Paradise Group of Companies, Inc.

Dennis Caudell

Paradise Group General Contractors Paradise Homes

Office 503.710.1227
Email- Paradise @frontier.com



Hay Properties- Project Narrative

New SFRs in WRA

12/28/2018

Address	4325 Kelly Street	4327 Kelly Street	4329 Kelly Street
State ID	2 1E 36AA 1802	2 1E 36AA 1803	2 1E 36AA 1804
Tax ID	01830095	01830102	01830111
Size	5,000 sq ft	5,000 sq ft	5,000 sq ft
Zone	R 4.5	R 4.5	R 4.5

Owner	Ching Hay	Applicant	Paradise Homes
	4356 Riverview Ave,		Dennis Caudell

West Linn, OR 97068 Paradise@frontier.com

503.784.7102 503.710.1227

Work Scope New SFR New SFR New SFR

WRA Review West Linn Development Code Chapter 32

MDA Calculation MDA: 5,000 MDA: 5,000 MDA: 5,000

(sq. ft.)

Mitigation / Revegetation West Linn Development Code Section 32.090, 32.100



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Development Review Application		





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

DEVELOPMENT PENJEW APPLICATION

NON-REFUNDABLE FEE(For Office	Use Only			
NON-REFUNDABLE FEELS		PROJECT NO(s).				
3	5)	REFUNDABLE DEPOSIT	s)	TOTAL		
pe of Review (Please	check all that apply):		'		
Annexation (ANX) Appeal and Review (AR Conditional Use (CUP)	P) • Legis	oric Review Slative Plan or Change Line Adjustment (LLA)		Subdivision Temporary Time Exter	y Uses •	
Design Review (DR)	=	or Partition (MIP) (Prelin		Variance (
Easement Vacation	=	Conforming Lots, Uses				ion/Single Lot (WAP
Extraterritorial Ext. of I	=	ned Unit Development				ion/Wetland (WAP)
Final Plat or Plan (FP)	=	Application Conference		Willamette	e & Tualatin River	Greenway (WRG)
Flood Management Ar	ea Stree	et Vacation		Zone Char	nge	
Hillside Protection & Er	rosion Control			_		
	, Pre-Application, Sidew onal application forms, a				nit applications re	equire
ite Location/Addres	s: 4325 Kelly Str	reet		Assessor's N	lap No.:	
	4327 Kelly Str	eet		Tax Lot(s): T	L 1802, 1803	3, 1804
	4329 Kelly Str	eet		Total Land A	rea: 15,000 s	q ft; 0.34 Ac
rief Description of P NEW SFR(s) in Wi	•	Provision				
(Diease Drimt)	aradise Homes			Phone:	503.710.12	
ddress: 20	0659 NE Lakeside			Email:	Paradise@	frontier.com
ity State Zip:	airview, Oregon 97	/024				
wner Name (required	l): China Hay			Phone:	503.784.710	02
ddress:	Ching Hay 4356 Rivervie	ων Δνα		Email:	mhay8650@	msn.com
ity State Zip:	West Linn, Of					
onsultant Name:				Phone:	503.828.026	35
ddress:	Aquarius Envir			Email:	DanielS@ad	quariusenv.com
	2117 NE Orego Portland, OR 9					
ity State Zip:						
1. All application fees are			•		additional billin	g.
2. The owner/applicant o 3. A denial or approval m	_	•			d has expired	
4. Three (3) complete ha	of digital application m					
4. Three (3) complete ha One (1) complete set (re required in applicati	ion please submit onl	y two sets.			
		t needed				
One (1) complete set						
One (1) complete set of If large sets of plans a No CD required / ** O The undersigned property of	nly one hard-copy se	the filing of this applica			-	
One (1) complete set of flarge sets of plans a No CD required / ** O The undersigned property of comply with all code require	only one hard-copy se owner(s) hereby authorizes ements applicable to my a	the filing of this applicat	of this application do	es not infer a co	mplete submittal.	All amendments
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Development Review Application (Rev. 2011.07)



Proposal:

The proposed development consists of three previously developed lots; one with proposed driveway access from Kelly Street and the others with access via a future access easement granted by Lot 9 to the benefit of Lots 8 and 7. The lots have remained unimproved from the original development and are used as back yard space associated with the adjacent SFR at 4356 Riverview Ave.

