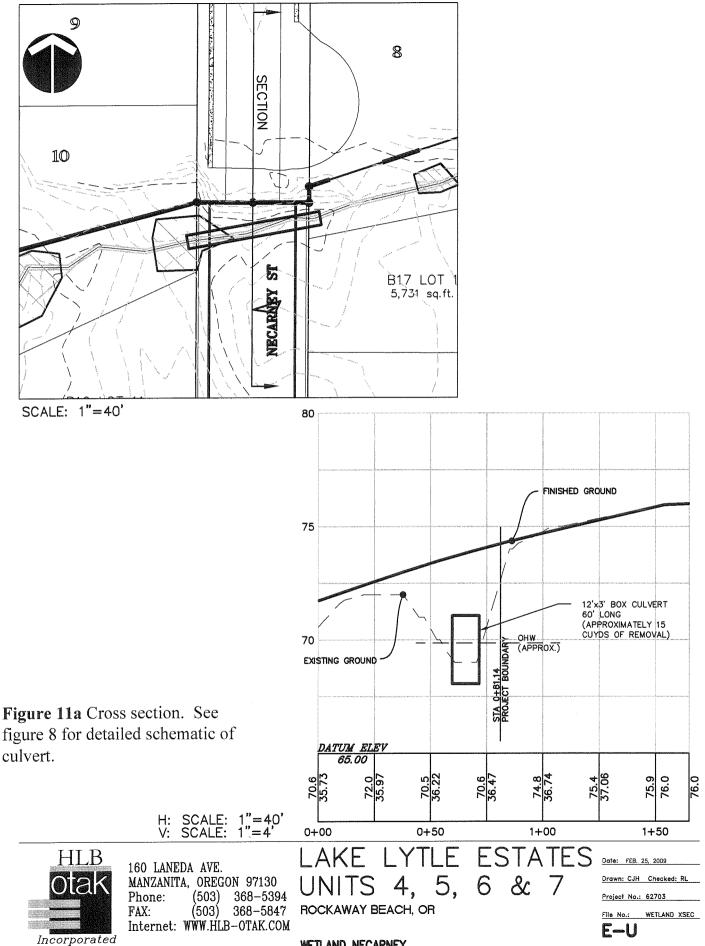




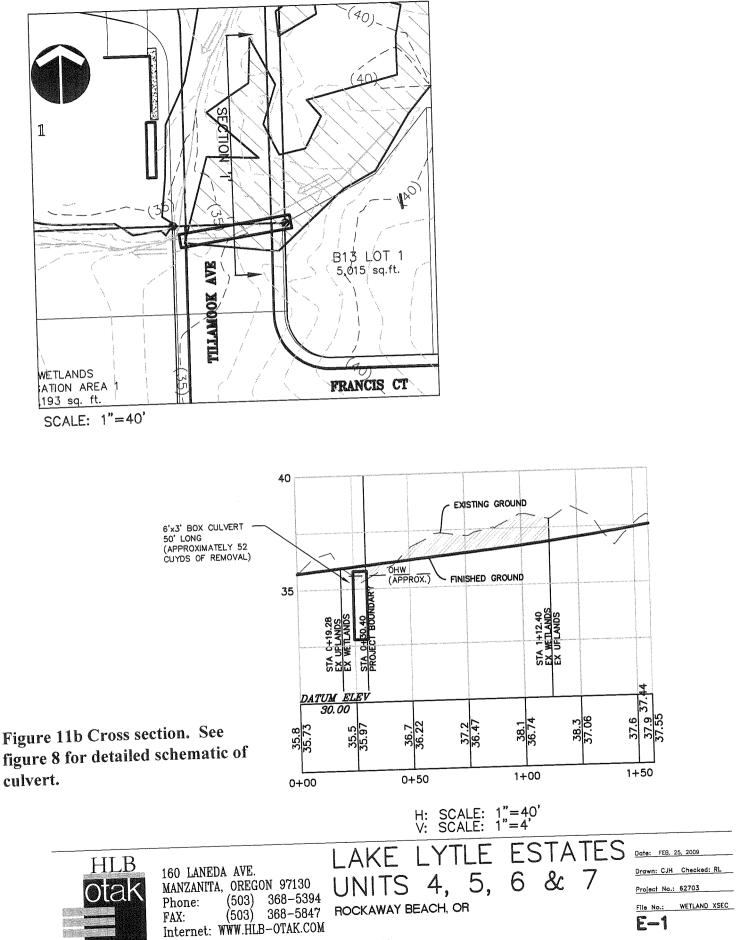
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APPLICANT	,	TENTATIVE DEVELOPME
Name: TROY Address: 12432	' JOHNS NE 20TH STREET	LAKE LYTLE ESTATES
Phone: (503) 9	COUVER, WA 98684 904-9144 500-4425	ROCKAWAY BEACH
LAND OWN		KOCKAWAI DEACH
Address: 1621 8	ERT SCHMELING (1/2) & TRO 4TH COURT COUVER, WA 98664	
CIVIL ENGI	NEER	LOT 9 LARE LYTLE ESTATES
Contact: RICH Address: 4253-4 GEAR	DTAK, INC. ARD STELZIG, P.E. A HWY 101 NORTH HART, OR 97138	BLOCK C 2 2 LOT 5 LOT 4 LOT 3 LOT 2 2 BLOCK C 2 LOT 7 LOT 6 LOT 3 LOT 2 LOT 1 LOT 8 LOCK BLOCK C 2 LOT 1 LOT 2 LOT
	738-3425 738-7455	
WETLANDS	CONSULTANT	
Contact: NANC Address: 37552 SAND	K ENVIRONMENTAL SERVIC CY RORIK, REGISTERED GEC SE RACHAEL DRIVE DY, OR 97055	
	G68-8660 G JURISDICTION	83 4324.13 5658.17 69.04
	OF ROCKAWAY BEACH	
Address: PO BC ROCK Phone: (503)		
Fax: (503)	355-8221	
TAX MAP AND LOT	PORTION OF SW 1/4 SE 1/4	RIP OF LAND, 605' LONG SIDE OF BLOCK I, LAKE ING FROM THE WEST R/W
LOT SIZE RANGE: TOTAL LOTS: GROSS AREA: DENSITY: CURRENT ZONING: ADJOINING ZONES:	5,000 - 10,439 SF 86 18.90 acres 4.62 lots per acre R-3 R-3 TO NORTH, R-R TO SC WEST	
PROPOSED USE: PRESENT USE: ACCESS:	SINGLE FAMILY RESIDEN VACANT FRANCIS STREET, LAKE F NECARNEY ST.	
PHONE:	<ul> <li>CITY OF ROCKAWAY BEA TILLAMOOK PEOPLE'S UT CITY OF ROCKAWAY BEA N/A</li> <li>CHARTER COMMUNICAT EMBARQ</li> </ul>	CH ILITY DISTRICT CH ONS CH 2.0% CH CH CH CH CH CH CH CH CH CH
AND RIGHTS-OF-WA	JECT TO ALL EASEMENTS, R AY OF RECORD AND THOSE LAND. IAVE SEPARATE WATER, SE'	COMMON AND 3" CLASS "C" A.C.
Figure 10A	Project layout.	38' PUBLIC STREET TYPICAL 50' ROW CROSS SECTION P3 NTS TILLAMOOK AVE NECARNEY ST.



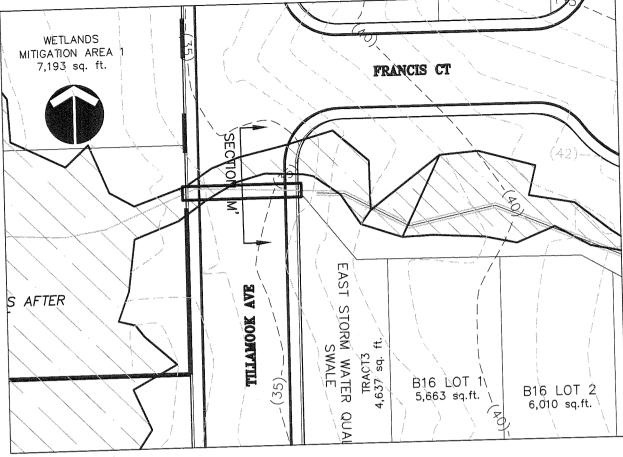


WETLAND NECARNEY

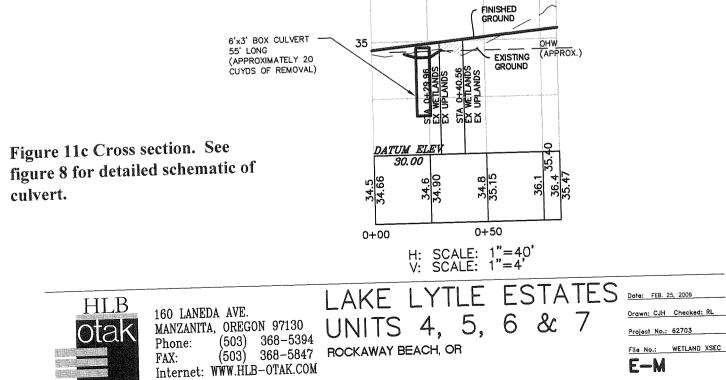


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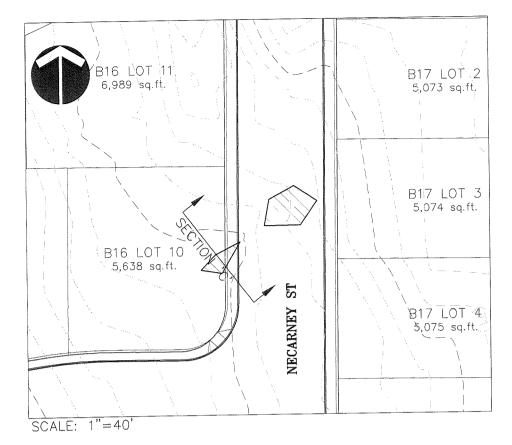
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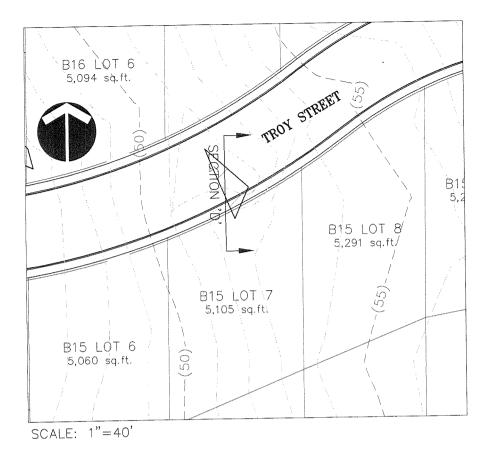
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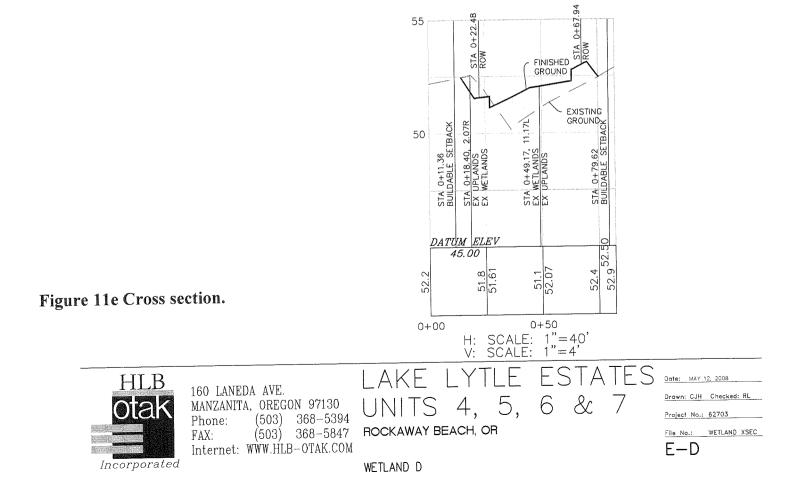


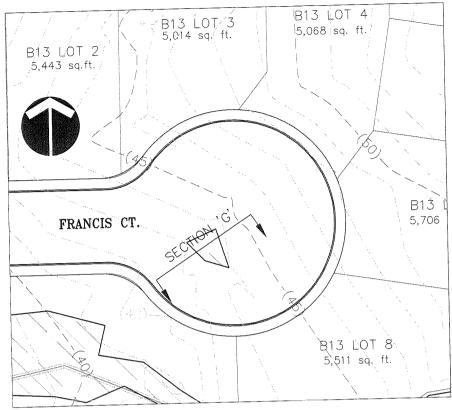
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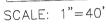


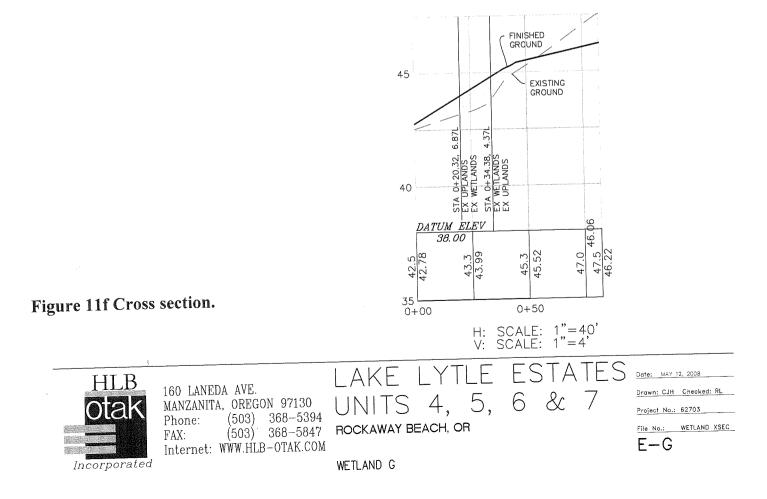
STA 0+52:28 ROW ( FINISHED GROUND 00.09 EX 01+35.94 STA 0+35.94 BUILDABLE SETBACK EX UPLANDS EX UPLANDS EX UPLANDS EX UPLANDS EX UPLANDS 65 EXISTING GROUND 66.0 66.4<sup>60.02</sup> 65.98 72 65.6 <u>64.</u> 66. 65. Figure 11d Cross section. 0+50 0+00 SCALE: 1"=40'SCALE: 1"=4'H: V: ESTATES LAKE HLB Date: MAY 12, 2008 160 LANEDA AVE. Drawn: CJH Checked: RL 5, & 4, 6 7 MANZANITA, OREGON 97130 UNITS iak Project No.: 62703 (503) 368-5394 Phone: ROCKAWAY BEACH, OR 368-5847 File No.: WETLAND XSEC (503) FAX: Internet: WWW.HLB-OTAK.COM E-C Incorporated

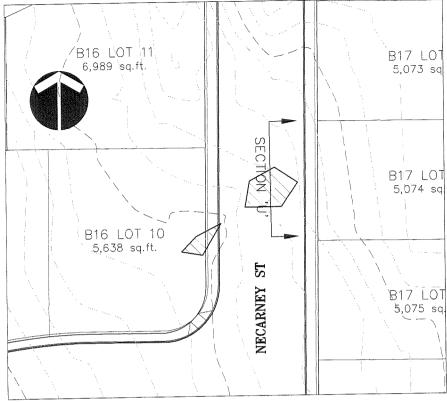




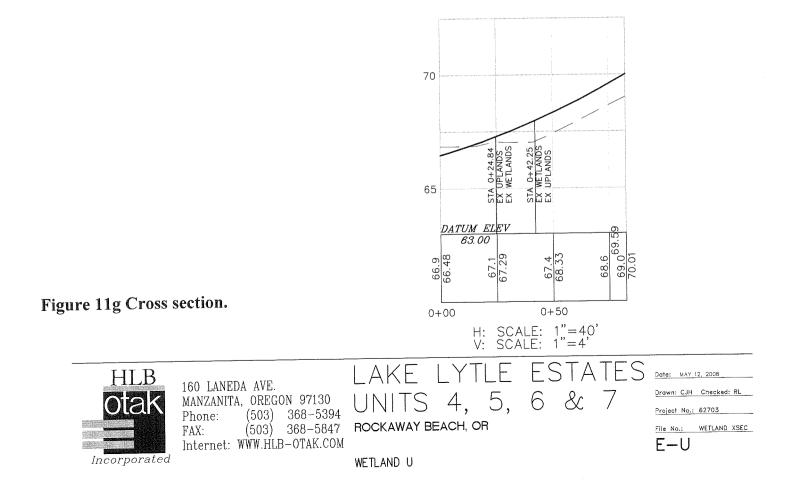


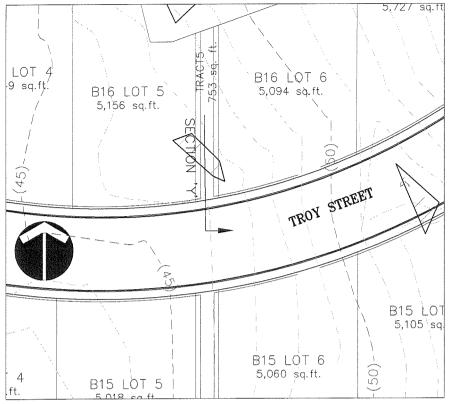




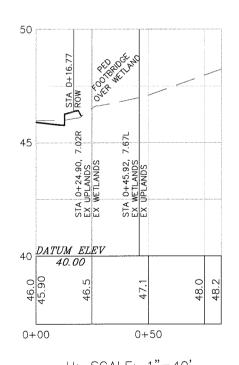


SCALE: 1"=40'



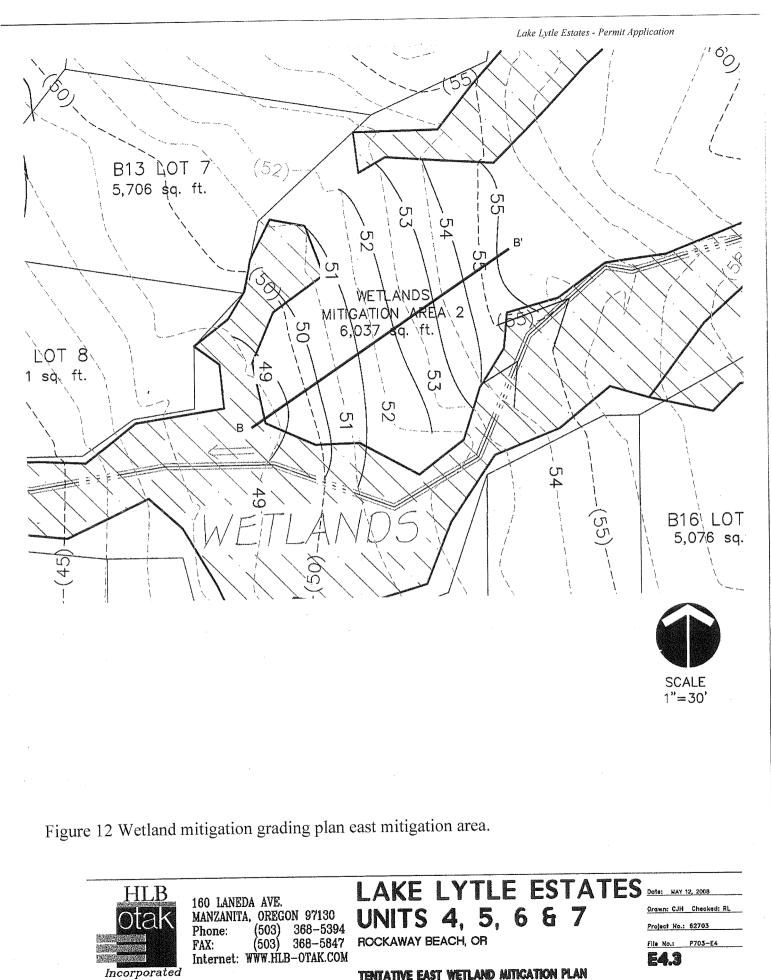


SCALE: 1"=40'