For each of the three existing lots, development will include approximately 5,000 square feet or the maximum disturbance area permitted within the WRA. All proposed development will occur within the existing building envelope indicated in the underlying zone.

Site Description:

The site is comprised of three 5,000 square foot lots, for a total of 0.34 acres. It is bounded by single family residences to the North, East, an apartment complex to the South and unimproved Kelly Street to the West. An ephemeral portion of Sunset Creek lies just across the property line to the South.

The site contains 8,373 square feet of Water Resource Area (WRA) overlay classification. 6,627 square feet of the site is not classified as WRA. The site does not contain any floodplain.

There are no wetlands on the property or in the creek vicinity. Slopes greater than 10 percent only exist on Lot 8 (TL 1803). This includes areas of slopes no greater than 13 percent. The creek bed consists of a small ravine that is generally approximately 18" wide by 6" deep. Water, when present in the summer, flows about 1" deep.

West Linn CDC 14.030 Permitted Uses

Permitted Uses

Single-Family detached residential units are uses permitted outright in the R 4.5 zone.

This application proposes three single family detached residential units.

The criterion is satisfied

West Linn CDC 14.070 Dimensional Requirements

Dimensional Requirements for Uses Permitted Outright and Uses Permitted Under Prescribed Conditions

A. Minimum lot size shall be- 4500 sq ft-

Proposed lots are all 5,000 sq ft.

B. The minimum front lot line length or the minimum lot width at the front lot line shall be 35 feet.

All proposed front lot widths are 50 ft. Lengths are 100 feet.

C. The average minimum lot width shall be 35 feet.

All proposed lot widths are 50 ft.

D. Repealed by Ord. 1622.

Under the hardship provisions per CDC 32.110, where development is situated as far as practical from the WRA, front and side setbacks may be reduced up to 50% (per Ch 32.110(F).

- E. The minimum yard dimensions or minimum building setback areas from the lot line shall be:
 - 1. For a front yard, 20 feet; except for steeply sloped lots where the provisions of CDC 41.010 shall apply.

With 50% reduction per 32.110(F), Front yard set backs are 10 ft for all lots.

2. For an interior side yard, five feet.

50% reduction per 32.110(F) notwithstanding, side yards are 5 ft for all lots.

3. For a side yard abutting a street, 15 feet.

Side yards do not abut a street for this application.

4. For a rear yard, 20 feet.

Rear yard set backs are 20 ft for all lots.

F. The maximum building height shall be 35 feet except for steeply sloped lots in which case the provisions of Chapter 41 CDC shall apply.

Building height is limited, for this proposal to 35'

G. The maximum lot coverage shall be 40 percent.

Maximum lot coverage will not exceed 40% of lot area $(5,000 \times 0.40 = 2,000 \text{ sq ft})$.

H. The minimum width of an accessway to a lot which does not abut a street or a flag lot shall be 15 feet.

Access is proposed for Lots 7 and 8 via a 15' wide access easement from Kelly St, granted by the owner of Lot 7 for the benefit of the owner(s) of Lot 7 and 8. The applicant owns all three lots that are the subject of this proposal. The easement will be recorded in association with building permit plan review.

I. The maximum floor area ratio shall be 0.45. Type I and II lands shall not be counted toward lot area when determining allowable floor area ratio, except that a minimum floor area ratio of 0.30 shall be allowed regardless of the classification of lands within the property. That 30 percent shall be based upon the entire property including Type I and II lands. Existing residences in excess of this standard may be replaced to their prior dimensions when damaged without the requirement that the homeowner obtain a non-conforming structures permit under Chapter 66 CDC.

This application proposes development associated with Type II lands- maximum floor area criteria of this subchapter is excepted. Minimum floor area is proposed to exceed 30% of lot area $(5,000 \times 0.30 = 1500 \text{ sq ft})$.

J. The sidewall provisions of Chapter 43 CDC shall apply. (Ord. 1538, 2006; Ord. 1622 § 24, 2014; Ord. 1675 § 17, 2018)

Proposed home design shall comply with or utilize exemptions provided in West Linn CDC Chapter 43

West Linn CDC 32.060 Approval Criteria for the Standard Process

- A. WRA protection/minimizing impacts.
 - 1. Development shall be conducted in a manner that will avoid or, if avoidance is not possible, minimize adverse impact on WRAs.

Under the hardship provisions per CDC 32.110, the minimum required distance from the creek to the house and associated improvements is 15 feet. New homes will be placed as close to the northern property line (opposite of the creek) as practical. To that end, front and side setbacks will be reduced up to 50 percent per Chapter 32.110(F).

- 2. Mitigation and re-vegetation of disturbed WRAs shall be completed per CDC $\underline{32.090}$ and $\underline{32.100}$, respectively.
- 1. All trees, shrubs and ground cover to be planted are to be native plants selected from the Portland Plant List:
- 2. Trees are to be at least one-half inch in caliper, and planted between eight and 12 feet on center, at a rate of five trees per every 500 square feet of disturbance area, and a minimum of 2 species.
- 3. Shrubs are to be in at least a one-gallon container or the equivalent, and planted between four and five feet on center, or clustered in single species groups of no more than four plants, with each cluster planted between eight and 10 feet on center at a rate of 25 plants every 500 square feet of disturbance area, and a minimum of 2 species.

- 4. Any invasive non-native or noxious vegetation is to be removed within the mitigation area prior to planting.
- 5. A minimum survival rate of 80 percent of the materials planted is expected after three years. Plants that die will be replaced in kind, and monitored by the owner;
- 6. Plants are to be mulched and watered and weeded for three years.
- 7. Planting will occur between Dec 1st and April 30th as appropriate for the respective stock, and will be protected as appropriate from wildlife damage.
 - B. Storm water and storm water facilities.
 - 1. Proposed developments shall be designed to maintain the existing WRAs and utilize them as the primary method of storm water conveyance through the project site unless:
 - a. The surface water management plan calls for alternate configurations (culverts, piping, etc.); or
 - b. Under CDC <u>32.070</u>, the applicant demonstrates that the relocation of the water resource will not adversely impact the function of the WRA including, but not limited to, circumstances where the WRA is poorly defined or not clearly channelized.

Re-vegetation, enhancement and/or mitigation of the re-aligned water resource shall be required as applicable.

SFR development will incorporate filter strips to infiltrate/dissipate runoff from disturbed areas into the WRA and creek as appropriate.

The following criteria do not apply.

- 2. Public and private storm water detention, storm water treatment facilities and storm water outfall or energy dissipaters (e.g., rip rap) may encroach into the WRA if:
 - a. Accepted engineering practice requires it;
 - b. Encroachment on significant trees shall be avoided when possible, and any tree loss shall be consistent with the City's Tree Technical Manual and mitigated per CDC 32.090;
 - c. There shall be no direct outfall into the water resource, and any resulting outfall shall not have an erosive effect on the WRA or diminish the stability of slopes; and
 - d. There are no reasonable alternatives available.

The proposed access easement will incorporate stormwater filter strip(s) to filter/dissipate runoff from disturbed areas into the WRA and creek as appropriate. Associated runoff will not encroach upon significant trees. There will not be any direct outfall into Sunset Creek.

3. Roadside storm water conveyance swales and ditches may be extended within rights-of-way located in a WRA. When possible, they shall be located along the side of the road furthest from the water resource. If the conveyance facility must be located along the side of the road closest to the water resource, it shall be located as close to the road/sidewalk as possible and include habitat friendly design features (treatment train, rain gardens, etc.).

Proposed SFR development within the WRA is not adjacent to or within right-of-way(s).

This section does not apply.

4. Storm water detention and/or treatment facilities in the WRA shall be designed without permanent perimeter fencing and shall be landscaped with native vegetation.

Stormwater filter strip design will incorporate native plantings appropriate for stormwater infrastructure applications.