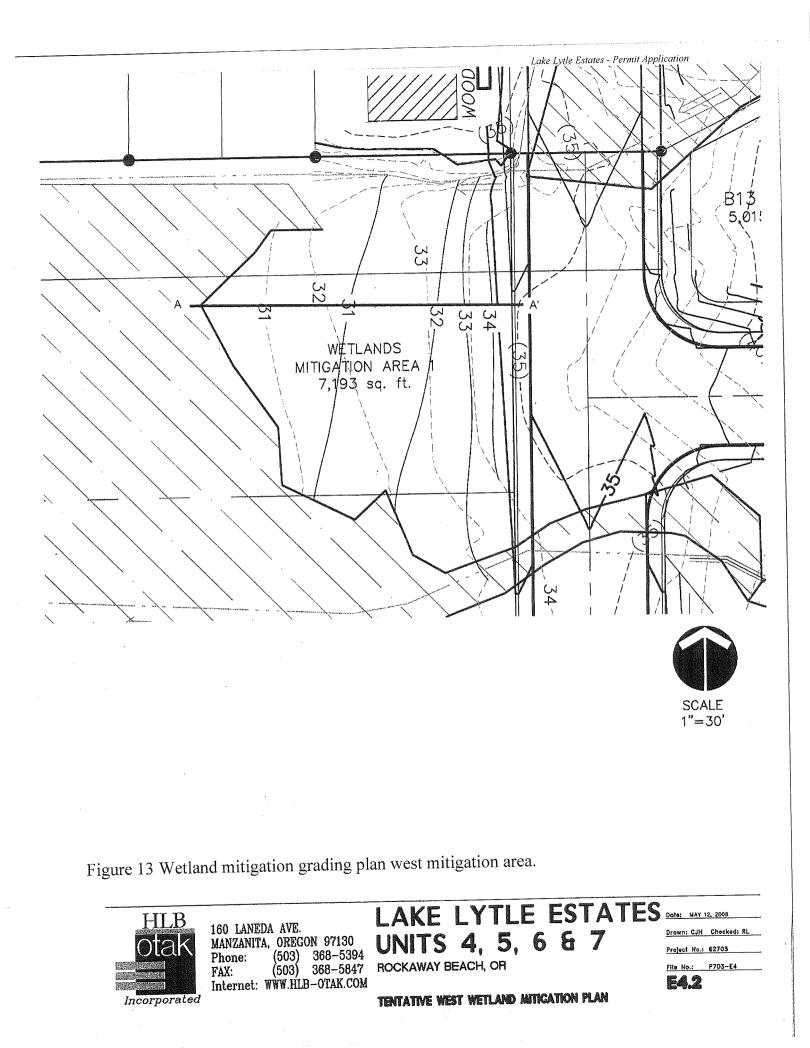


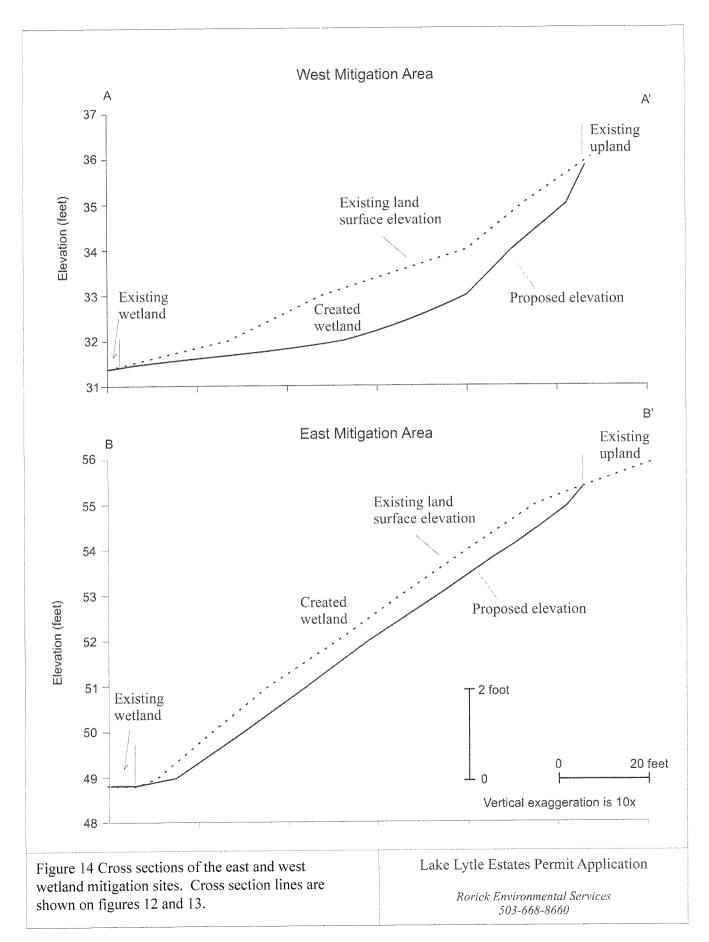
## Figure 11h Cross section.

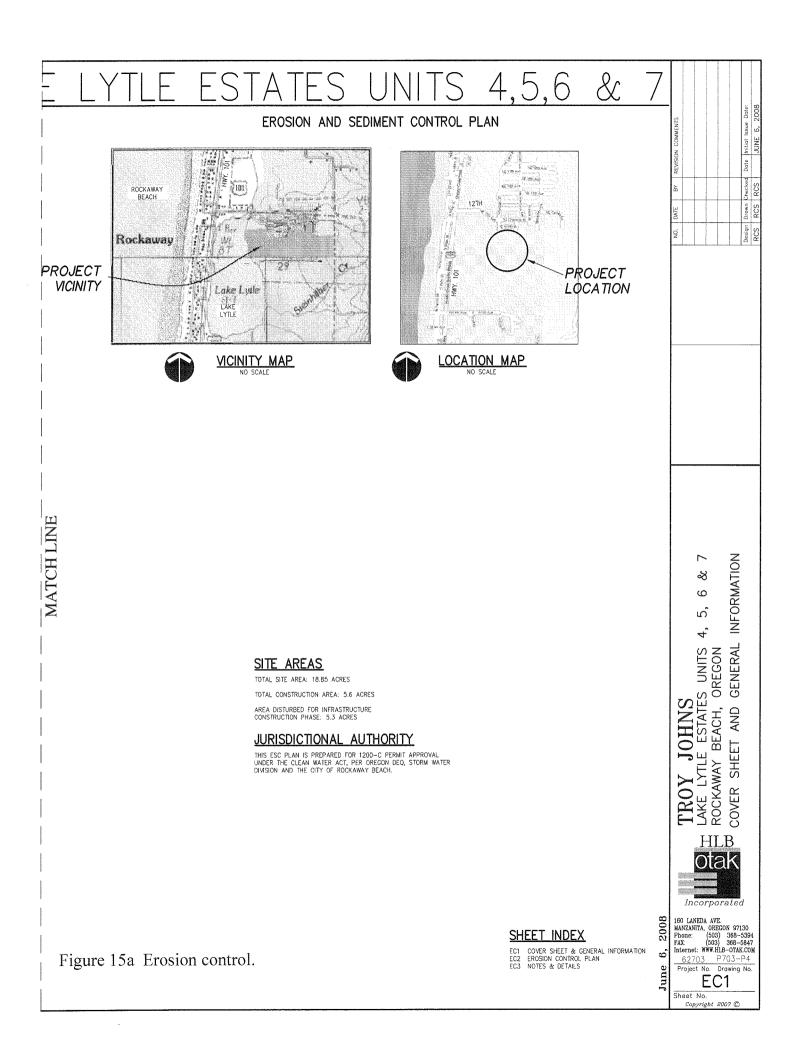




TENTATIVE EAST WETLAND MITICATION PLAN







#### **GENERAL NOTES**

1. ATTENTION CONTRACTORS: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTUITY NOTFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. TOU OBTAIN COPIES OF THE RULES BY CALLING THE CENTER (NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 1-800-332-2344. AT LEAST TWO (2) BUSINESS DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OREGON UTILITY NOTIFICATION CENTER OF THE DATE AND LOCATION OF THE PROPOSED CONSTRUCTION, AND THE TYPE OF WORK TO BE PERFORMED.

2. ALL EXISTING FACILITIES TO BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETIER THAN ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ENGINEER.

3. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. CONTACT UTILITY COMPANIES FOR PREMARKING. POTHOLE ALL UTILITY CROSSINGS BEFORE CONSTRUCTION TO PREVENT GRADE AND ALIGNMENT CONFLICTS.

4. ALL CONSTRUCTION SHALL BE COMPLETED ACCORDING TO THE REQUEREMENTS OF THE GEDTECHNICAL REPORT PREPARED FOR THIS PROJECT BY GEDTECH SOLUTIONS INC. DATED APRIL 09, 2007. CONTRACTOR SHALL OBTAIN GEOTECHNICAL ENGINEER'S APPROVAL PRIOR TO START OF ANY FARTHWORK

5. CONTRACTOR SHALL RESTORE ALL SURFACES TO MATCH EXISTING AND ADJACENT GRADES

#### EROSION CONTROL NOTES

#### MATERIALS

SEDIMENT FENCE SYSTEM SHALL BE THE "ENVIROFENCE" SEDIMENT FENCE SYSTEM MANUFACTURED BY AMOCO, INC., OR APPROVED EQUAL. THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 30 INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).

#### CONSTRUCTION

2. <u>GENERAL</u>- ALL EROSION CONTROL PRODUCTS AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON THE PLANS. ALL EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE UNTIL ALL RESEEDING EFFORTS ARE COMPLETED AND VEGETATION HAS TAKEN ROOT, OR AS DIRECTED BY THE ENGINEER.

3. <u>SEDIMENT FENCES</u> – THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHERE JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY SEALED. THE GROUND (MINIMUM OF 24 INCHES). A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6' (MDE) X 6' (DEEP) ALONG THE LINE OF POSTS AND DOWN-SLOPE FROM THE BARRIER. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THER USEFUL PURPOSE, BUT NOT BEFORE THE DOWN-SLOPE AREA HAS BEEN PERMANENTLY SEEDED AND STABILIZED. SEE DETAIL 1, THIS SHEET

4. <u>MAINTENANCE OF SEDIMENT FENCES</u> – SEDIMENT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL BY THE CONTRACTOR. ANY REQUIRED REPAIRS SHALL BE MADE MMEDIATELY BY THE CONTRACTOR. SHOULD THE FABRIC ON A SEDIMENT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE INCESSARY. THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH. APPROXIMATELY 1/3 THE HEIGHT OF THE BARRIER.

5. <u>REMOVAL OF EROSION CONTROL STRUCTURES</u> - ANY MATERIAL REMAINING IN PLACE AFTER THE FENCE OR BARRIER IS NO LONGER REQUIRED SHALL BE GRADED TO CONFORM TO THE EXISTING GRADE AND RE-SEEDED.

#### GENERAL

6. SOIL CONSERVATION OR GEOTECHNICAL REPORTS SHALL BE USED WHERE AVAILABLE TO DETERMINE SOIL TYPES AND ANY SPECIFIC EROSION CONTROL MEASURES FOR THAT SOIL TYPE. SEE "SOIL TYPES" TABLE, SHEET EC1.

7. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

8. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

9. THE ESC FAOILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE SEDIMENT AND SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.

10. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED EVERY TWO WEEKS OR WITHIN THE 24 HOURS FOLLOWING A STORM EVENT.

12. WHENEVER PRACTICAL, CLEARING AND GRADING SHALL BE DONE IN A PHASED MANNER TO PREVENT EXPOSED OR INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION.

13. ALL STOCKPILED ORGANIC MATERIALS/SOILS NOT SUBJECT TO IMMEDIATE USE, SHALL BE COVERED WITH PVC SHEETING AND THIS COVERING SECURED WITH ROPES AND SANDBAGS, SEE DETAIL 6, SHEET EC3

THE ENGINEER AND THE CITY WILL RETAIN THE AUTHORITY TO INSPECT AND MODIFY ANY CONSTRUCTION 14. THE ENGINEER AND THE CIT THE RELATION THE ADDITION TO THE ENGINEER AND DESCRIPTION CONTROL PLAN BY THE DEVELOPER/CONTRACTOR WILL REQUIRE APPROVAL BY THE ENGINEER.

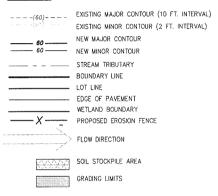
#### Figure 15b Erosion control.

#### SOIL TYPES

SCS ID	CLASSIFICATION	WIND ERODIBILITY RATING	WATER ERODIBILTY RATING
178	CHITWOOD-HEBO COMPLEX	6	0.28
59B	CHITWOOD-KNAPPA MEDIAL SILT LOAMS	6	0.28

TABLE SOURCE: UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE WEBSITE: http://websoilsurvey.nrcs.usda.gov/app/

#### LEGEND



#### STORM WATER MANAGEMENT PLAN

PRIOR TO ANY SIGNIFICANT EXCAVATION

- 1. INSTALL BEST MANAGEMENT PRACTICE (BMP) FOR EROSION PREVENTION
- 2. INSTALL CONSTRUCTION ENTRANCE
- 3. MAINTAIN AS MUCH EXISTING VEGETATION AS POSSIBLE

#### DURING CONSTRUCTION

 IF THE CONSTRUCTION ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, ALTERNATIVE MEASURES TO KEEP STREETS FREE OF SEDIMENT MUST BE USED. THESE INCLUDE STREET VACUUM SWEEPING AND PLACING SEDIMENT IN DESIGNATED STOCKPILE, INCREASING THE DIMENSIONS OF THE ENTRANCE AND/OR INSTALLATION OF A WHEEL WASH.

2. REMOVE ANY SOIL THAT LEAVES THE SITE AND ENTERS DOWNSTREAM DRAINAGE SYSTEM

3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION, SEDIMENT AND POLLUTANT CONTROL MEASURES, TEMPORARY AND PERMANENT, IN PROPER FUNCTIONING ORDER. WITHIN 24 HOURS FOLLOWING A STORM OR HIGH WIND EVENT, THE CONTRACTOR MUST ADJUST, REPAR AND REPLACE EROSION, SEDIMENT AND POLLUTANT CONTROL MEASURES TO ENSURE THAT THE MEASURES ARE FUNCTIONING PROPERLY.

ALL STOCKPILED MATERIALS SHALL BE PROTECTED WITH TEMPORARY SOIL STABILIZATION MEASURES SUCH AS PLASTIC SHEETING SECURED WITH TIE DOWNS AND SAND BAGS.

#### UPON COMPLETION OF EXCAVATION

RE-SEED ALL DISTURBED SOILS. SEED SHALL BE FROM BLUE TAG STOCK AND FROM THE LATEST CROP AVAILABLE. THE FOLLOWING MIXTURES ARE APPROPRIATE FOR THE OREGON NORTH COAST:

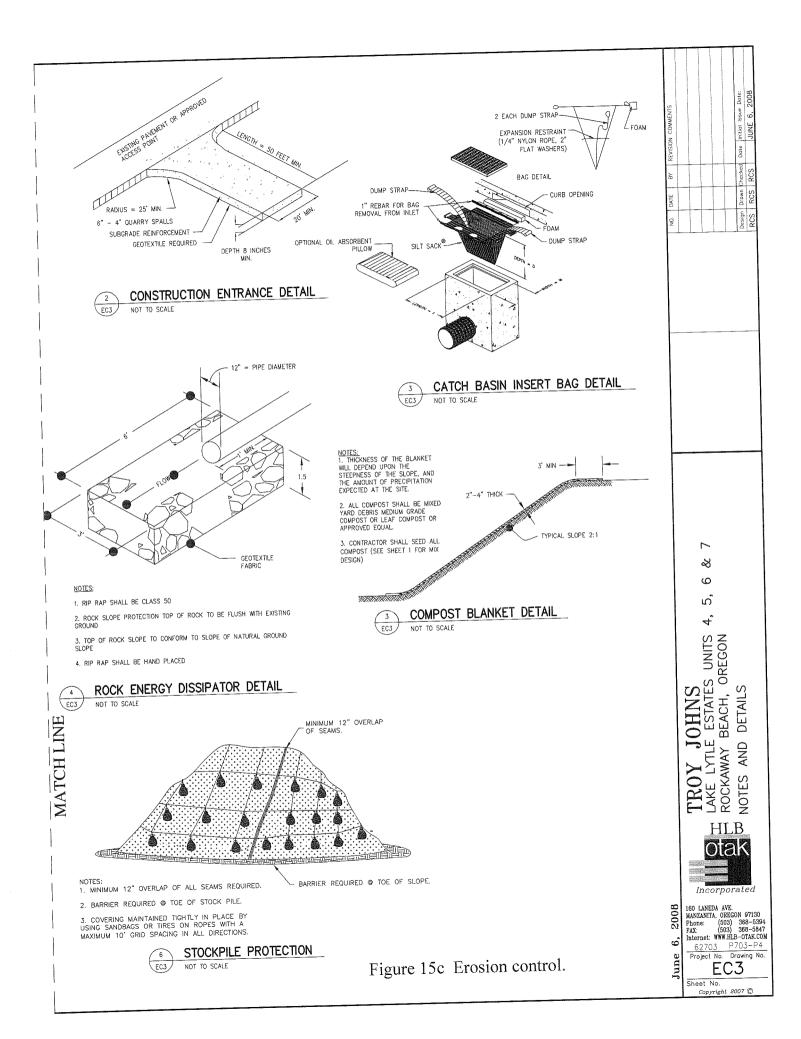
3 LBS/ACRE 9% 18 LBS/ACRE 52% 8 LBS/ACRE 24%

LBS/ACRE

SOIL CONSERVATION MIX: HYBRID RYE TALL FESCUE CREEPING RED FESCUE BENT GRASS BIG TREFOIL

WETLAND / SWALE SEED MIX: AMERICAN SLOUGH GRASS TUFFTED HAIRGRASS BLUE WILD RYE RED FESCUE WESTERN MANNAGRASS

	3% 12%
0.6 LBS/ACRE 3.6 LBS/ACRE	2% 12%
13.8 LBS/ACRE	46%
11.4 LBS/ACRE	38%
0.6 LBS/ACRE	2%



 HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS. (SCHEDULE A.5.B.I.(3))

2. THE ESOP MUST BE KEPT ONSITE AND ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED IN SUCH A MANNER TO ENSURE THAT SEDIMENT OR SEDIMENT LADEN WATER THAT ENTERS OR IS LIKELY TO ENTER SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATER, ROADWAY, OR OTHER PROPERTIES DOES NOT OCCUR. (SCHEDULE A.3.A.) AND (SCHEDULE B.3.B.)

3. THE IMPLEMENTATION OF THE ESCP AND CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THE EOSION AND SEDIMENT CONTROL MEASURES IS THE RESPONSIBILITY OF THE PERMIT REGISTRANT UNTL ALL CONSTRUCTION IS COMPLETED AND APPROVED BY THE LOCAL DEVELOPMENT ACENCY AND VEGETATION/LANDSCAPING IS ESTABLISHED. THE PERMIT REGISTRANT SHALL BE RESPONSIBLE FOR MAINTENANCE AFTER THE LOTS ARE APPROVED, UNTIL THE LOTS ARE SOLD AND THE 1200-C PERMIT IS TERMINATED. (SCHEDULE A.4.A) AND (SCHEDULE D.3.)

4. THE PERMIT REGISTRANT MUST BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH LOCAL, STATE, OR FEDERAL REGULATIONS. (SCHEDULE A.5.A.) AND (SCHEDULE A. 6.A.)

5. EROSION AND SEDIMENT CONTROL MEASURES INCLUDING PERIMETER SEDIMENT CONTROL MUST BE IN PLACE BEFORE VECETATION IS DISTURBED AND MUST REMAIN IN PLACE AND BE MAINTAINED, REPAIRED, AND PROMPTLY IMPLEMENTED FOLLOWING PROCEDURES ESTABLISHED FOR THE DURATION OF CONSTRUCTION, INCLUDING PROTECTION FOR ACTIVE STORM DRAIN INLETS AND CATCH BASINS AND APPROPRIATE NON-STORM WATER POLULIDION CONTROLS. (SCHEDULE A.S.B.II.(2)), (SCHEDULE A.S.B.II.(7)), (SCHEDULE A.T.D.I.(2)) & (SCHEDULE A.T.F.)

6. BEGIN LAND CLEARING, EXCAVATION, TRENCHING, CUTTING OR GRADING AND EARTHWORK-SURFACE ROUGHING AFTER INSTALLING APPLICABLE SEDIMENT, EROSION PREVENTION AND RUNOFF CONTROL MEASURES NOT IN THE DIRECT PATH OF WORK. (SCHEDULE A.5.B.II.(5)(A)). (SCHEDULE A.7.C.II.(1)) AND (SCHEDULE A.7.C.II.(1))

7. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS S GRADING PROGRESSES AND FOR ALL ROADWAYS INCLUDING GRAVEL ROADWAYS. (SCHEDULE A.S.B.II.(5).(B), (SCHEDULE A.S.B.II.(5).(C) & SCHEDULE A.S.B.II.(6).)