5. Access to public storm water detention and/or treatment facilities shall be provided for maintenance purposes. Maintenance driveways shall be constructed to minimum width and use water permeable paving materials. Significant trees, including roots, shall not be disturbed to the degree possible. The encroachment and any tree loss shall be mitigated per CDC 32.090. There shall also be no adverse impacts upon the hydrologic conditions of the site.

Proposed SFR development within the WRA is not adjacent to or within right-of-way(s) or public areas.

This section does not apply.

6. Storm detention and treatment and geologic hazards: Per the submittals required by CDC 32.050(F)(3) and 92.010(E), all proposed storm detention and treatment facilities must comply with the standards for the improvement of public and private drainage systems located in the West Linn Public Works Design Standards, there will be no adverse off-site impacts caused by the development (including impacts from increased intensity of runoff downstream or constrictions causing ponding upstream), and the applicant must provide sufficient factual data to support the conclusions of the submitted plan.

Please see the engineered stormwater design attached as Exhibit 2

C. Repealed by Ord. 1647.

D. WRA width.

The WRA width for a Water Resource is 65' from the ordinary high water as indicated in Table 32-2. Under the hardship provisions per CDC 32.110, the minimum required distance from the creek to the house and associated improvements is 15 feet.

Please see the Wetland Determination attached as Exhibit 1.

E. Potential Hazards and Risk Mitigation

Per the submittals required by CDC 32.050(F)(4), the applicant must demonstrate that the proposed methods of rendering known or potential hazard sites safe for development, including proposed geotechnical remediation, are feasible and adequate to prevent landslides or other damage to property and safety. The review authority may impose conditions, including limits on type or intensity of land use, which it determines are necessary to mitigate known risks of landslides or property damage.

The site's WRA is a narrow ephemeral portion of Sunset Creek bound by a shallow "ravine" less than 12 inches in depth and 20 inches in width.

The applicant requests the Planning Director waive any applicable requirement for submittal of a topographical survey and for submittal of a geologic report, in order to help the applicant reduce costs associated with this development.

- Platted in 1889, this previously developed land has remained unimproved for use as back yard lawn.
- The areas are well established and stable, without any visible hazard, evidence of slope failure or potential for failure. The site does not present any development constraints due to slope, drainage or geologic hazards.
- DOGAMI Statewide Geohazards Database identifies this area as a moderate (Landslide Possible)
 landslide risk, like more than half of all the developed land within the City of West Linn. DOGAMI
 characterizes Landslide Risk as Low, Moderate, High and Very High.
- Contours on the City's GIS generally depict a 10% slope across the three lots. This meets the CDCs Chapter 2 definition for a Type III land at its very lowest criteria.
- The site topography is flat and landscaped with terracing at either end of the lots. This creates an
 effective topography of less than 10% slopes within the buildable envelope of the lots. This factor
 alone would meet the definition of a Type IV land.

F. Roads, driveways and utilities.

- 1. New roads, driveways, or utilities shall avoid WRAs unless the applicant demonstrates that no other practical alternative exists. In that case, road design and construction techniques shall minimize impacts and disturbance to the WRA by the following methods:
 - a. New roads and utilities crossing riparian habitat areas or streams shall be aligned as close to perpendicular to the channel as possible.
 - b. Roads and driveways traversing WRAs shall be of the minimum width possible to comply with applicable road standards and protect public safety. The footprint of grading and site clearing to accommodate the road shall be minimized.
 - c. Road and utility crossings shall avoid, where possible:
 - 1) Salmonid spawning or rearing areas;
 - 2) Stands of mature conifer trees in riparian areas;
 - 3) Highly erodible soils;
 - 4) Landslide prone areas;
 - 5) Damage to, and fragmentation of, habitat; and
 - 6) Wetlands identified on the WRA Map.
- 2. Crossing of fish bearing streams and riparian corridors shall use bridges or arch-bottomless culverts or the equivalent that provides comparable fish protection, to allow passage of wildlife and fish and to retain the natural stream bed.
- 3. New utilities spanning fish bearing stream sections, riparian corridors, and wetlands shall be located on existing roads/bridges, elevated walkways, conduit, or other existing structures or installed underground via tunneling or boring at a depth that avoids tree roots and does not

alter the hydrology sustaining the water resource, unless the applicant demonstrates that it is not physically possible or it is cost prohibitive. Bore pits associated with the crossings shall be restored upon project completion. Dry, intermittent streams may be crossed with open cuts during a time period approved by the City and any agency with jurisdiction.