8. WET WEATHER BMPS: CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND ON SLOPES GREATER THAN FIVE (5) PERCENT FROM OCTOBER 1 THROUGH MAY 31 EACH YEAR. (SCHEDULE A.T.A.I.)

9. WET WEATHER BMPS: TEMPORARY STABILIZATION OF THE SITE MUST BE INSTALLED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND OR AT THE END OF EACH WORKDAY IF RAINFALL IS FORECAST IN THE NEXT 24 HOURS AND EACH WEEKEND AND HOLIDAY. (SCHEDULE A.7.A.II.)

10. IDENTIFY, MARK, AND PROTECT (BY FENCING OFF OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VECETATION INCLUDING IMPORTANT TREES AND ASSOCIATED RODTING ZONES AND VECETATION AREAS TO BE PRESERVED. IDENTIFY VECETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERMETER AREAS. PRESERVE EXISTING VECETATION AND RE-VECETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. (SCHEDULE A.S.B.I.(1) & (2)) AND (SCHEDULE A.T.C.III.(1))

11. PROVIDE PERMANENT EROSION PREVENTION MEASURES ON ALL EXPOSED AREAS TO PREVENT FROM BECOMING A SOURCE OF EROSION AND REMOVE ALL TEMPORARY CONTROL MEASURES, UNLESS LOCAL ORDINANCES REQUIRE OTHERWISE, AS AREAS ARE STABILIZED. (SCHEDULE A.S.B.II.(B)) AND (SCHEDULE A.T.C.II.(2))

12. ALL TEMPORARY SEDIMENT CONTROLS MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SCHEDULE A.7.C.III.(3)) & (SCHEDULE A.7.C.III.(4))

13. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ALONG THE SITE PERIMETER ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AND AT ALL ACTIVE AND OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION. (SCHEDULE A.7.D.1(1) - (2))

14, PRIOR TO ANY LAND DISTURBING ACTIVITIES EACH SITE MUST HAVE GRAVELED, PAVED, OR CONSTRUCTED ENTRANCES, EXITS AND PARKING AREAS WITH EXIT TRE WASH TO REDUCE THE TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS. (SCHEDULE A.T.D.III.(1))

15. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER WATERTIGHT TRUCKS MUST BE USED OR LOADS MUST BE DRAINED ON-SITE UNTIL DRIPPING HAS BEEN REDUCED TO MINIMIZE SPILLAGE ON ROADS. (SCHEDULE A.Z.D.III(3))

16. TEMPORARY STABILIZATION OR COVERING OF SOIL STOCKPILES AND PROTECTION OF STOCKPILE LOCATED AWAY FROM CONSTRUCTION ACTIVITY MUST OCCUR AT THE END OF EACH WORKDAY OR OTHER BMPS, SUCH AS DIVERSION OF UNCONTAMINATED FLOWS AND INSTALLATION OF SEDMENT FENCES AROUND STOCKPILES, MUST BE IMPLEMENTED TO PREVENT TURBID DISCHARGES TO SURFACE WATERS. (SCHEDULE A.7.E.I.(1)) & (SCHEDULE A.7.E.I.(1) - (3))

17. BMPS THAT WILL BE USED TO PREVENT OR MINIMIZE STORM WATER FROM BEING EXPOSED TO POLLUTANTS FROM SPILLS, NO DISCHARGE OF CONCRETE TRUCK WASH WATER, VEHICLE AND EQUIPMENT CLEANING, VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE, OTHER CLEANING AND MAINTENANCE ACTIVITIES, AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OLLS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, LEFTOVER PAINTS, SOLVENTS, AND GLUES FROM CONSTRUCTION OPERATIONS. (SCHEDULE A.T.E.I.(2))

 ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL. (SCHEDULE A.7.E.III.(2))

19. SOLID WASTE AND HAZARDOUS MATERIALS MANAGEMENT. FOLLOW PROJECT WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES; REGULAR MANTENANCE SCHEDULE FOR VEHICLES AND MACHINERY; AND MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, MATERIAL USE, COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SCHEDULE A.Z.E.III(3))

20. THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES. USED OILS. CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION AND MEET ALL STATE AND FEDERAL REGULATIONS AND APPROVALS. (SCHEDULE A.T.E.III.(4))

21. THE ESCP MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES MUST BE UPGRADED AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION AND SEDIMENT CONTROL REQULATIONS. CHANGES TO THE ESCP MUST ALSO BE SUBMITTED IN THE FORM OF AN ACTION PLAN TO DEQ OR ITS AGENT FOR APPROVAL. (SCHEDULE A.7.F.)

22. SIGNIFICANT AMOUNTS OF SEDIMENT, WHICH LEAVES THE SITE, MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE DERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIME FRAME. (SCHEDULE A.7.F.).(1)) 23. VACUUMING OR DRY SWEEPING MUST BE USED TO CLEAN-UP RELEASED SEDIMENT AND MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES. (SCHEDULE A.7.F.1.(2))

24. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. TIME-RELEASE FERTILIZERS SHOULD BE USED WITH CARE WITHIN ANY WATERWAY RIPARIAN ZONE. (SCHEDULE A.7.F.1.(3))

25. SEDIMENT MUST BE REMOVED FROM BEHIND A SEDIMENT FENCE WHEN IT HAS REACHED A HEIGHT OF 1/3 The HEIGHT of the fence aboveground and before fence removal. (Schedule A.7.F.II.(1))

26. SEDIMENT MUST BE REMOVED FROM BEHIND BIO BAGS AND OTHER BARRIERS IT HAS REACHED A HEIGHT OF TWO (2) INCHES AND BEFORE BMP REMOVAL. (SCHEDULE A.7.F.IL.(2))

27. REMOVAL OF TRAPPED SEDIMENT IN A SEDIMENT BASIN OR SEDIMENT TRAP OR CATCH BASINS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY (50)% AND AT COMPLETION OF PROJECT. (SCHEDULE A.7.F.II.(3) & (4))

28. DEQ MUST APPROVE OF ANY TREATMENT SYSTEM AND OPERATIONAL PLAN THAT MAY BE NECESSARY TO TREAT CONTAMINATED CONSTRUCTION DEWATERING OR SEDIMENT AND TURBIDITY IN STORM WATER RUNOFF. (SCHEDNIF A.7.F.III.)

29. SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR THIRTY DAYS OR MORE, THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VECETATION OR A HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD. (SCHEDULE A.8.A.)

30. SHOULD CONSTRUCTION ACTIVITIES CEASE FOR FIFTEEN (15) DAYS OR MORE ON ANY SIGNIFICANT PORTION OF A CONSTRUCTION SITE TEMPORARY STABILIZATION IS REQUIRED FOR THAT PORTION OF THE SITE WITH STRAW, COMPOST, OR OTHER TACKIFIED COVERING THAT PREVENT SOIL OR WIND EROSION UNTL WORK RESUMES ON THAT PORTION OF THE SITE. (SCHEDULE A.8.B.)

31. DAILY INSPECTIONS WHEN RAINFALL AND RUNOFF OCCURS OF THE BMPS AND DISCHARGE OUTFALLS MUST BE THE PROJECT ESOP INSPECTOR. THESE INSPECTIONS AND OBSERVATIONS MUST BE RECORDED IN A LOG THAT IS AVAILABLE ON SITE. (SCHEDULE A.B.B.L) & (SCHEDULE B.1.B(1))

32. BMPS MUST BE INSPECTED BEFORE, DURING, AND AFTER SIGNIFICANT STORM EVENTS. (SCHEDULE A.7.F.)

33. ALL ESCP CONTROLS AND PRACTICES MUST BE INSPECTED VISUALLY ONCE TO ENSURE THAT BMPS ARE IN WORKING ORDER PRIOR TO THE SITE BECOMING INACTIVE OR IN ANTICIPATION OF SITE INACCESSIBILITY AND MUST BE INSPECTED VISUALLY ONCE EVERY TWO (2) WEEKS DURING INACTIVE PERIODS GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS. (SCHEDULE B.1.B.(2)-(3))

34. IF PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT AND ACCESSIBLE DISCHARGE POINT OR DOWNSTREAM LOCATION DURING PERIODS WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER. (SCHEDULE B.1.B.(4))

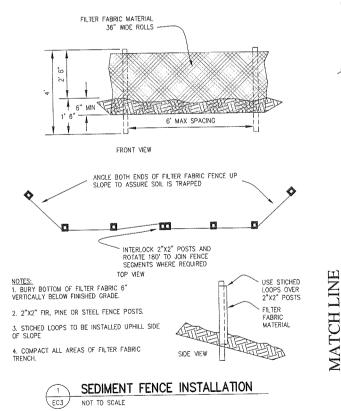
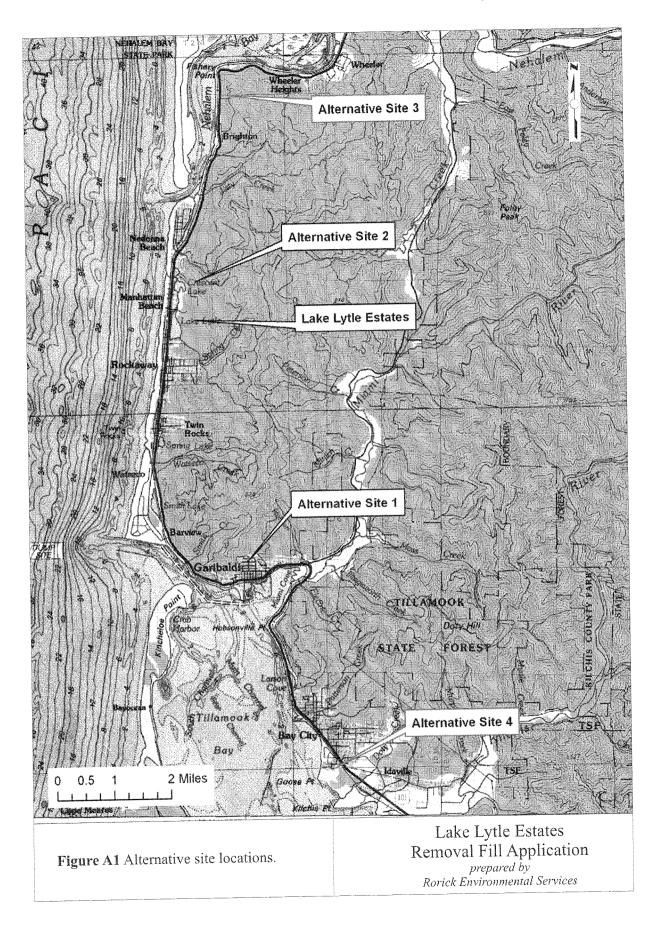
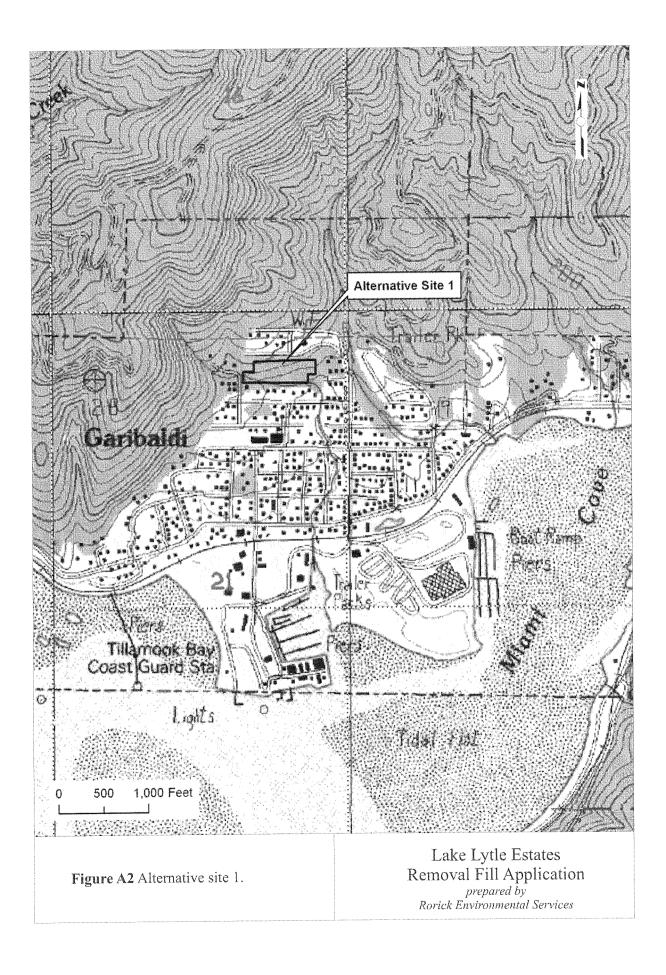
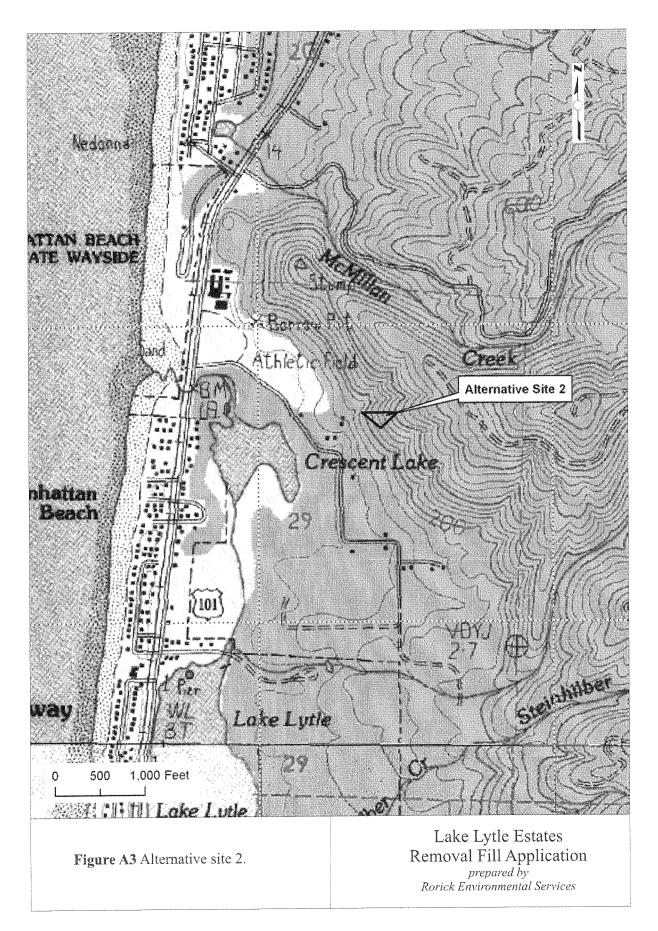
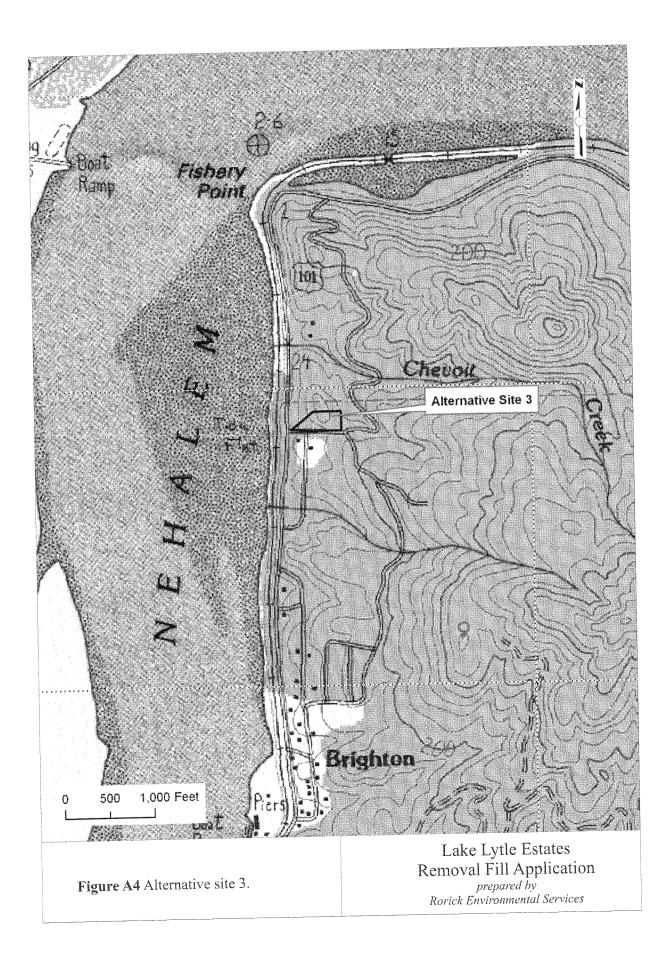


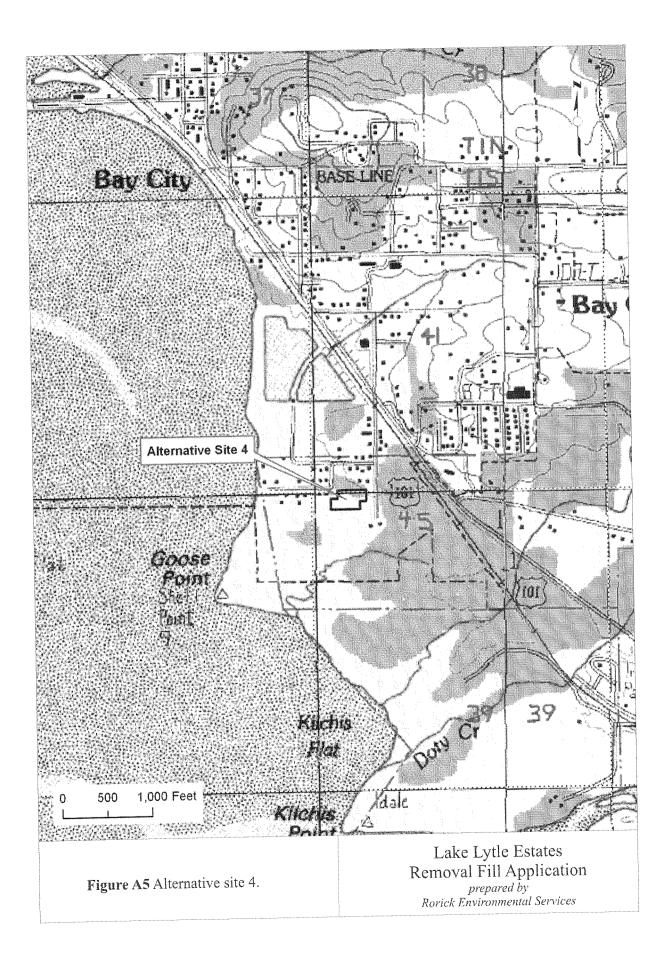
Figure 15d Erosion control.