- 4. No fill or excavation is allowed within the ordinary high water mark of a water resource, unless all necessary permits are obtained from the City, U.S. Army Corps of Engineers and Oregon Department of State Lands (DSL).
- 5. Crossings of fish bearing streams shall be aligned, whenever possible, to serve multiple properties and be designed to accommodate conduit for utility lines. The applicant shall, to the extent legally permissible, work with the City to provide for a street layout and crossing location that will minimize the need for additional stream crossings in the future to serve surrounding properties.

This proposal does not include any roads, driveways, crossings or associated work within or over the WRA.

This section does not apply.

G. Passive Recreation.

This application does not propose any passive recreation as described in this section.

This section does not apply.

H. Daylighting Piped Streams.

This property does not contain any daylighted stream elements, and this proposal does not create any new daylighting.

This section does not apply

I. Habitat Friendly Development Practices

The following habitat friendly development practices shall be incorporated into the design of any improvements or projects in the WRA to the degree possible:

- 1. Restore disturbed soils to original or higher level of porosity to regain infiltration and storm water storage capacity.
- 2. Apply a treatment train or series of storm water treatment measures to provide multiple opportunities for storm water treatment and reduce the possibility of system failure.
- 3. Incorporate storm water management in road rights-of-way.
- 4. Landscape with rain gardens to provide on-lot detention, filtering of rainwater, and groundwater recharge.
- 5. Use multi-functional open drainage systems in lieu of conventional curb-and-gutter systems.
- 6. Use green roofs for runoff reduction, energy savings, improved air quality, and enhanced aesthetics.

- 7. Retain rooftop runoff in a rain barrel for later on-lot use in lawn and garden watering.
- 8. Disconnect downspouts from roofs and direct the flow to vegetated infiltration/filtration areas such as rain gardens.
- 9. Use pervious paving materials for driveways, parking lots, sidewalks, patios, and walkways.
- 10. Reduce sidewalk width to a minimum four feet. Grade the sidewalk so it drains to the front yard of a residential lot or retention area instead of towards the street.
- 11. Use shared driveways. 3 SFR lots will be using the same shared access driveway with shorter individual driveways to each house.
- 12. Reduce width of residential streets and driveways, especially at WRA crossings.
- 13. Reduce street length, primarily in residential areas, by encouraging clustering.
- 14. Reduce cul-de-sac radii and use pervious and/or vegetated islands in center to minimize impervious surfaces.
- 15. Use previously developed areas (PDAs) when given an option of developing PDA versus non-PDA land.
- 16. Minimize the building, hardscape and disturbance footprint.
- 17. Consider multi-story construction over a bigger footprint. (Ord. 1623 § 1, 2014; Ord. 1635 § 19, 2014; Ord. 1647 § 5, 2016; Ord. 1662 § 7, 2017).

Some Habitat Friendly Development Practices to be utilized in this development are as follows:

- Revegetation will use native shrubs, trees and grasses;
- Driveways and access roadways will use filter strip(s) for runoff pretreatment;
- Rain Barrels will capture roof runoff for later use in landscaped areas;
- Sidewalks will shed runoff to landscaped areas;
- Shared access roadways;
- All proposed development is in Previously Developed Areas;
- Smaller footprint development;
- Efficient Home Design and Construction.

Public Works Standards 5.0016

5.0016 Half =Street plus Travel Lane Construction

Applies to development where abutting property frontage is to be developed and the opposite frontage property is undeveloped, and the full improvement will occur with future development and right-of-way dedication. The City indicated on October 5, 2018 that a Fee in Lieu of half street improvements is preferred in this location.

The portion of this application relating to development of Taxlots 1803 (4327 Kelly Street) and 1804 (4329 Kelly Street) does not adjoin the unimproved section of Kelly street. Access to the property is provided via an access easement granted to the benefit of Taxlot 1803 to be recorded with Clackamas County Recorder at the time of building permit application.