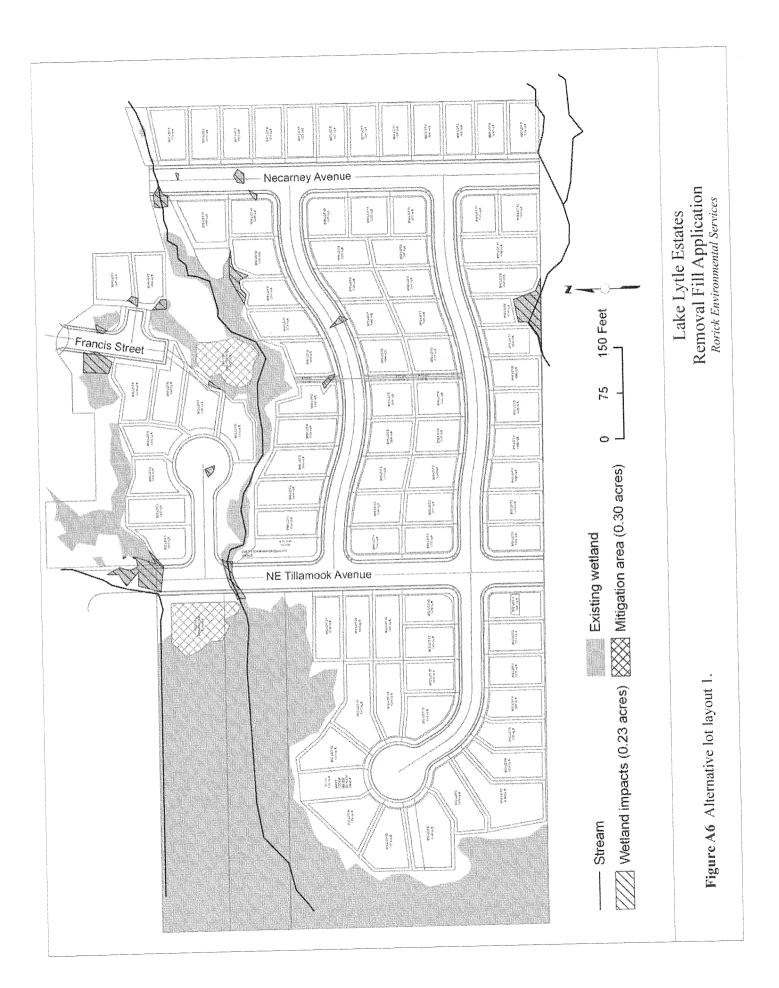


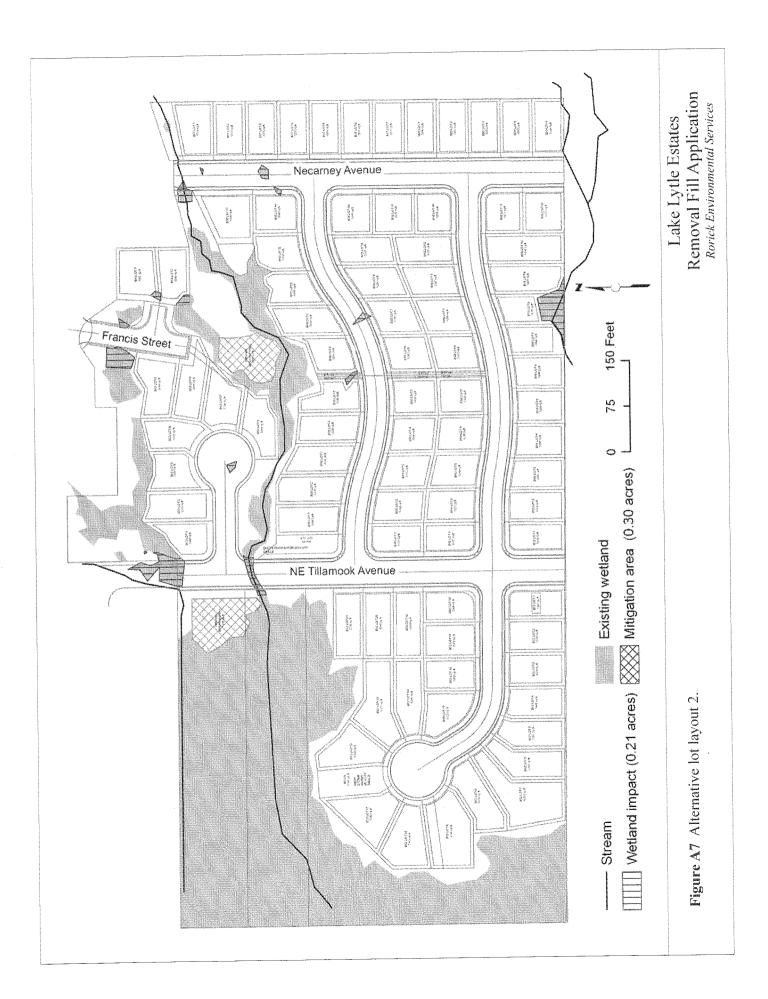


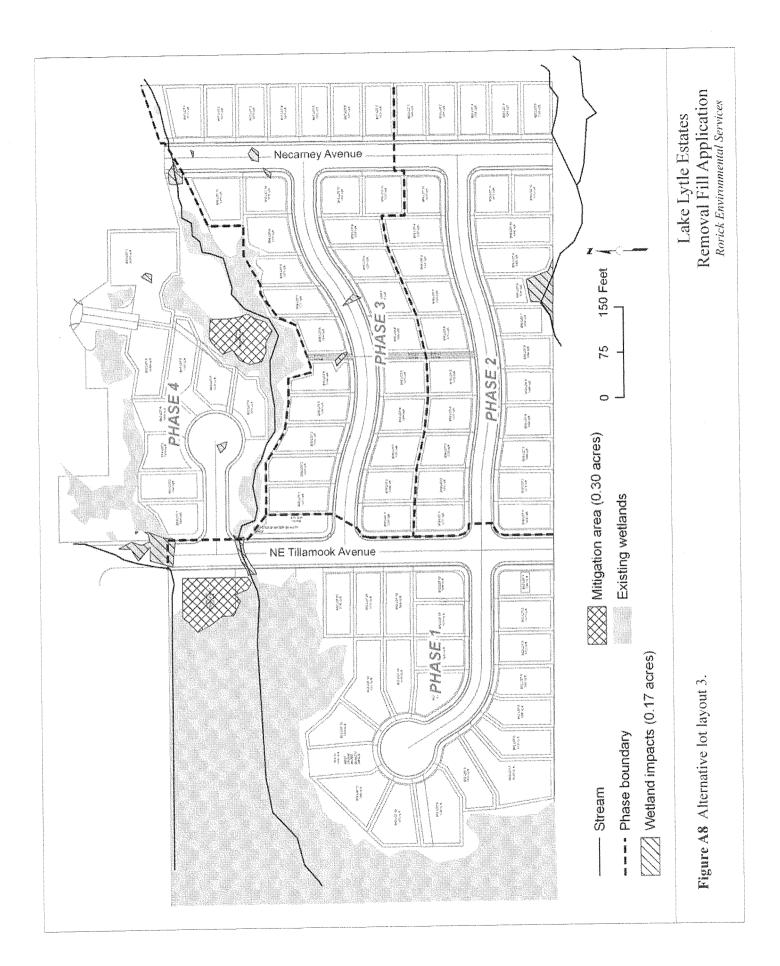


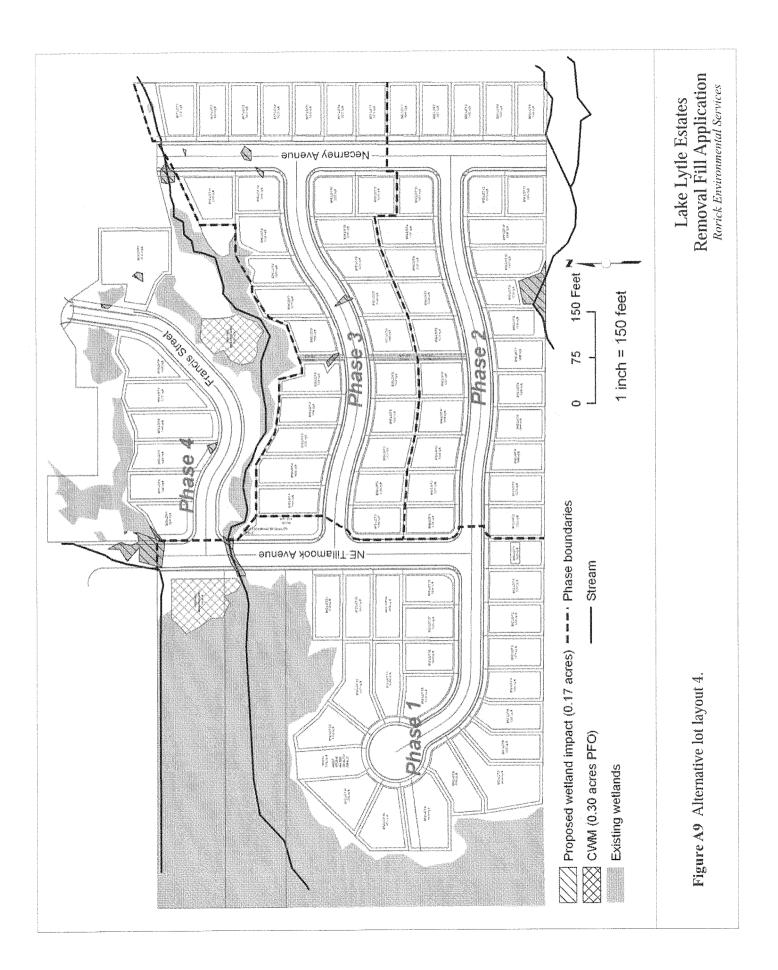














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# **Over-55 buyers** passing on **McMansions**

LUITOR, NEWDAN FLUUDE \* DUD'LET DAID KENDRAHOGUE@NEWS.OREGONIAN.COM

he move-down market is really moving across - and it's keeping its money closer to home. Homebuyers age 55 and over are seeking homes approximately the same size as their present home and, unlike six years ago, they no longer prefer to pay cash. In 2002, 60 percent of builders reported that buyers paid cash, while only 23 percent of builders in 2008 described their customers as cash buyers.

Fixed-rate loans dominate a new 55-phis buying market study with adjustable-rate mortgages running neckand-neck in popularity with reverse mortgages.

The down payment information was part of a new national study conducted by the National Association of Home Builders and MetLife Mature Market Institute, a research subsidiary of MetLife Inc., the huge insurance provider. Nearly half of builders (46 percent)



## **FISING SUPPLEMENT**

THE SUNDAY OREGONIAN . OCTOBER 11, 2009

# Kelly: Glamour spending down

Continued from Page H1 reported that 55-plus homebuyers are buying homes in their communities that are about the same value as their previous home; 31 percent reported buyers are buying homes that are less than the value of their previous home; and 23 percent of builders reported that 55-plus crowd is buying homes that are more than the value of their previous home.

"The McMansion Revolution is over," said Steven Bomberger, a member of NAHB's 55-Plus Housing Council, "There's not as much spending on glamour glitz."

In each of the past six NAHB 55-plus surveys, the size of the home requested by buyers continued to be about the size of their previous home. This year's data showed the most popular size at 1,900 square feet — and 79 percent wanted that space on one floor, up from 17 percent in 1970.

"The demand for a singlestory home increases as the age

t # 0

of the respondent increases," said David Crowe, NAHB's chief economist.

The median price respondents expect to pay for their next home is \$189,426, which is less than the median price of \$198,119 paid by those respondents who bought a home within the last three years. This compares to their current home, which has an average market value of \$267,401.

Previous studies have clearly shown that a majority of older homeowners choose to age in place and the most recent NAHB data echo those desires. Nearly two-thirds of the respondents (63 percent) plan to age in their current home, while 12 percent plan to buy another home. The remaining 26 percent are not sure.

John Migliaccio, director of research for MetLife Mature Market Institute, said the biggest disconnect regarding what builders are providing and what

DEATENI

buyers are willing to pay for has to do with green building and universal design. Builders seem to be doing a very good job of including more amenities such as lever-handle/door knobs, wider doors and hallways, separate shower and bath, but consumer preferences do not reflect an equal appreciation.

"It continues to be an education process," Migliaccio said. "Buyers simply don't know what they don't have."

For example, only 12 percent of respondents said they would pay more for an environmentally friendly home. They are willing to pay an average amount of \$6,732 (median \$4,000) if it would save \$1,000 annually in utility costs. While another 23 percent said they are concerned about the environment, it does not drive their decision to purchase.

Columnist Tom Kelly can be reached at tomkelly.com.

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Finding Oregon Coast property for sale on a piece of your own land along the sandy beaches would be divine. Not only that, but it's a great investment. The demand for Oregon Coast vacation homes for sale, land for sale, condos, and other real estate is great. The costs are nothing to sneeze at, but I quess it all depends on what kind of price tag you would put on your own little piece of nirvana.

There are two primary types of Oregon Coast property you'll be considering: vacation property or residential property. The demand is greater on the North coast than any other portion for both kinds. Beachfront homes can easily range from \$850,000 to \$1,000,000.

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All Oregon Coast real estate is moving extremely well, it's just that the homes in the Northern section seem to be going quicker and appreciating better. Of course, you are always going to be paying more for something right on the beach as opposed to something further inland. You should be able to pick up an average home in town for around \$180,000. Something fancy on the beach, though, could possibly run you four or five time that much.

Oceanfront property offers a great return with prices rising faster than inflation and showing no signs of falling. It all comes down to demand for something along the Oregon Coast to call your very own. Only about half of the coast land is privately owned, with the rest of what is buildable already being developed. Oregon Coast homes for sale are getting hard to come by. Nonetheless, older homes are being renovated and people are placing their own houses on smaller slivers of land, just to get a piece of the pie. The fact is, the Oregon Coast is a fantastic place to live and people are clamoring to get there on a permanent basis.

Although the narcotic effect of wanting coastal properties is always present (and as close to the beach as possible), there are some serious considerations that you need to make before you take the plunge.

A couple things to ask yourself if you are looking at vacation property: Is there is enough recreational actives in the area to help it retain it's value? Experts say that's an important thing to look for. Also,



make sure you count the cost and look at the realities of maintaining your vacation home. Will you be doing it yourself or will you look at a second party to do it?

When it comes to any beachfront home that you plan to live in fulltime, know that the ocean can be brutal at times, dealing out a good deal of erosion. The last thing you would want is to see your beautiful new home sink into the waters. You may consider hiring an

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#### **Oregon Coast Properties**

engineer to look into it for you. The land is an important thing to think about as you decide your home's placement. A firm foundation is essential in the planning stages. Always build a few extra yards from the ocean than what you were thinking. Better safe than sorry. ;)

Your oceanfront home will be built on one of three general categories of land:

- Basalt
- Sedimentary soils, such as sandstone and near-stone formations
- Sand

Basalt is the best you can get for your property. It does erode, but the rate at which it happens is hardly even a consideration. The worst you'll have to worry about if building on Basalt is how the salt will effect your windows and exposed metal, as well as winter storms.

The sedimentary soils are sturdier than sand, but, as is with all land sitting near the ocean, erosion is always going to be a fact. It's just how fast it's going to happen.

Sand is the other end of the Basalt spectrum. Although it can be an excellent source of stability, the amount of erosion is once again a factor. Building further inland will always be safer, regardless of the type of land you decide to build on.

**Riprap** is something that many people want to use to keep the erosion at bay and harden the shore.

Riprap is a permanent cover of rock used to stabilize the land and reduce water erosion. Although it gives piece-of-mind to the homeowner, riprap can cause it's own issues. If you expect that you will eventually have a need to install riprap to preserve your oceanfront home, you will need to contact the Oregon State Parks for a approval and a permit. If the property you plan to purchase was totally underdeveloped before January 1st of 1997, don't bother trying to get a permit from them. Oregon legislation forbids them from issuing one. You may want to consider having a geologist look at any land before you decide on it. That will help you avoid any problems in the future.



An example of riprap

The Oregon Coast boasts a number of good builder associations to help you wade through the contractors and subcontractors available to help you break

ground on your new piece of land. One good website to check for builder associations in Oregon is at <a href="http://www.contractorfind.com/assoc/or.htm">www.contractorfind.com/assoc/or.htm</a>. You can also check with the chamber of commerce for your area or contact the Oregon Building Industry Association at (503) 378-9066 or on the Internet at <a href="http://www.obia.net">www.obia.net</a>.

Any contractor you end up hiring, check to make sure that they have a valid and current registration number with the State of Oregon. This permit will offer you some (but not comprehensive) financial protection, just in case something should go wrong. There is a 24-hour contractor inquiry line you can call. The number is (503) 378-4610.

It may sound like a lot to do, but buying a home anywhere is a major deal. Don't let a few necessary hurtles and expenses discourage you from making your dream of having some Oregon Coast property a reality. Once you get all the formalities out of the way and your dream home built, waking to the sounds and sights of the Oregon Coast every morning will pay you back over and over again.

Oregon Coast Properties



An Oregon Coast home can be yours!

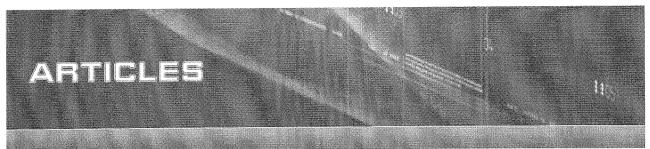
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# Oregon coast real estate

The Oregon Coast a region of the state of Oregon in United States. The *Oregon Coast* forms the western border of the state, and stretches approximately 583 km from the Columbia river in the north of Oregon. The Oregon Coast includes the entire coast line of Oregon.

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Everyone dreams for a home. The latest dream is to own a dream home with materials that is environment friendly, furnishing home with energy saving appliances, avoiding wastage and using natural resources to the maximum possible. *Oregon Coast* homes fulfill these dreams as natural way out. The rivers and valleys and greens spread all round help people achieve their desires better.

*Oregon Coast Real Estate* is becoming quite popular for many who live both inside and outside of the state. Real Estate along several sections of these coastlines is more and more difficult to have.

The *Oregon Coast* has beautiful vacation areas. These make it a perfect home for settlers. Several properties have views of rivers, lakes, sand dunes and trails. In the close proximity there are amazing state parks. The coastal terrain is a beautiful combination of sandy beaches and towering rock cliffs.

Property prices have recently seen strong growth, and with the limited supply, this is of no surprise. One can search for residential properties, Condos, multi-family or plots of land. The entire coastal belt is divided into Northern, Central, and southern Oregon coastal real estate. Through several websites on real estates one can search these areas for details of properties.

In Oregon one can find many rental properties such as: Beach house rentals, Apartments for rent, Oregon Coast Vacation rental homes, Cabins for rent, Cottages for rent, Condos and real estate for rent, Rental rooms, Single-family homes, duplexes and multiplexes, Houses/homes for rent. Rental homes and houses for rent are also growing slowly for many other industries such as Moving Companies, Home Insurance Companies and Furniture and Furnishing industries.

Real estate and homes are still priced reasonably here in a city. The city is very friendly and became very popular for its pleasant climate, culture and livability. Eugene offers real estate costs that are lower than

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many other areas. The mortgage rate ruling at Eugene is 5.25% for 10 year fixed, 4.92% for 15 year fixed, 5.26% for 5 year adjustable and 4.92% for I year adjustable. The average price of a house at East Eugene with 5 bedrooms and 7 baths is sold around 200,000. In southwest Eugene the average price of a house with 4 bedrooms and 5 bathrooms cost around \$300,000. A lower priced house at around \$180,000 can also be available in south west of Eugene with 4 beds and 4 baths. At Fairy Bridge Street still lower priced house at around \$120,000 with 4 beds and baths can also be available.

On national scale inventory levels of unsold housing plummeted by twelve percent, and have fallen below six months in several large metropolitan markets. Sales in the western states increased nearly fourteen percent last month and were thirty-two percent higher than the year before. In the south, sales were up by seven percent, and in the mid-west by four percent. Only the northeast states saw a decline in December a little over one percent. Nationwide, foreclosures and short sales accounted for about forty-five percent of December's transactions, but

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in some parts of California and Florida the percentage was much higher. In comparison Oregon is still charming and worth buying properties. Demand is high and supply falling.

Real Estate is one of the most valuable investments any one makes in his entire life. The real estate may be good home, or a duplex. Professional can help in finding a suitable house in suitable locality with necessary amenities, good neighbor, good infrastructure and other facilities. A good tenant if the house is for rent can be found by truly professional brokers. The first time home buyer should be conversant about the city to locate sellers of properties in the real estate market. The buyer should evaluate homes according to the budget only.

There are brokers and professional *real estate* agents to help in negotiations and make a deal for the selected house. They can be the real guide to select the house of the choice out of big listings with information on the homes vacant, neighborhood, zones utilities and nearby development plans.

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## Attachment A Compensatory Wetland Mitigation Plan

## Lake Lytle Estates

Rockaway Beach, Oregon Tillamook County

Prepared for:

Troy Johns 14801 NE 13<sup>th</sup> Circle Vancouver, WA 98684

Submitted by:

Nancy Rorick Rorick Environmental Services 37552 SE Rachael Drive Sandy, OR 97055 503-449-4372 nancy@rorickenvironmental.com

May 2010

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#### Section 1: Compensatory Wetland Mitigation Plan Overview

#### Ecological goals and objectives

The goal of the Compensatory Wetland Mitigation (CWM) is to compensate for impacts to 7553 square feet (0.17 acres) of jurisdiction wetland. The Oregon Department of State Lands (DSL) grants wetland creation credits at a ratio of 1.5:1. Therefore, the project will have successfully satisfied the permitting requirements when 0.26 acres of functioning palustrine forested wetland are created.

The 0.17 acres of wetland proposed for impact is palustrine forested wetland, of which 24% belongs to the HGM depressional class and 76% to the slope/flat class (figures 5 and 6).

HGM Class	Cowardin Class	Area (sq ft)
Depressional	PFO	1742
Slope / Flats	PFO	5811
Total		7553 sq ft
		0.17 acres

**Table 1** Wetland impact by HGM and Cowardin Class.

The ecological objective is to create 0.30 acres of palustrine forested / slope flat wetland. The desired plant community for the mitigation site is modeled after existing forested wetland on the project site. The project's wetland mitigation consists of an east and a west wetland mitigation area. The total area of the two mitigation sites is 0.30 acres. The DSL credit ratio for wetland creation is 1.5 to 1. Under this credit ratio the wetland mitigation plan will provide 0.20 wetland mitigation credits. The permitting requirements will be satisfied if 0.17 wetland mitigation credits are obtained from the wetland creation.

The applicant owns both tax lots 5201 and 5203, the development will occur on tax lot 5201 (figures 3a, 3b and 3c). On tax lot 5201, 2.23 acres of wetland will be preserved. Tax lot 5203 borders Lake Lytle and nearly all of the approximately 16.7-acre lot is wetland. This tax lot will be made available for donation to the City or interested land conservation group.

#### CWM concept in general terms

The CWM consists of two wetland mitigation sites (figures 7 and 8): the east wetland mitigation site (0.13 acres) and the west mitigation site (0.16 acres). Both sites are designed so that they will have the same hydrologic regime as the adjacent wetlands.

The east wetland mitigation site is located between two jurisdictional wetlands that contain seasonal streams. The site will be excavated down to the same elevation as the adjacent wetlands. This will provide hydrology to the wetland by: (1) allowing surface-water inflow from the adjacent wetland; and (2) lowering the land surface so that it intersects the water table.

The west wetland mitigation site is located in upland adjacent to the large wetland that connects to Lake Lytle. East of the mitigation is a small ditch that flows to the south. Again, wetland creation will be achieved by excavating down to the same elevation as the adjacent wetlands, so that it will receive surface-water inflow from the adjacent ditch and intercept the local high water table.

The proposed new wetlands are modeled after the adjacent existing wetlands. They will be palustrine forested wetlands. The planting list for the wetlands is based on the plants that are growing in the adjacent wetlands. The wetland creation areas will be graded so that they have an irregular surface. This will allow for pooling to provide for amphibian habitat. In addition, woody debris will be placed on the mitigation sites to provide additional habitat support.

#### Summary of CWM Acreage by Method and HGM and Coward Class / Sub Class

The wetland mitigation will consist of the creation of 0.30 acres of palustrine forested seasonally flood wetland that belong to the slope/flats HGM class.

Wetland Mitigation Area	Area (sq ft)	Credit Ratio	Credit	Cowardin	HGM
West mitigation area	7,193	Creation 1.5 to 1	4,795	PFOC	Slope / flats
East mitigation area	6,037	Creation 1.5 to 1	4,025	PFOC	Slope / flats
Total	13,230 sq ft 0.30 acres		8,820 sq ft 0.20 credits		

 Table 2 Proposed wetland mitigation credits.

#### Meets Ratios

The proposed wetland mitigation meets the DSL's wetland creation ratio of 1.5 to 1. The proposed wetland creation area is 0.30 acres which will provide 0.20 wetland mitigation credits. The amount of mitigation credit (0.20) exceeds the 0.17 acres of proposed wetland fill.

#### Summary of Net Gains and Losses of Functions and Values

There will be no net loss in the amount of jurisdictional wetland due to the creation of the compensatory wetland mitigation site. A loss in net function is not expected once the success criteria are met. There are few weeds on the site, so the incursion of non-native species can be addressed through minimal maintenance. The mitigation site is designed to mimic the habitat qualities of the impacted wetland by containing woody debris, micro topography and native vegetation.

Due to the conversion of 14.81 acres of upland forest to residential subdivision there will be a loss to those functions that require the support of upland habitat. These include song bird habitat, characteristic vegetation, and amphibian and turtle habitat.

#### Reference Site Location and Description or Reference Data

The reference wetlands for this project are the existing wetlands at the project site. These wetlands are relatively undisturbed and contain native vegetation adapted to site conditions. The species in the planting plan all grow in the existing wetlands. The referenced site is a palustrine forested wetland dominated by red alder, Sitka spruce, salmonberry, slough sedge and skunk cabbage.

#### Section 2: Compensatory Wetland Mitigation Site Information

Lake Lytle Estates is a proposed 85-lot subdivision located east of Lake Lytle and south of NE Smith Street in Rockaway Beach, Oregon (figures 1 -4). Troy Johns, the property owner, is proposing to develop the site for residential use. The surrounding land use consists of residential subdivision to the north, forested areas to the west, south and east, and Lake Lytle, also to the west.

	Area
Rights-of-Way	3.61 acres
Phase I Lots	3.10 acres
Phase II Lots	3.26 acres
Phase III Lots	3.58 acres
Phase IV Lots	1.26 acres
Open Space Tracts	4.04 acres
Site Total	18.85 acres

#### Table 3 Summary of the project area.

#### Table 4Project information.

Applicant and property owner	Troy Johns
	14801 NE 13 <sup>th</sup> Circle
	Vancouver, WA 98684
	360-600-4425
Legal location	T2N, R10W, SE 1/4 of Sec. 29
Tax map	Tax lot 5201 on tax map T2N R10W
Latitude / Longitude	45° 37.499,0' N, 123° 55.991,5' W
USGS Quadrangles	Garibaldi (1985) and Nehalem (1985)
Zoning	Residential / Resort

#### Section 3: Description of How the CWM Addresses the Principal Objectives

#### **Replaces Lost Functions and Values**

Existing functions impacted are those related to the conversion of adjacent upland from existing forest to residential subdivision: habitat for song birds, amphibians and turtles. Creation of the wetland mitigation will offset some of these impacts. Tax lot 5203 west

of the project site is owned by the applicant. Nearly all of this 16.7-acre tax lot is wetland, its preservation will also help maintain these functions. The tax lot will be made available for donation to the City or a land conservation group.

#### **In-Kind Replacement**

The wetland mitigation will be in kind. The proposed created wetlands belong to the slope/flat HGM class and are palustrine forested (figures 5 and 6).

#### Provides Local Replacement for Locally Important Functions and Values Lost

The CWM will be on site so replacement will be local. The CWM sites are modeled after adjacent wetlands and will have the same hydrologic regime, plant communities, and habitat features (i.e. woody debris) as the wetlands proposed for impact.

#### CWM is Self-Sustaining and Minimizes Maintenance Needs

The CWM does not have hydrologic structures such as a weir. Water flow into the CWM will be gravity fed from adjacent wetlands and thus self-sustaining. The mitigation site will be planted with native vegetation modeled after adjacent wetlands. To the extent possible, cuttings will be obtained onsite to insure that the plants in the CWM are adapted to site conditions. It is the consultant's experience with three CWM sites in Rockaway Beach that weeds are a minimal problem and that a CWM will be successful if the hydrology is functioning correctly.

#### Considerations for Locating Site Ecological Suitability

Construction of the new wetlands will involve the expansion of the existing wetlands. This allows the existing wetlands to be used as a guide in determining the excavation depth which, in turn, insures that the hydrologic regime of the existing wetlands will be duplicated in the created wetlands. The two mitigation sites will receive surface-water inflow and will be influenced by the existing high water table on the site. Having the same hydrologic regime facilitates the duplication of the native wetland plant community in the created wetland.

#### Minimizes Temporal Loss

Construction of the CWM will occur during the same construction season in which the wetlands are impacted.

#### Section 4: CWM Baseline Information

#### Wetland Delineation or Determination if Needed

Rorick Environmental Services (RES) submitted a wetland delineation report to the Oregon Department of State Lands on June 10, 2008. The wetland delineation (WD# 08-0188) was verified by DSL on June 10, 2008. The wetland delineation study area included all of tax lot 5201, a portion of tax lot 5203, and a 0.11-acre portion of the NE Tillamook Avenue ROW.

#### HGM and Cowardin class of any wetlands present at CWM site

RES delineated 4.968 acres of jurisdictional, freshwater wetland within the wetland delineation study area, of which 4.926 acres are on property owned by Troy Johns and 0.042 acres are within the ROW of NE Tillamook Avenue. The wetland delineation study area included tax lot 5201, the eastern portion of tax lot 5203, and the NE Tillamook Avenue ROW (figure 3a). The project area (tax lot 5201 and the NE Tillamook Avenue ROW) contains 2.23 acres of wetland.

**Table 5** Summary of wetland delineation results (from WD# 08-0188). Note: the wetland delineation study area is larger than the project area.

Wetland	Acres	Cowardin Class	HGM Class
A	3.899 +	PFO	Slope / Flats
В	0.302	PFO	Slope / Flats
С	0.088	PFO	Depressional
D	0.023	PFO	Depressional
E	0.004	PFO	Depressional
F	0.072	PFO	Depressional
G	0.004	PFO	Depressional
Н	0.491	PFO	Slope / Flats
Ι	0.013	PFO	Depressional
J	0.004	PFO	Depressional
K	0.001	PFO	Depressional
L	0.006	PFO	Depressional
М	0.002	PFO	Depressional
N	0.004	PFO	Depressional
D	0.004	PFO	Depressional
Р	0.005	PFO	Depressional
Q	0.046	PFO	Slope / Flats
Total	4.968 +		

#### Water Source, Duration, Frequency of Inundation or Saturation, and Depth

Figure 5 shows that within the wetland delineation study area the wetlands consist of 13 depressional wetlands (0.23 acres) and four slope/flat wetlands (4.738 acres). The depressional wetlands range in size from 27 to 10,698 square feet. These wetlands are located in shallow basins that receive runoff from adjacent uplands, direct precipitation, and experience a seasonally high water table. The slope/flat wetlands are supported by ephemeral stream flow, runoff from the adjacent uplands, and a seasonally high water table. The largest slope/flat wetland (wetland A) extends offsite to the west where it connects to Lake Lytle.

The proposed water sources for the two CWM sites will be surface-water inflow from adjacent streams on the east mitigation site and an existing ditch on the west mitigation site. The two wetland mitigation sites will also be excavated so that they intercept the water table. The created wetlands are designed to have the same hydrologic regime as

the adjacent wetlands. These wetlands will be wet during the rainy season, through the fall, winter and spring, and will dry up in mid to late summer. Direct precipitation is also expected to be an important water source: the average annual rainfall in the area is about 90 inches.

#### Necessary Water Rights

The water master for Tillamook County told the project consultant that a water right was not necessary for construction of the wetland mitigation site.

#### Water features within 500' of CWM site

The water features within 500 feet of the site include (figure 2):

- Lake Lytle 360 feet west of the site;
- wetlands associated with Lake Lytle;
- Steinhilber Creek, a first order stream located 190 feet south of the SE corner of the site;
- an unnamed, first-order stream located 300 feet north of the project site; and
- wetlands similar to those on the project site wetlands are located on the property to the south.

#### **Existing Plant Communities**

All of the wetlands on the site belong to the PFOC (palustrine forested seasonally flooded) Cowardin class (figure 6). The dominant plant species growing in the wetlands are red alder, Sitka spruce, skunk cabbage, lady fern, deer fern, slough sedge, and salmonberry. There are no exotic species within the interior of the project site. However there are non-native pasture grasses and Himalayan blackberry growing along the northern edge of the property.

#### **CWM Site Constraints**

The wetland mitigation site constraints are the possible incursion of weeds. Most of the site is covered with native coastal vegetation. There are, however, non-native weeds growing along the north edge of the site adjacent to the existing development. The condition of the mitigation sites will be assessed each year during the annual monitoring. If needed, the non-native plants will be removed.

#### Section 5: Functions and Values Assessment

RES completed a Hydrogeomorphic (HGM) Functional Assessment of the project site using the judgmental method developed by the Oregon Department of State Lands (Adamus and Field 2001). OAR 141-085-0685 (3) requires that the Oregon Rapid Wetland Assessment Protocol (ORWAP) be used to evaluate wetlands for projects with greater than 0.20 acres of wetland impact. The proposed project would result in 0.17 acres of wetland, therefore ORWAP was not used.

#### Water Storage and Delay - Functional Capacity Score 0.8

#### Existing Condition

The site rates high for water storage and delay because it is seasonally inundated and drains slowly after rain events.

#### Effect of Construction of the Subdivision

Water storage and delay is not an important function of the site's wetlands due to their low position in the watershed close to the Pacific Ocean. Runoff from the site discharges to Lake Lytle which drains into Crescent Lake and from there into the Pacific Ocean.

#### Effect of Compensatory Wetland Mitigation

Construction of the wetland mitigation site will maintain or improve water storage and delay because the amount of wetland creation exceeds the amount of wetland impact by 0.13 acres. In addition, the created wetlands will be constructed so that they have a rough surface that encourages water retention through the formation of puddles.

#### Sediment Stabilization and Phosphorous Retention - Functional Capacity Score 0.9

#### Existing Condition

The site scored high for sediment stabilization and phosphorous retention because of the soil texture (silt loam and silty clay loam), the high amount of vegetative ground cover, and undisturbed soils.

#### Effect of Construction of the Subdivision

The sediment and erosion control plan is designed to prevent sediment from leaving the site during construction (see block 5 of the permit application). After construction, the storm-water facilities will pre-treat storm water for pollutants and sediment before it discharges to the wetland. Therefore, the construction of the subdivision is not expected to alter this function.

#### Effect of Compensatory Wetland Mitigation

The construction of the wetland mitigation site will moderately improve stabilization and phosphorous retention due to a net gain in wetland area of 0.13 acres. The wetland mitigation will be modeled after the existing wetlands so they will have features that promote this function: abundant vegetative cover, shallow pools, and finely textured soil.

#### Nitrogen Removal – Functional Capacity Score 0.8

#### Existing Condition

The site's wetlands rated relatively high for nitrogen removal due to mature soil microbial processes, lack of soil disturbance and site microtopograhy.

#### Effect of Construction of the Subdivision

The construction of the mitigation site is not expected to have any effect on nitrogen removal because the amount of wetland impact (0.17 acres) is small in comparison to the amount of wetlands that will be preserved: 2.06 acres within the project area and approximately 16.7 acres (tax lot 5203) of wetland adjacent to Lake Lytle.

#### Effect of Compensatory Wetland Mitigation

Construction of the wetland mitigation site is expected to maintain or slightly improve nitrogen removal because the amount of wetland created exceeds the amount of wetland impact by 0.13 acres.

#### Primary Production - Functional Capacity Score 1.0

#### Existing Condition

The site scored high for primary production because of the well distributed and diverse plant forms on the site, the lack of soil disturbance, and a relatively undeveloped contributing watershed.

#### Effect of Construction of the Subdivision

The construction of the project will diminish this score slightly due to an increase in paved area in the adjoining upland.

#### Effect of Compensatory Wetland Mitigation

The implementation of the mitigation plan will contribute to primary production because the created wetlands will be planted with a diverse plant community modeled after the site's existing wetlands.

#### Invertebrate Habitat Support - Functional Capacity Score 1.0

#### Existing Condition

The score for invertebrate habitat support is high due to the presence of nearby surface water during most of the year, cover in the form of aquatic plants and woody debris, the interspersion of pools within the vegetated areas, the apparent high water quality, undisturbed soils, and adjacent wetlands.

#### Effect of Construction of the Subdivision

Construction of the subdivision will affect habitat support for invertebrates due to impacts to 0.17 acres of wetland. This is 8 percent of the of the total wetland acreage within the project area boundary. Including the approximately 16.7 acres of wetland in tax lot 5203, the impact is only 0.9 percent of the site's wetlands.

#### Effect of Compensatory Wetland Mitigation

The wetland mitigation site will compensate for the wetland impacts by the creation of 0.3 acres of wetland that will be planted with a diverse community of wetland vegetation.

#### Amphibian and Turtle Habitat - Functional Capacity Score 0.8

#### Existing Condition

The score of amphibian and turtle habitat is high due to the duration of shallow surface water, the presence of woody debris, the interspersion of pools in the vegetated areas, the presence of basking sites, apparent high water quality, the undisturbed state of the soils, and the accumulation of an organic layer.

#### Effect of Construction of the Subdivision

The implementation of the project will increase the area of paved and covered surfaces in the upland which will reduce this score.

#### Effect of Compensatory Wetland Mitigation

The wetland mitigation will offset the impacts due to creation of 0.3 acres of wetland. In addition, 2.06 acres of wetland within the project area and 16.7 acres of existing wetland in tax lot 5203 will remain undeveloped.

#### Breeding Waterbird Support - Functional Capacity Score 0.6

#### Existing Condition

Site factors that are disincentives to waterbirds include the lack of many acres of nearby wetland and large pools of water. Factors that favor waterbirds are the presence native vegetation, undisturbed soils, and apparent high water quality.

#### Effect of Construction of the Subdivision

Implementation of the subdivision will increase human visitation to the site which would slightly lower the score.

#### Effect of Compensatory Wetland Mitigation

It is not expected that the wetland mitigation would improve this function as the wetland mitigation does not involve the creation of pools or other habitat features that favor breeding waterbirds.

#### Winter and Migratory Waterbird Support - Functional Capacity Score 0.7

#### Existing Condition

The factors that support winter and migratory waterbirds are water quality, lack of disturbed soils, and the presence of native vegetation. Factors that are a disincentive to water birds are the lack of extensive surface water and large areas of inundation.

#### Effect of Construction of the Subdivision

Construction of the subdivision will increase human visitation to the site which may discourage waterbird use.

#### Effect of Compensatory Wetland Mitigation

The construction of the mitigation site will not alter the site's capacity to support waterbirds. The wetland mitigation does not involve the creation of large inundated areas that favor waterbirds.

#### Songbird Habitat Support -Functional Capacity Score 1.0

#### Existing Conditions

The site rates high for songbird habitat support because it contains nearby year-round surface water, native vegetation, the under cover shrub layer is extensive, tree cover and surrounding woodland.

#### Effect of Construction of the Subdivision

Construction of the subdivision will slightly decrease this function as 14.81 acres of woodland will be converted to suburban land use.

#### Effect of Compensatory Wetland Mitigation

The construction of the wetland mitigation site will compensate for impacts to forested wetland through the creation of 0.3 acres of forested wetland.

#### Support of Characteristic Vegetation - Functional Capacity Score 1.0

#### Existing Conditions

The site's wetlands rate high for support of characteristic native vegetation due to the abundant and diverse native vegetation.

#### Effect of Construction of the Subdivision

Construction of the subdivision will reduce this function because 14.81 acres of woodland will be converted to residential use. However, 2.03 acres of wetland in the project area and 16.7 acres of wetland on tax lot 5203 will remain undeveloped.

#### Effect of Compensatory Wetland Mitigation

The compensatory wetland mitigation site will contribute to this function as the CWM sites will be planted with native species modeled after the existing wetland.

Function	Functional Capacity Score	Gains or Losses	
Water Storage and Delay	0.8	Maintained	
Sediment Stabilization and	0.9	Maintained	
Phosphorous Retention			
Nitrogen Removal	0.8	Maintained	
Primary Production	1.0	Maintained	

# **Table 6** Summary of HGM Judgmental Method Functional Capacity Scores for the existing wetlands and expected gains or losses.

Function	Functional Capacity Score	Gains or Losses
Invertebrate Habitat Support	1.0	Maintained
Amphibian and Turtle Habitat	0.8	Impacted by increase in amount of paved surfaces
Breeding Waterbird Support	0.5	Maintained, not a primary function of existing site
Winter and Migratory Waterbird Support	0.7	Maintained, not a primary function of existing site
Songbird Habitat Support	1.0	Decrease due to development of residential lots and roads
Support of Characteristic Vegetation	1.0	Decrease due to the conversion of woodland to residential use

#### Existing Functions at the Impact Site Expected to be Adversely Affected

Existing functions impacted are those related to the conversion of adjacent upland from existing forest to residential subdivision: habitat for song birds, amphibians and turtles. Creation of the wetland mitigation will offset some of these impacts. The preservation of the large wetland to the west will also help maintain these functions.

#### Net Gain or Loss of Specific Functions as a Result of CWM

Due to the conversion of 14.81 acres of upland forest to residential subdivision there will be a loss to those functions that require the support of upland habitat. These include song bird habitat, characteristic vegetation, and amphibian and turtle habitat.

# Acres of the CWM Wetland Proposed for Impact Relative to the Total Area of the Wetland

The proposed project will impact 8 percent of the wetlands within the project area. Including the approximately 16.7 acres of wetland on tax lot 5203, the wetland impact is 0.9 percent of the site's wetlands.

#### Section 6: Construction Plans

# Site plan with project boundaries, existing wetlands, restoration, creation and enhancement areas

Figure 4 shows the site layout. Figures 5 and 6 show the HGM and Cowardin classifications of the proposed wetland impacts and creation areas.

#### Grading plan with existing and proposed contours and cross section locations

The grading plan (figures 8 and 9) shows the existing and proposed contours of the wetland mitigation, and figure 9 shows cross sections of the mitigation sites.

#### Description of Construction Methods Including Access and Equipment

Access to the site will be from the existing streets (Tillamook Avenue, Francis Street and Necarney Street). The wetland mitigation site will be constructed with a back hoe or excavator. Achieving the correct grade and soil preparation is essential to the success of the wetland mitigation site. A qualified wetland professional, therefore, will need to stake the wetland elevations and be onsite during the excavation to monitor the excavation depth.

During construction, the contractor will stockpile soil removed from wetlands proposed for impact. This soil will then be placed in the wetland creation area after excavation. The contractor will also stockpile woody debris removed from the construction site for distribution in the wetland mitigation areas. The woody debris will be distributed under the direction of the wetland professional.

#### **Construction Schedule**

The CWM will be constructed during the summer when construction of the development begins. Planting will be done in the fall following construction of the mitigation site.

#### Schematic of any water control structures

No water-control structures are proposed for the project.

#### **Cross sections**

Cross sections of the mitigation site are shown on figures 10 and 11.

# Planting plan with species, size, number, spacing and installation methods, implementation schedule and construction sequence

Tables 6 and 7 contain the planting plans for the west and east wetland mitigation sites. The vegetation will be installed in the fall after the mitigation sites have been constructed. Figures 10 and 11 are planting plan schematics for the wetland mitigation areas.

Size	Species	Density/rate	Plant type/seed	Quantity
7,193 sq. ft.	Alnus rubra (red alder) FAC	15' on center	1 gallon	8
	<i>Picea sitchensis</i> (Sitka spruce) FAC	20' on center	1 gallon	3
	<i>Athyrium filix-femina</i> (lady fern) FAC	3' on center	lgallon	10
	<i>Tolmiea menziesii</i> (youth on age) FAC	3' on center	bare-root seedling/plug	100
	<i>Lysichiton americanum</i> (skunk cabbage) OBL	6' on center	bulb	15
	Carex obnupta (slough sedge)	3' on center	plug	120

Table 7	Planting plan	for the west wetland	nd mitigation area.
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Size	Species	Density/rate	Plant type/seed	Quantity
	OBL			
	<i>Oenanthe sarmentosa</i> (water parsley) OBL	3' on center	bare-root seedling/1 gal.	8
	Rubus spectabilis (salmon berry) FAC+	8' on center	1 gallon	5
	<i>Salix hookerana (</i> Hooker's willow)	8' on center	vegetative cutting	4
Total	,			273

 Table 8 Planting plan for the east mitigation area.

Size	Species	Density/rate	Plant type/seed	Quantity
6,037 sq. ft.	Alnus rubra (red alder) FAC	15' on center	1 gallon	4
	<i>Picea sitchensis</i> (Sitka spruce) FAC	20' on center	1 gallon	5
	<i>Athyrium filix-femina</i> (lady fern) FAC	3' on center	1gallon	20
	<i>Tolmiea menziesii</i> (youth on age) FAC	2' on center	bare-root seedling	80
	<i>Lysichiton americanum</i> (skunk cabbage) OBL	3' on center	bulb	20
	Carex obnupta (slough sedge) OBL	3' on center	plug	100
	<i>Oenanthe sarmentosa</i> (water parsley) OBL	3' on center	bare-root seedling	7
	<i>Rubus spectabilis</i> (salmon berry) FAC+	8' on center	1 gallon	7
	<i>Salix hookerana (</i> Hooker's willow)	8' on center	vegetative cutting	5
Total				

#### Section 7: Monitoring Plan

#### Performance Standards

The compensatory wetland mitigation criteria will have been met if 0.26 acres of upland are successfully converted to wetland. This will provide of 0.17 mitigation credits to offset 0.17 acres of wetland impact.

The following are the performance criteria for the CWM.

1. The cover of native herbaceous species is at least 60%.

- 2. The cover of invasive herbaceous species is no more than 10%. After the site has matured to the stage when desirable canopy species reach 50% cover, the cover of invasive understory species may increase but may not exceed 30%.
- 3. The cover of invasive shrub or tree species is no more than 10%.
- 4. The DSL's *Routine Performance Standards for Vegetation* recommends that bare substrate represent no more than 20% cover. The existing wetlands on the site, which are in good condition and have native cover, do not meet this standard. The bare substrate as inferred from the wetland delineation data sheets ranges from 0 to 90%. The high amount of bare substrate is likely due to the heavy shade canopy. The consultant cannot predict if this will be a problem for the CWM after grading and adjacent tree removal to clear space for the subdivision. Therefore, the consultant recommends that the Agencies allow the permit holder to re-negotiate this criterion if it can be shown that the bare substrate in excess of 20% is due to shade.
- 5. By Year 3 and thereafter, there are at least 6 different native species. To qualify, a species must have at least 5% average cover in the habitat class, and occur in at least 10% of the plots sampled.
- 6. Prevalence Index total for all strata is <3.0.
- 7. The density of woody vegetation is at least 1,600 native plants (shrubs) and/or stems (trees) per acre (native species volunteering on the site may be included, dead plants/stems do not count).
- 8. Establishment of wetland hydrology, which will be determined by measuring the depth to soil saturation in the spring and examining soils for signs of increased wetness, such as live, oxidized root channels, and by checking the depth to saturation. The U.S. Army Corps of Engineers (Corps) has established the criterion for wetland hydrology as saturation to within a foot of the land surface for 5% or more of the growing season (Wetland Delineation Manual, 1987).
- 9. As-built plans are submitted within 90 days of final grading.

#### Section 7: Monitoring Plan

#### Schedule and Timetable

The work on the mitigation sites will be completed during the same summer that work on the development begins. Within 90 days of the completion of grading of the CWM, the applicant will submit an as-built grading plan to the agencies. The as-built plan will include spot-survey elevations to confirm that the project was graded to design. The site will be monitored annually in June or July for five years. The first year's monitoring will be completed the year following construction of the CWM. Annual monitoring reports will be submitted to the agencies.

# Methods

Vegetation monitoring will follow the methods described in DSL's *Routine Monitoring Guidance for Vegetation* (2009). Success of the site will be judge by comparing the monitoring plot data to the performance criteria.

Other monitoring components will include:

- Regularly photographing the site from fixed photo points to document site process.
- Checking for damage to plants (herbivory, girdling, fungus, disease, leaf dieback, mowing or mechanical damage, flood/storm damage, and poor planting technique).

The consultant will determine whether the CWM meets the wetland hydrology criterion of saturation to within 12 inches of the land surface for at least 5% of the growing season (Environment Laboratory 1987). The consultant will look for signs of inundation by digging soil pits to test for soil saturation, and by noting any evidence of inundation. The consultant will also look for signs of developing hydric soils.

# **Contingencies**

If the wetland creation area fails to meet the vegetation, hydrology, and/or soils requirements for jurisdictional wetlands, the applicant will take corrective actions under the direction of a qualified wetland professional. Areas may require weed removal and replanting, and wetland depths may require adjustment through additional excavation.

# Section 8: Protection and Security Instruments

# **Protection Instrument Draft Required Prior to Issuance**

Appendix B contains a draft deed restriction.

# **Description of Proposed Final Security Instrument**

The DSL's current direction for the calculation of a wetland mitigation performance bond is to assume that the cost of wetland mitigation is \$83,000 per acre. The proposed wetland impact is 0.17 acres; therefore the bond amount would be \$14,110. The DSL has the discretion of waiving the performance bond for projects that have less than 0.20 acres of wetland impact.

# Long Term Maintenance Plan

The homeowners association will assume long-term ownership of the CWM. The longterm maintenance actions are expected to be minimal due to the small size of the mitigation site, the lack of non-native species in the area, and the observed success of other CWM sites in Rockaway Beach. Expected maintenance activities would include weed control, maintenance of fences and signs, vandalism repair, and trash removal. Funding will be provided for maintenance of the CWM through the homeowners association fees.

## Section 9: References

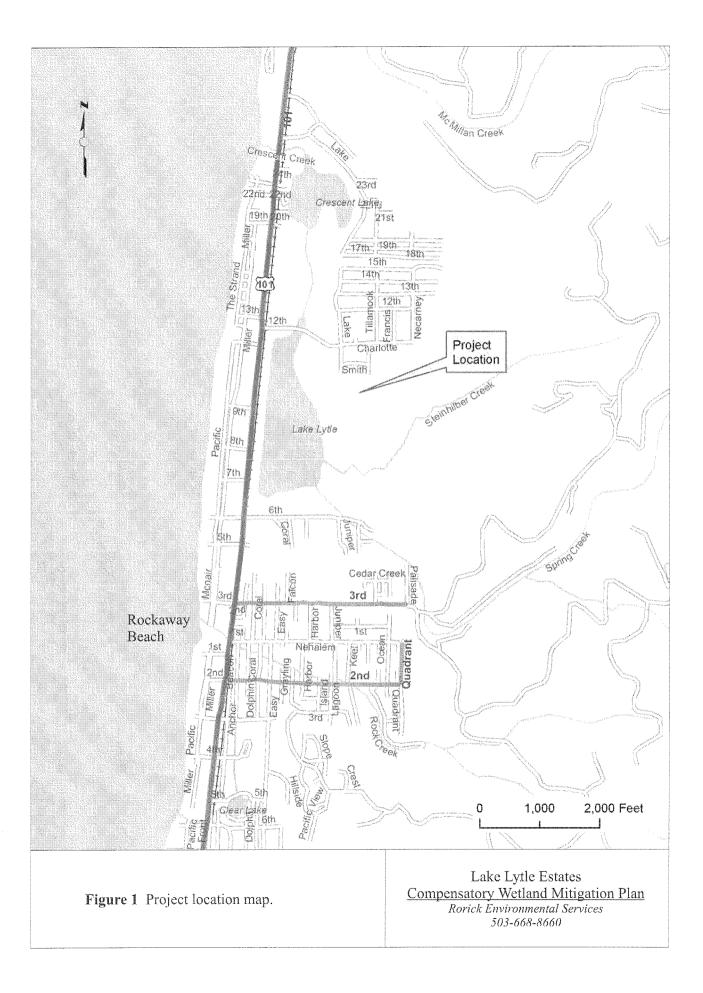
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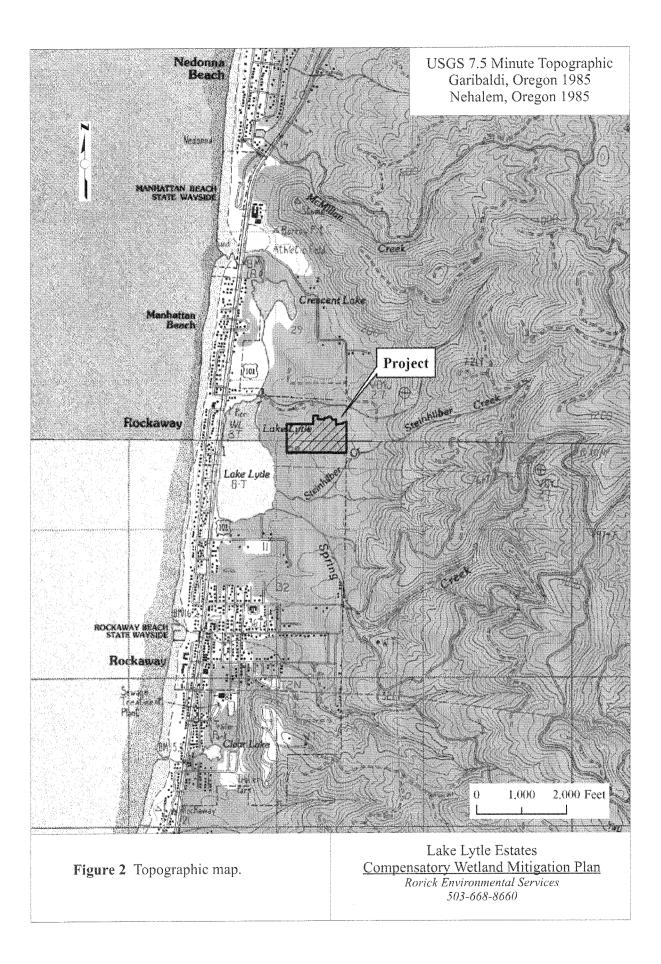
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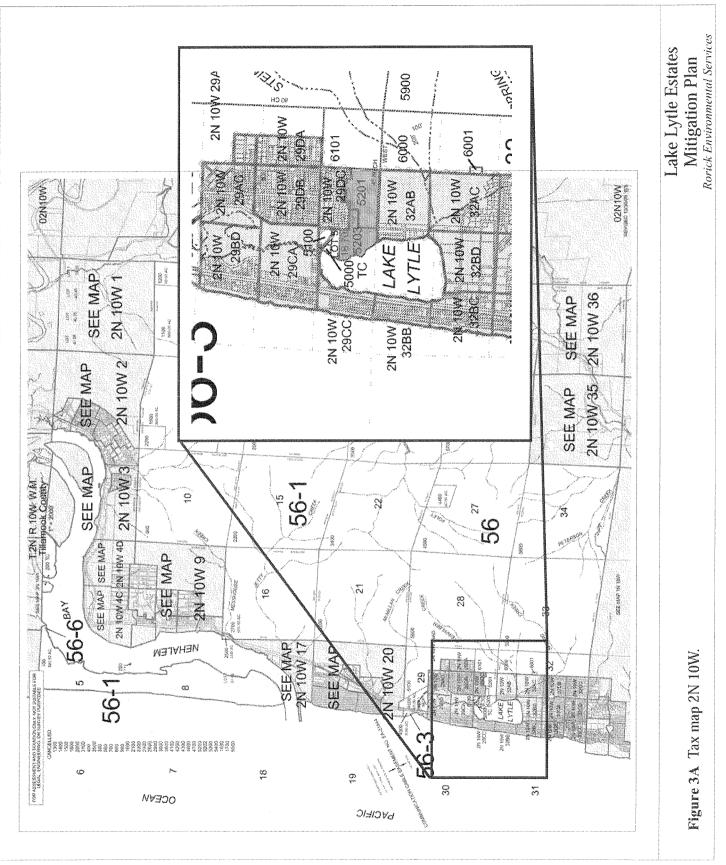
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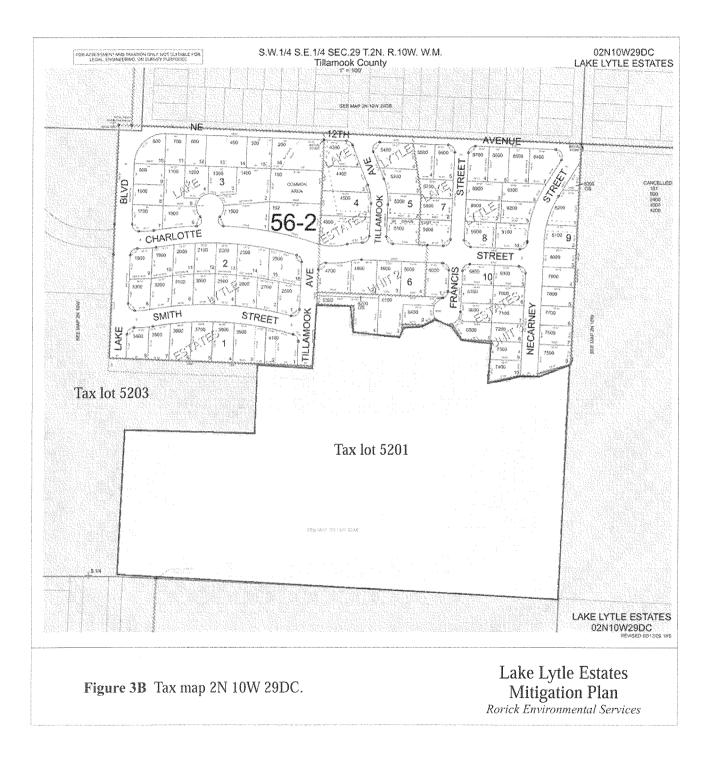
United States Fish and Wildlife Service, 1995, National Wetland Inventory, Tillamook Head Quadrangle, available on line at: http://www.nwi.fws.gov/

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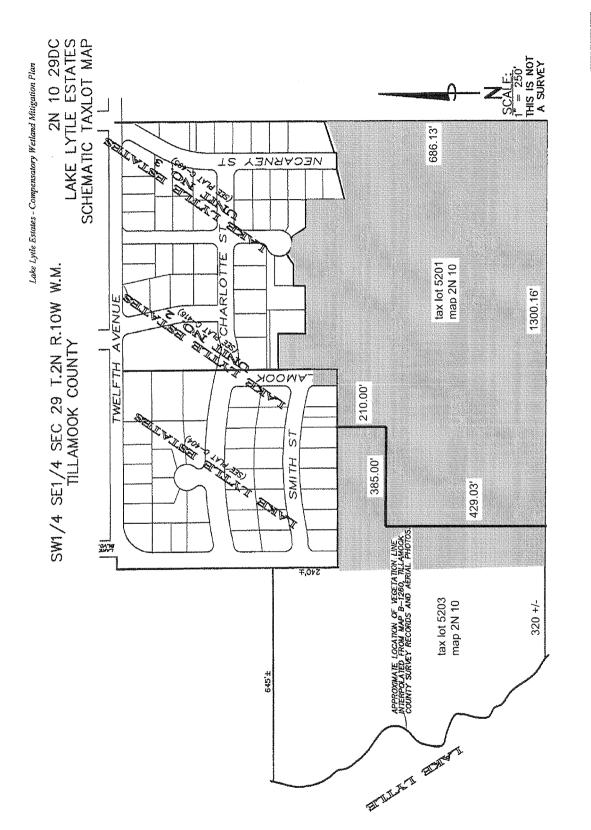
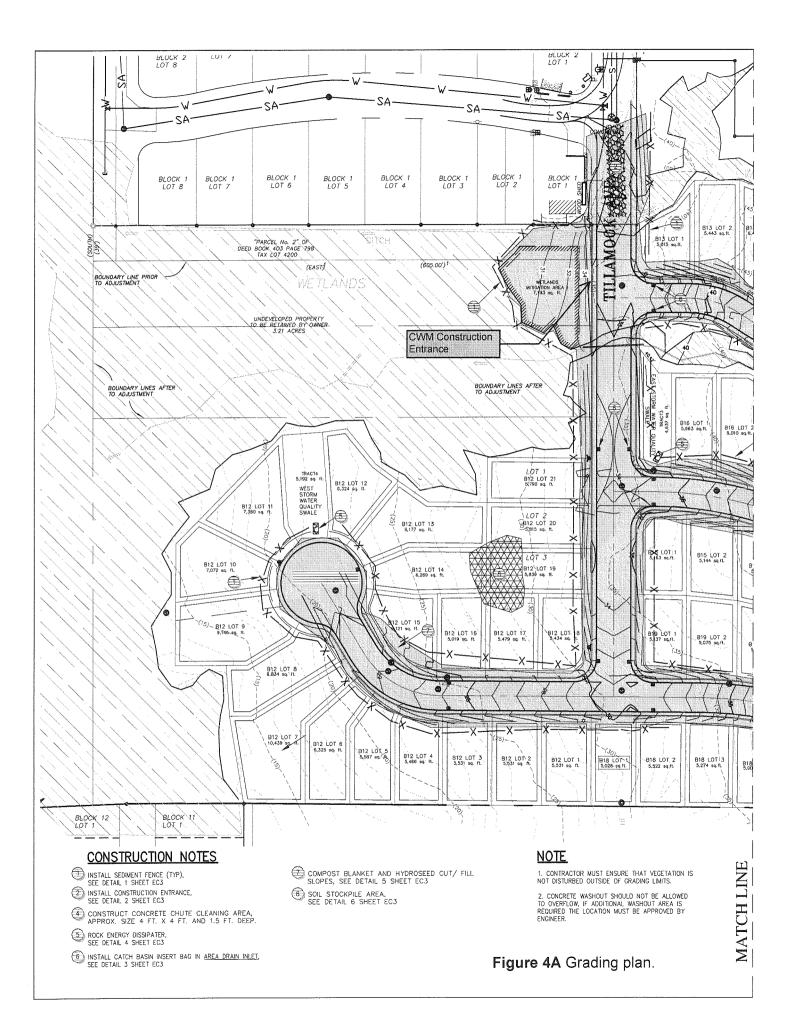
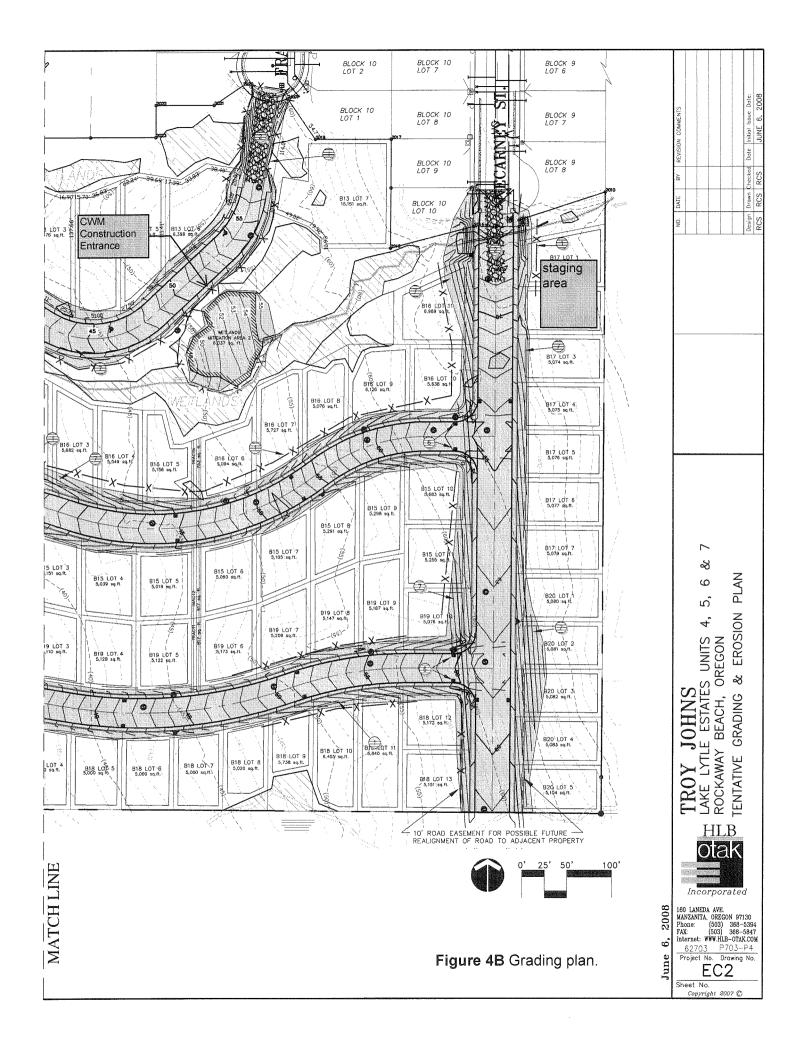


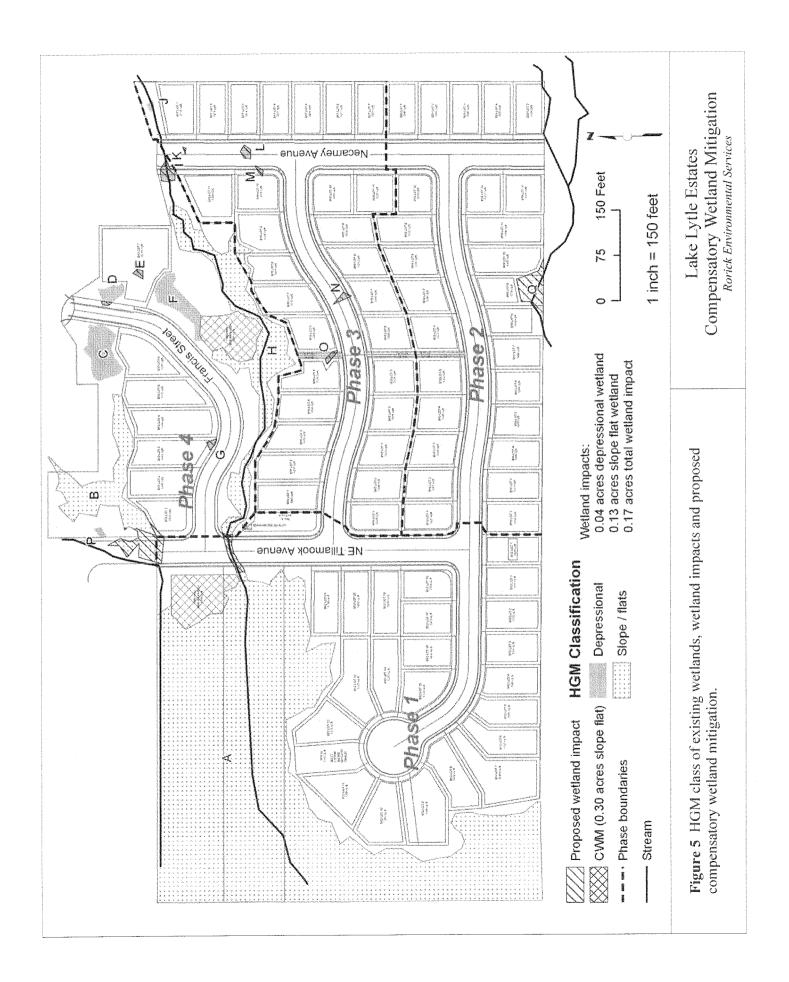


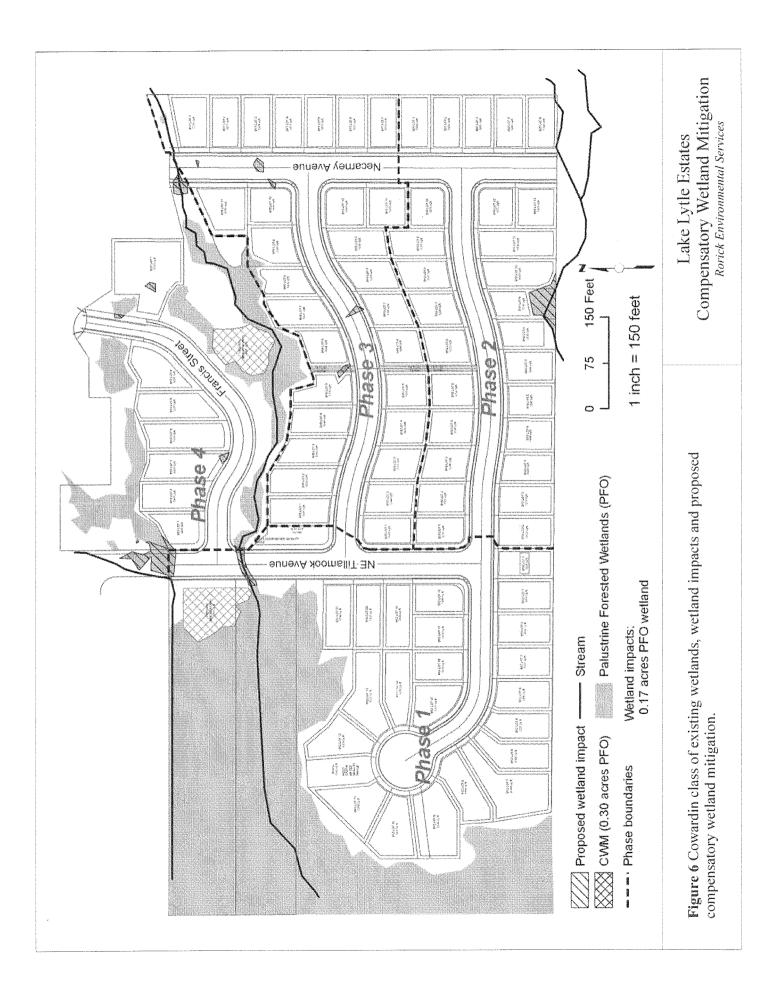
Figure 3C Updated tax map prepared by HLB - Otak.

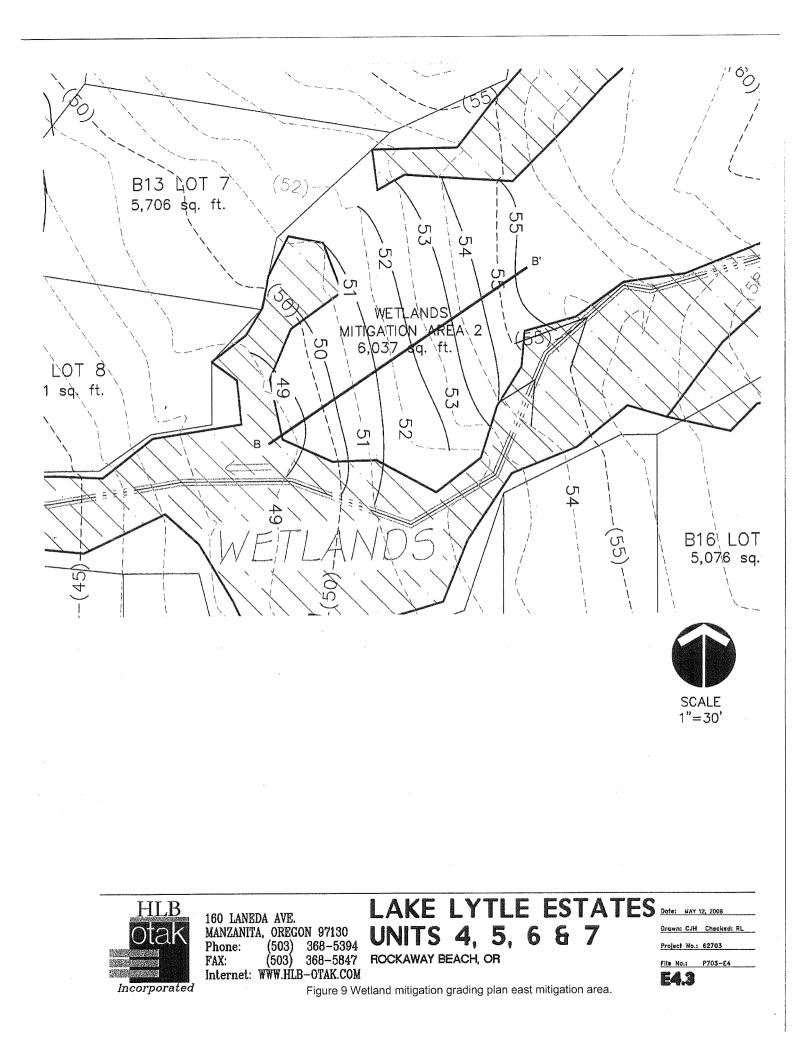
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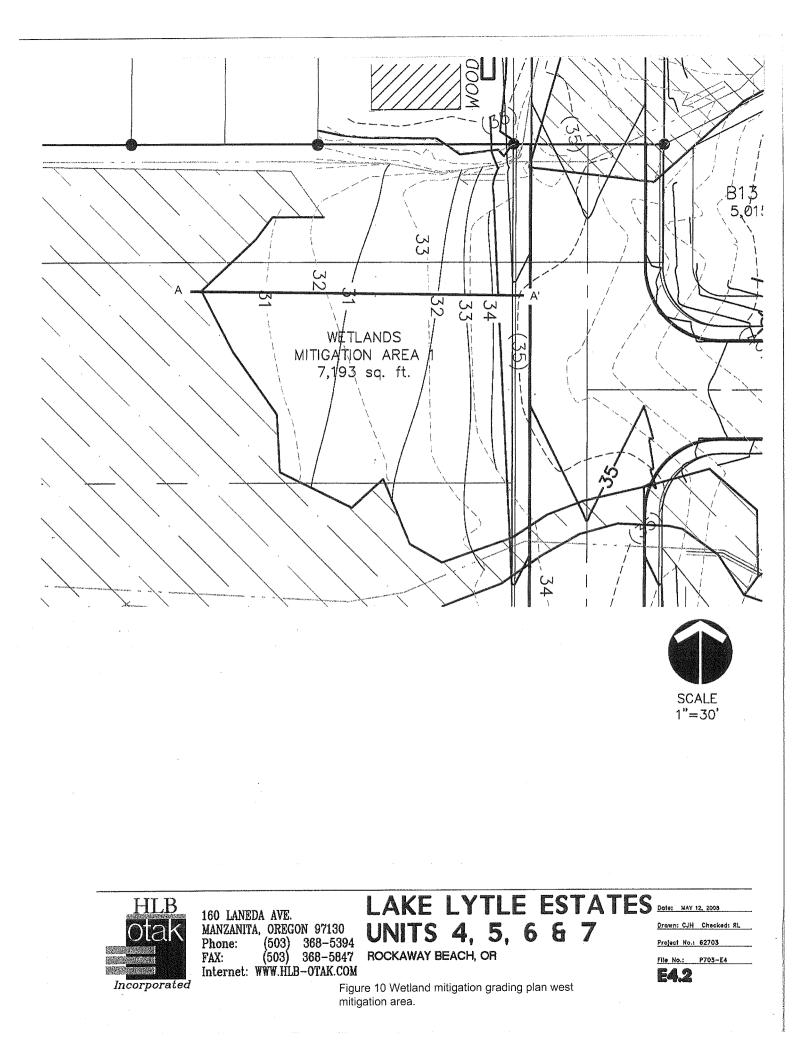


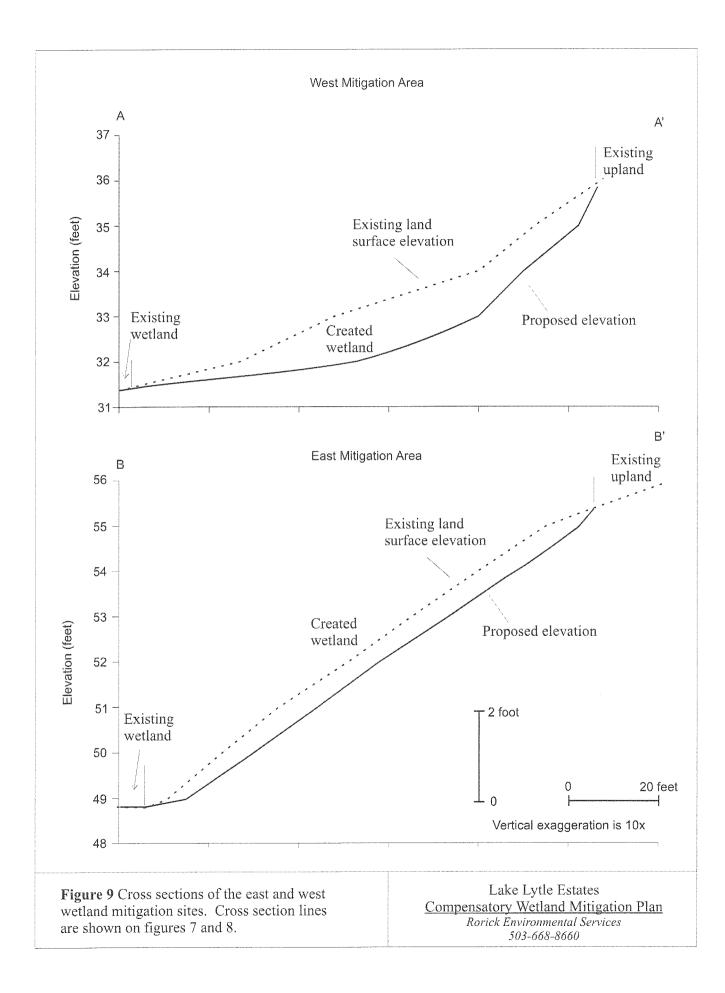


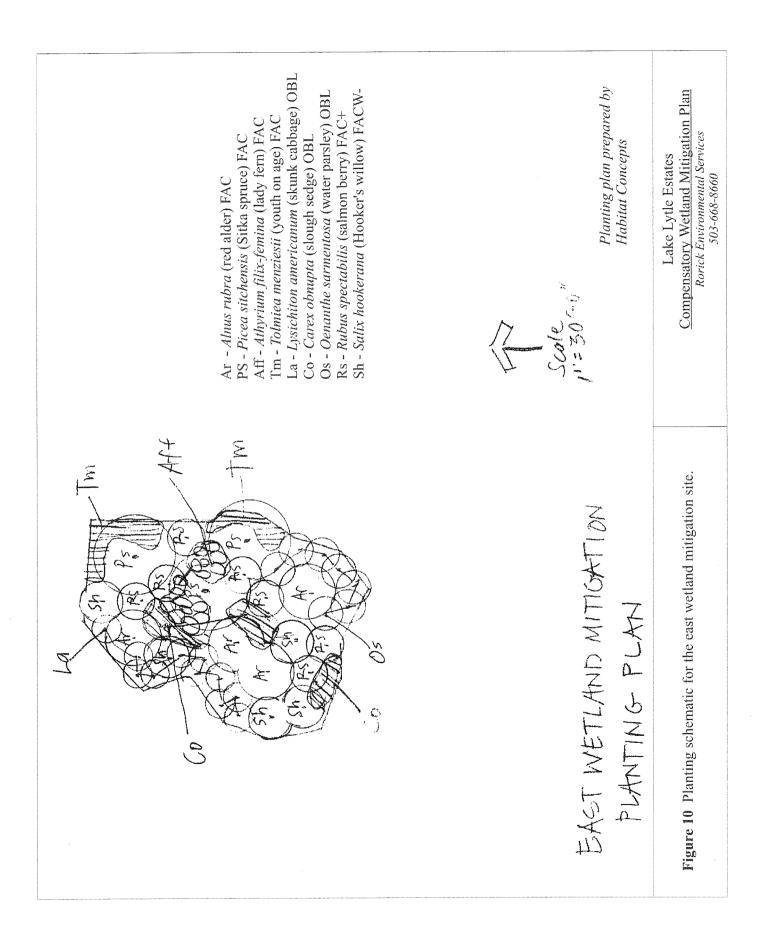


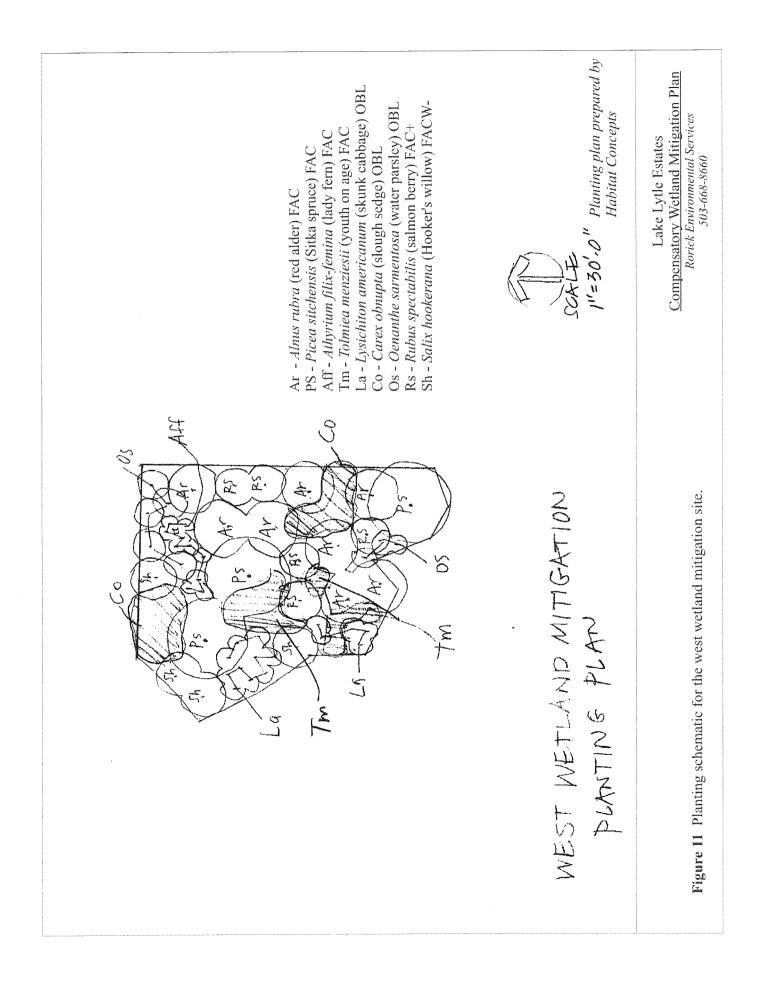












# Attachment B Wetland Delineation Concurrence Letter Draft Deed Restriction

# Lake Lytle Estates

Rockaway Beach, Oregon Tillamook County

Prepared for:

Troy Johns 14801 NE 14th Circle Vancouver, WA 98684

Submitted by:

Nancy Rorick Rorick Environmental Services 37552 SE Rachael Drive Sandy, OR 97055 503-449-4372 nancy@rorickenvironmental.com

May 2010





Department of State Lands

775 Summer Street NE, Suite 100 Salem, OR 97301-1279 (503) 378-3805 FAX (503) 378-4844 www.oregonstatelands.us.

June 10, 2008

Troy Johns 12432 NE 20<sup>th</sup> Street Vancouver, WA 98684 State Land Board

Theodore R. Kulongoski Governor

> Bill Bradburn Secretary of State

Re: Wetland Delineation Report for Lake Lytle Estates residential subdivision, off NE 12<sup>--</sup> Street, Rockaway Beach, Tillamook County; T 2N R 10W S 29DC Tax Lot 4200; T 2N R 10W Tax Lot 5201; Rockaway Beach Local Wetlands Inventory wetlands UNK-1, R-UNU-1 & Lytle; WD #08-0188

Dear Mr. Johns:

The Department of State Lands has reviewed the wetland delineation report prepared by Rorick Environmental Services for the site referenced above. Based upon the information presented in the report and additional information submitted upon request. we concur with the wetland and waterway boundaries as mapped in Figure 6 (revised June 10, 2008) of the report. Please replace all copies of the preliminary wetland map with this final Department-approved map. Within the study area, 17 wetlands (totaling approximately 4.968 acres) associated with Lake Lytle and contributing drainages were identified. The wetlands are subject to the permit requirements of the state Removal-Fill Law. The ephemeral streams that drain to Lake Lytle are assumed to be regulated by the state since the report did not provide the necessary information to assess if they meet the definition of an intermittent stream, per OAR 141-085- 0010(107). Additional information could be submitted if reconsideration on the regulatory status of the streams is desired. A state permit is required for cumulative fill or annual excavation of 50 cubic vards or more in the wetlands or below the ordinary high water line (OHWL) of a waterway (or the 2 year recurrence interval flood elevation if OHWL cannot be determined).

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter, unless new information necessitates a revision. Circumstances under which the Department may change a determination and procedures for renewal of an expired determination are found in OAR 141-090-0045 (available on our web site or upon request). The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within 60 calendar days of the date of this letter.

Thank you for having the site evaluated. Please phone me at 503-986-5321 if you have any questions.

Sincerely,

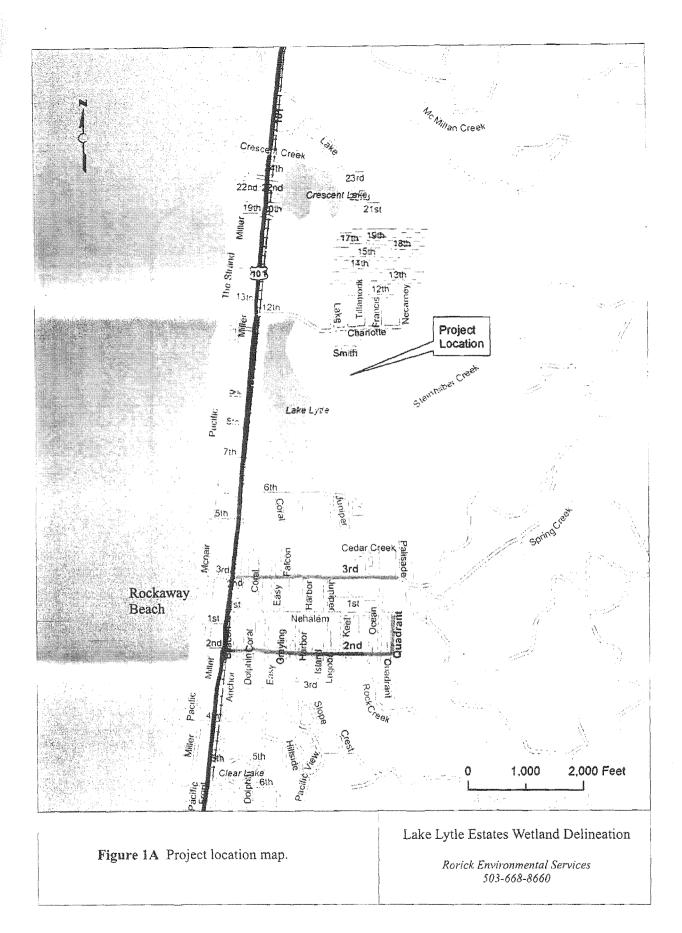
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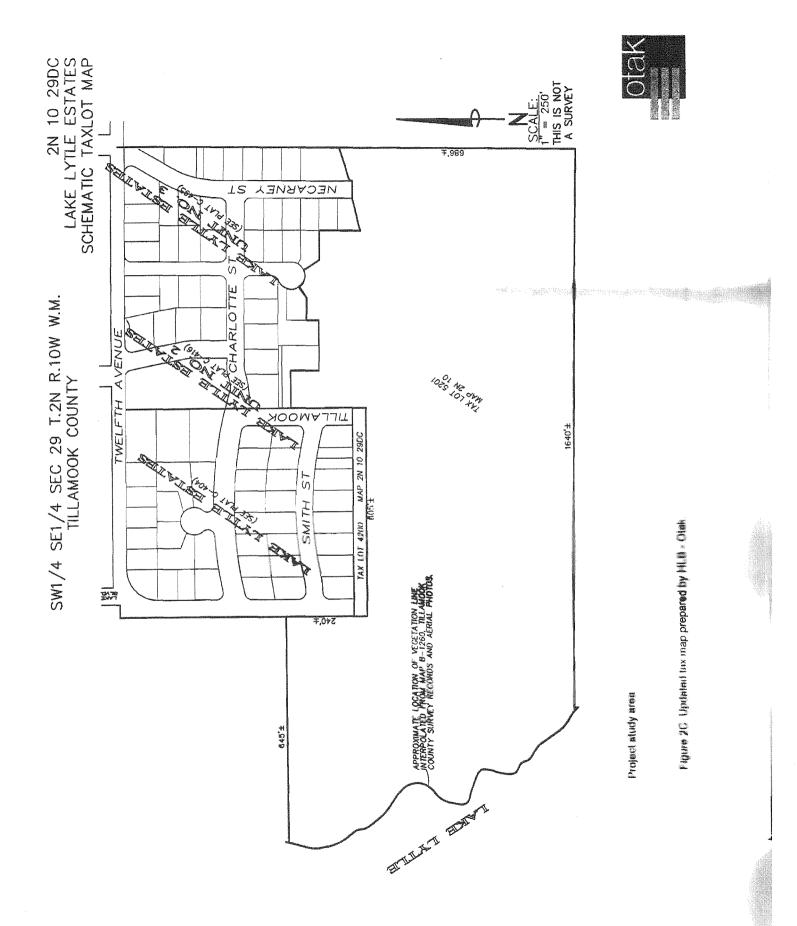
Anna Buckley Wetland Specialist

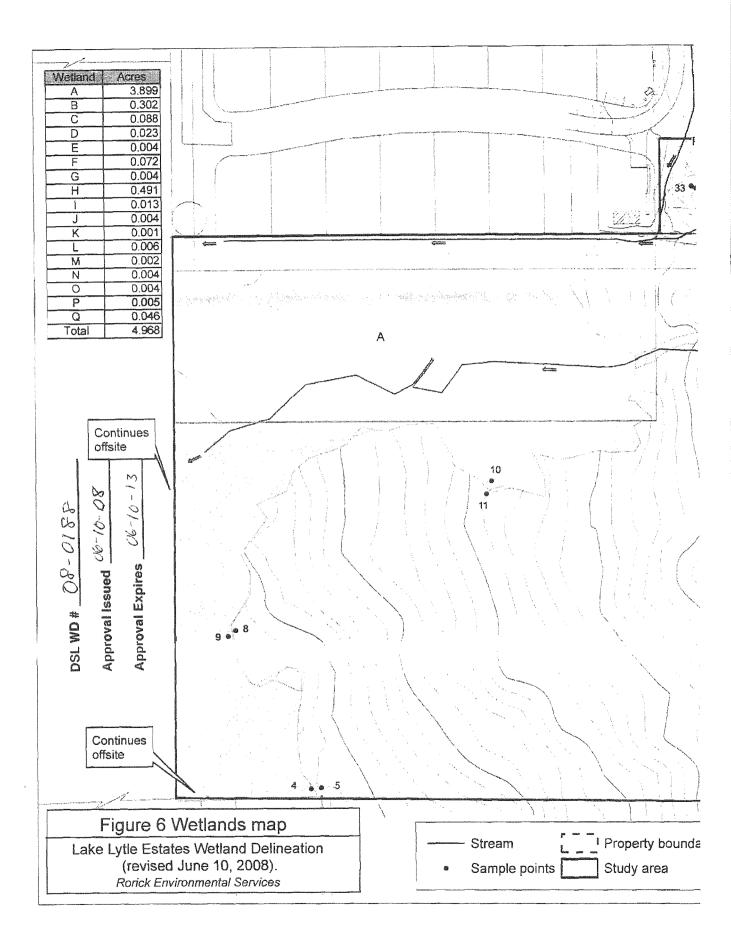
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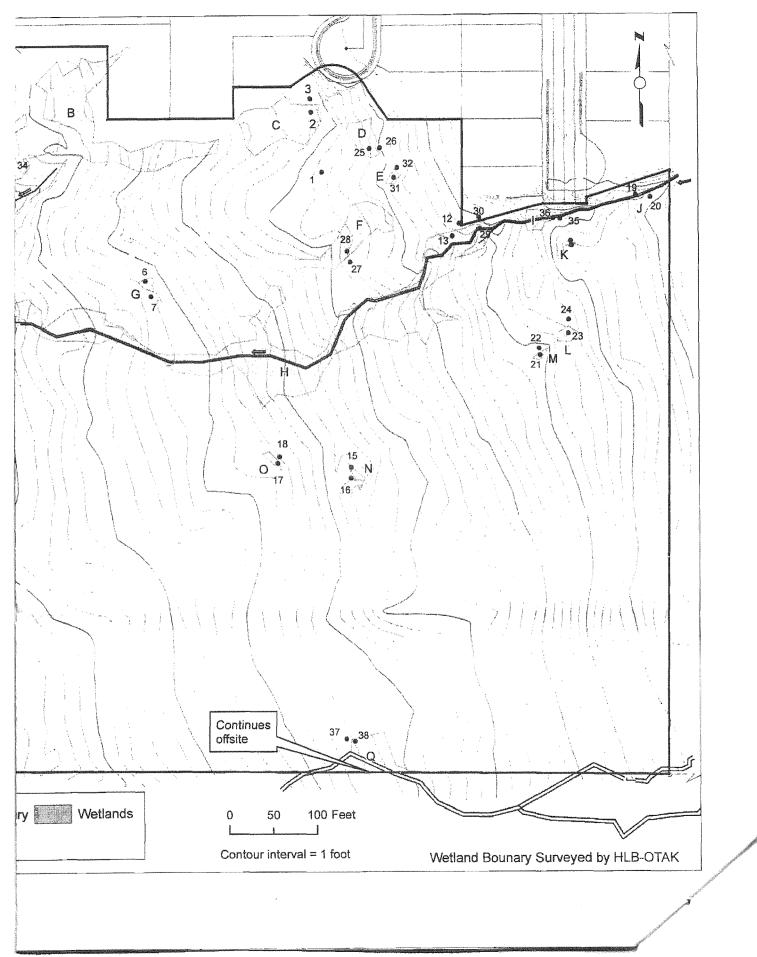
Approved by Janet C. Morlan, PWS Wetlands Program Manager

Nancy Rorick, Rorick Environmental Services CC: Sabrina Norberg, Rockaway Beach Planning Department Kathryn Harris, Corps of Engineers Joy Vaughan, DSL









# DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE Lake Lytle Estates

THIS DECLARATION made this \_\_\_\_\_ day of \_\_\_\_\_, 20 by Troy Johns (*applicant name*), ("Declarant").

## RECITALS

1. WHEREAS, Declarant is the owner of the real property described in Exhibit "A" attached hereto and by this reference incorporated herein as the "Property", and desires to {create restore, *enhance or preserve*} thereon wetlands to be maintained in accordance with the Permit Number approved by the Oregon Department of State Lands ("Department");

2. WHEREAS, Declarant desires to provide for the preservation and enhancement of the wetland values of the Property and for the maintenance and management of the Property and improvements thereon, and to this end desires to subject the Property to the covenants, restrictions, easements and other encumbrances hereinafter set forth, each and all of which is and are for the benefit of the Property.

NOW, THEREFORE, the Declarant declares that the Property shall be held, transferred, sold, conveyed and occupied subject to the covenants, restrictions, easements and other encumbrances hereinafter set forth in this Declaration. These restrictions cannot be released unless authorized by the Department.

# ARTICLE 1 DEFINITIONS

1.1 "Declaration" shall mean the covenants, restrictions, and all other provisions set forth in the Declaration of Covenants and Restrictions.

1.2 "Declarant" shall mean and refer to \_\_\_\_\_\_ (applicant name), its successors or assigns.

#### Draft

1.3 "Removal fill permit" shall mean the final document approved by the Department that formally establishes the wetland *mitigation and/or preservation area* and stipulates the terms and conditions of its construction, operation and long-term management.

1.4 "Property" shall mean and refer to all real property subject to this Declaration, as more particularly set forth in Exhibit "A".(an exhibit of conservation area must be attached}

## ARTICLE 2

#### PROPERTY SUBJECT TO THIS DECLARATION

The real property which is and shall be held, transferred, sold, conveyed and occupied subject to this Declaration is located in \_\_\_\_\_County, Oregon and is more particularly described in Exhibit "A". (\*Exhibit "A" should be a survey and legal description.)

#### **ARTICLE 3**

## GENERAL PLAN OF DEVELOPMENT

Declarant currently manages the site for the purpose of wetland mitigation or preservation. Current management is in accordance with Permit Number \_\_\_\_\_.

# ARTICLE 4

# USE RESTRICTIONS AND MANAGEMENT RESPONSIBILITIES

The Property shall be used and managed for wetland mitigation or preservation purposes in accordance with Permit Number \_\_\_\_\_\_. Declarant and all users of the Property are subject to any and all easements, covenants and restrictions of record affecting the Property.

- \* (Insert Covenants here. List, by number, all of the reserved rights and things not allowed in the conservation area. See following examples )
- There shall be no removal, destruction, cutting, trimming, mowing, alteration or spraying with biocides of desirable native vegetation in the Compensatory Wetland Mitigation Site as shown on Exhibit A, nor any disturbance or change in the natural habitat of the Compensatory Wetland Mitigation Site. This restriction does not apply to activities related to the construction and maintenance of the Compensatory Wetland Mitigation Site.
- 2. There shall be no agricultural, commercial, or industrial activity undertaken or allowed in the Property; nor shall any right of passage across or upon the Property be allowed or granted if that right of passage is used in conjunction with agricultural, commercial or industrial activity.
- 3. No domestic animals shall be allowed on the Property.

- 4. There shall be no filling, excavating, dredging, mining or drilling; no removal of topsoil, sand, gravel, rock minerals or other materials, nor any dumping of ashes, trash, garbage, or of any other material, and no changing of the topography of the land of the Property in any manner.
- 5. There shall be no construction or placing of buildings, mobile homes, advertising signs, billboards, or other advertising material, or other structures on the Property.

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# ARTICLE 5

# **RESOLUTION OF DOCUMENT CONFLICTS**

In the event of any conflict between this Declaration and Permit Number \_\_\_\_\_\_, the permit shall control.

IN WITNESS WHEREOF, the undersigned being Declarant herein, has executed

this instrument this \_\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Your firms name \_\_\_\_\_County, Oregon

By:\_\_\_\_\_

Title: \_\_\_\_\_

STATE OF OREGON

County of\_\_\_\_\_

)

)

ss:

This instrument was acknowledged before me on \_\_\_\_\_(*date*) by

\_\_\_\_\_(name of person) as \_\_\_\_\_\_(*title*) of Your firms name of

County, Oregon.

Signature of Notarial Officer

My Commission Expires: \_\_\_\_\_\_

Document1

37552 SE Rachel Drive Sandy, OR 97055 503-449-4372 nancy@rorickenvironmental.com

May 21, 2010

Anita Huffman Oregon Department of State Lands 775 Summer Street, Suite 100 Salem, OR 97301-1279

**Re:** Lake Lytle Estates Removal-Fill Application DSL # 41607 and Corps # 2009-357

Dear Ms. Huffman:

Enclosed is the re-submittal of the Lake Lytle Estates Removal Fill Application. This resubmittal addresses DSL concerns form the July 24, 2009 completeness review letter.

- The purpose and need statement has been expanded to identify the target market for the housing development and addresses concerns regarding the marketability of the houses under current economic conditions.
- The road layout has been altered so that there is only one access point to the property to the south.
- The wetland impact on lot 5, figure EC-2, Wetland Q was rechecked in the field and corrected by the wetland consultant and project engineer.
- Francis Street has been redrawn as required by the City.
- The property west of the project site (tax lot 5203) will be made available for donation. So far no municipality or conservation group has expressed an interest in acquiring the property.

The re-submittal exceeded the 120 deadline given to us in the completeness review letter. I have attached an email from Joy Vaughan extending that deadline. Therefore, no permit fees are required.

Please let me know if you have any questions regarding the project.

Sincerely,

A 61

Nancy L. Rorick Hydrogeologist, RG, CWRE

CC: Troy Johns Dominic Yballe, U.S. Army Corps of Engineers Jay Sennewald, City of Rockaway Beach Collin Stelzig, HLB-Otak Subject: RE: Lake Lytle Estates update From: "VAUGHAN Joy" <joy.vaughan@state.or.us> Date: Tue, 17 Nov 2009 07:35:04 -0800 To: "Nancy Rorick" <nancy@rorickenvironmental.com> CC: "VAUGHAN Joy" <joy.vaughan@state.or.us>, "James L Sellers" <jsellers@sellerslawoffice.com>, "WARNER-DICKASON Lori" <lori.warner-dickason@state.or.us>, "Troy Johns" <troyajohns@gmail.com>

Hi Nancy,

Thanks for your email.

The permit application for Mr. Johns will remain active. Let me know if you'd like to set up a meeting in Rockaway to discuss the alternative road alignment.

Enjoy your week.

Joy

----Original Message----From: Nancy Rorick [mailto:nancy@rorickenvironmental.com] Sent: Monday, November 16, 2009 4:24 PM To: VAUGHAN Joy Cc: WARNER-DICKASON Lori; Troy Johns; James L Sellers Subject: Lake Lytle Estates update

Dear Joy,

We have completed the revised draft purpose and need statement. However, Troy has been delayed in completing his review of the document due to the flu. Once he completes his review, I will send it on to you. We are also still working on the alternative stub-out locations. Troy has spoken to the City about setting up a meeting in the near future to discuss the stub-out locations.

Fiday is our 120-day deadline to re-submit the permit application. In your September 18th email to Jim Sellers, you mentioned that the project can remain active past the deadline if the applicant requests. I would like to request on Troy's behalf that the project remain active. Once Troy has recovered from the flu, we will be able to get back to with a date on when we plan to re-submit the application.

Thank you, Nancy

Nancy Rorick, RG, CWRE Rorick Environmental Services 37552 SE Rachael Drive Sandy, OR 97055

503-668-8660 Cell: 503-449-4372 Lake Lytle Estates Joint Removal-Fill Permit Application (May 21, 2010)

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Contents

Joint Permit Application Form Attachment A Compensatory Wetland Mitigation Plan Attachment B DSL Wetland Delineation Concurrence Letter Draft Deed Restriction

APPENDIX F

# **Protected Wetland Area**

In cooperation between the homeowners association, the local government, and state and federal agencies, these common open space areas have been set aside for protection to conserve wildlife habitat and provide flood control.

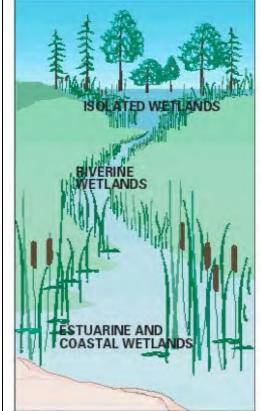
All activities involving alteration in a wetland or aquatic area may require local, state or federal permits.

The City of Rockaway Beach (SA Zone) Special Wetland Area Ordinance describes the low intensity uses permitted.

Thank you for protecting this sensitive environment.







# CHARACTERISTICS AND FUNCTIONS OF WETLANDS

Isolated Wetlands

1. Waterfowl feeding and nesting habitat

- 2. Habitat for both upland and wetland species of wildlife
- 3. Floodwater retention area
- 4. Sediment and nutrient retention area
- 5. Area of special scenic beauty

**Riverine Wetlands** 

- 1. See "isolated wetlands" above
- Sediment control, stabilization of river banks
- 3. Flood conveyance area

Estuarine and Coastal Wetlands

- 1. See "isolated wetlands" above 2. Fish and shellfish habitat and
- spawning areas 3. Nutrient source for marine fisheries
- Protection from erosion and storm surges

APPENDIX G