The requirement does not apply to this application.

Stormwater Management

Filter Strip

The proposed development will utilize vegetated filter strip to manage stormwater runoff from respective impervious areas. Specifically- runoff from the house roofs, driveways and the access easement roadway will convey to the vegetated area between the south property line and the access roadway. Stormwater will achieve surface filtration with grass and existing plantings prior to flow to Sunset Creek.

The City of Portland 2016 Stormwater Manual specifies Filter Strips as an element of the Simplified Approach for residential developments under 10,000 sq ft and requires filter strip area at least 20% of new impervious areas.

House	1,135
Driveway	1,000
Roadway	500
	2,635

Treatment	Treatment Area (sq ft)	Lot Width (ft)	Treatment Area Width (ft)
Filter Strip	527.0	50' x	10.54

The distance from the access roadway to the creek varies from 17' to 32'. See Figure 2- Lot Plan and Figure 4- Mitigation Plan.

The criteria is satisfied.

Sanitary Sewer Easement Dedication

Public Sanitary Sewer Easement

Please see notarized document as proposed attached as Exhibit 4.



Figure 1
Site Plan



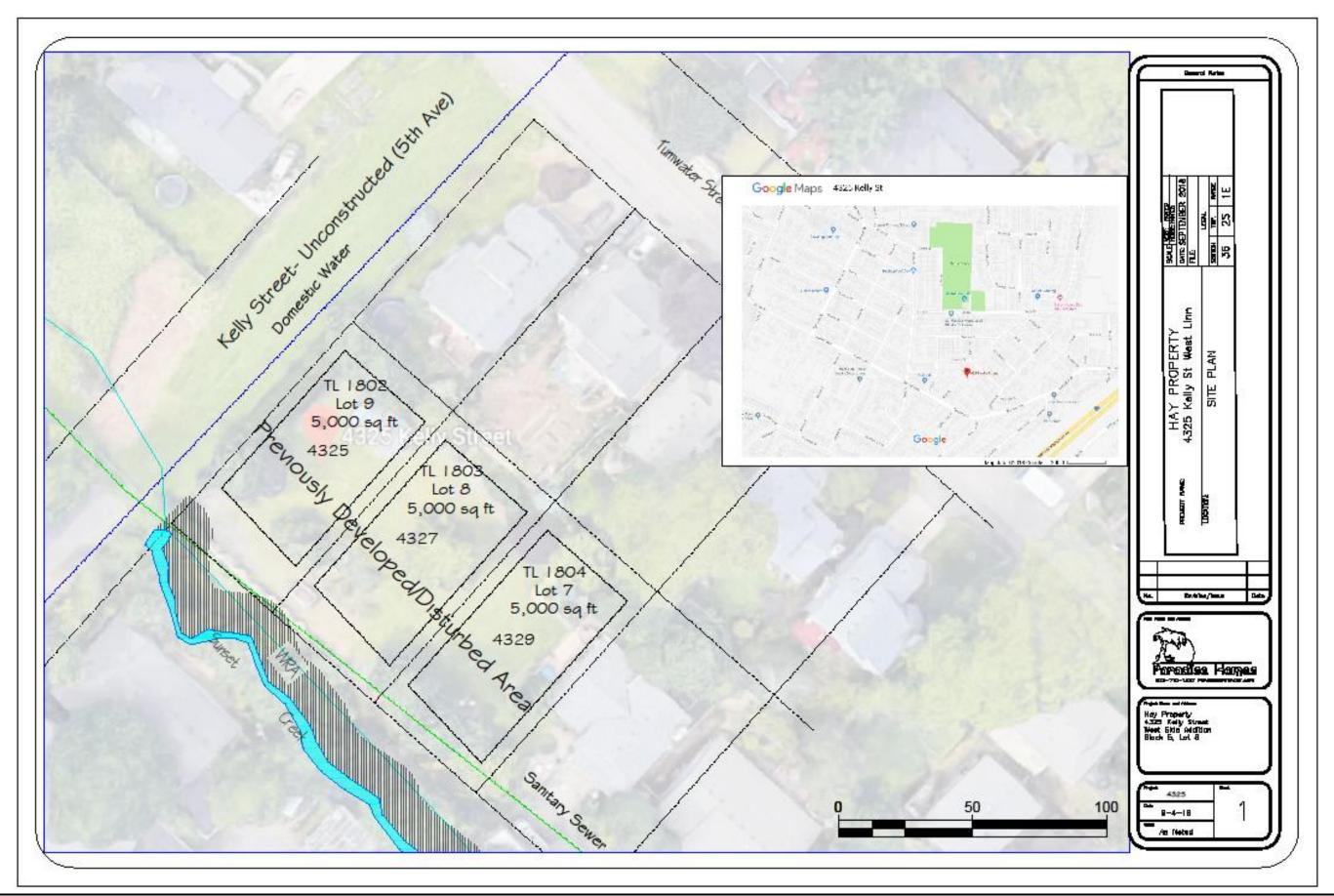


Figure 2
Lot Plan



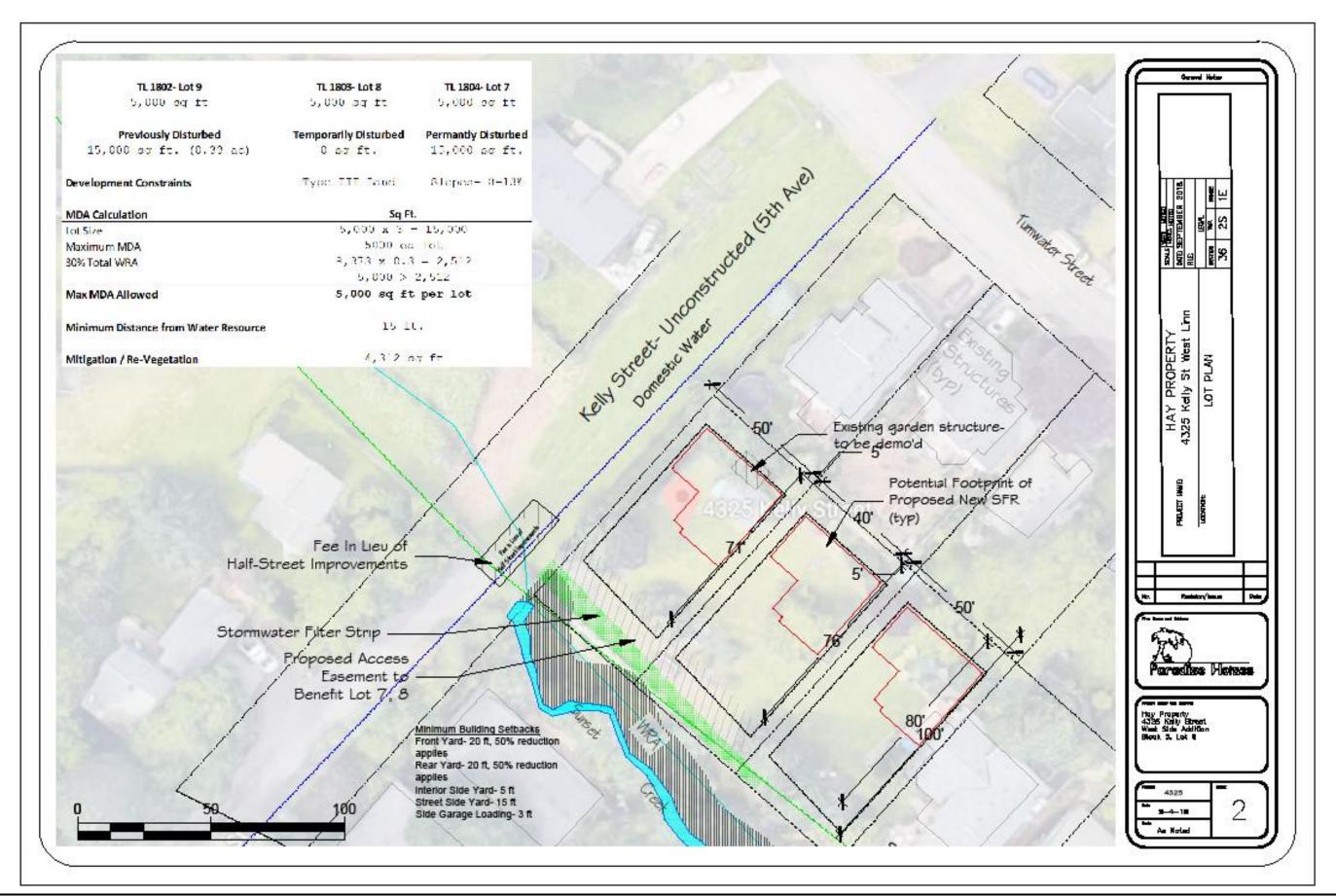
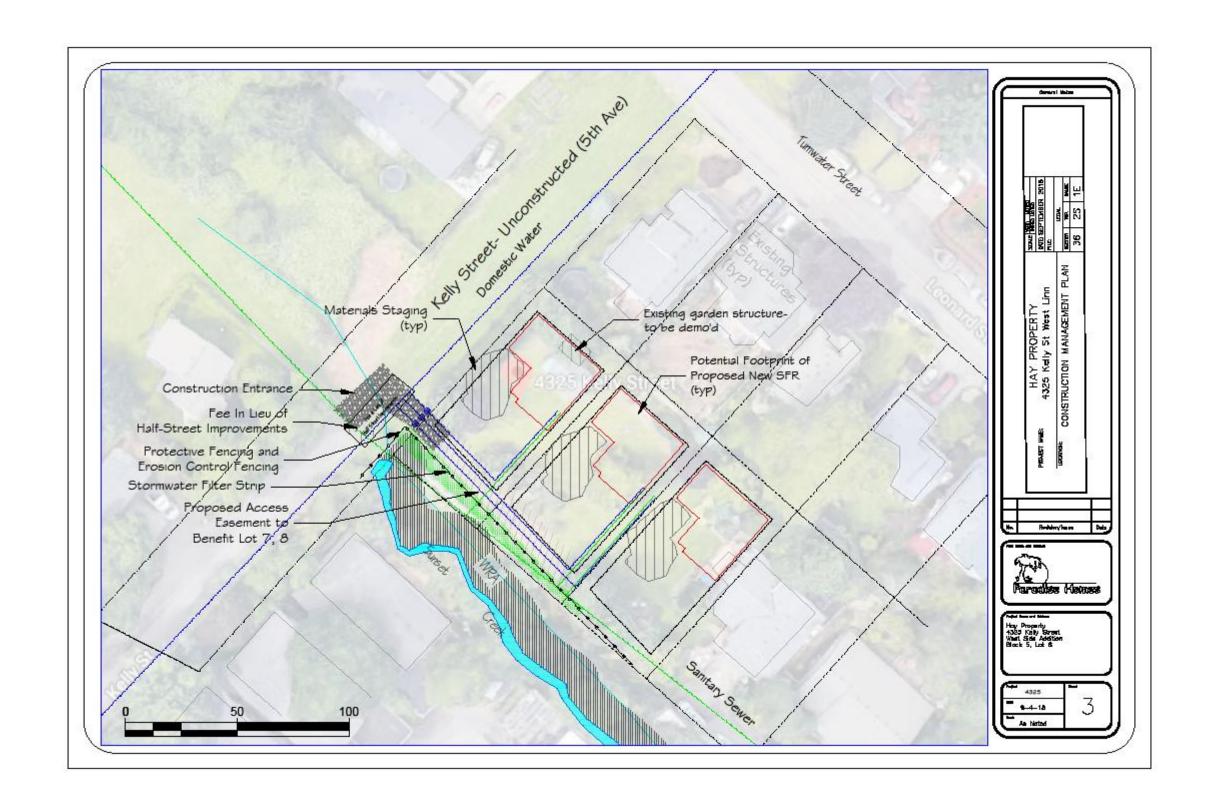


Figure 3			
Construction Manag	ement Plan		





igure 4			
Aitigation Plan			



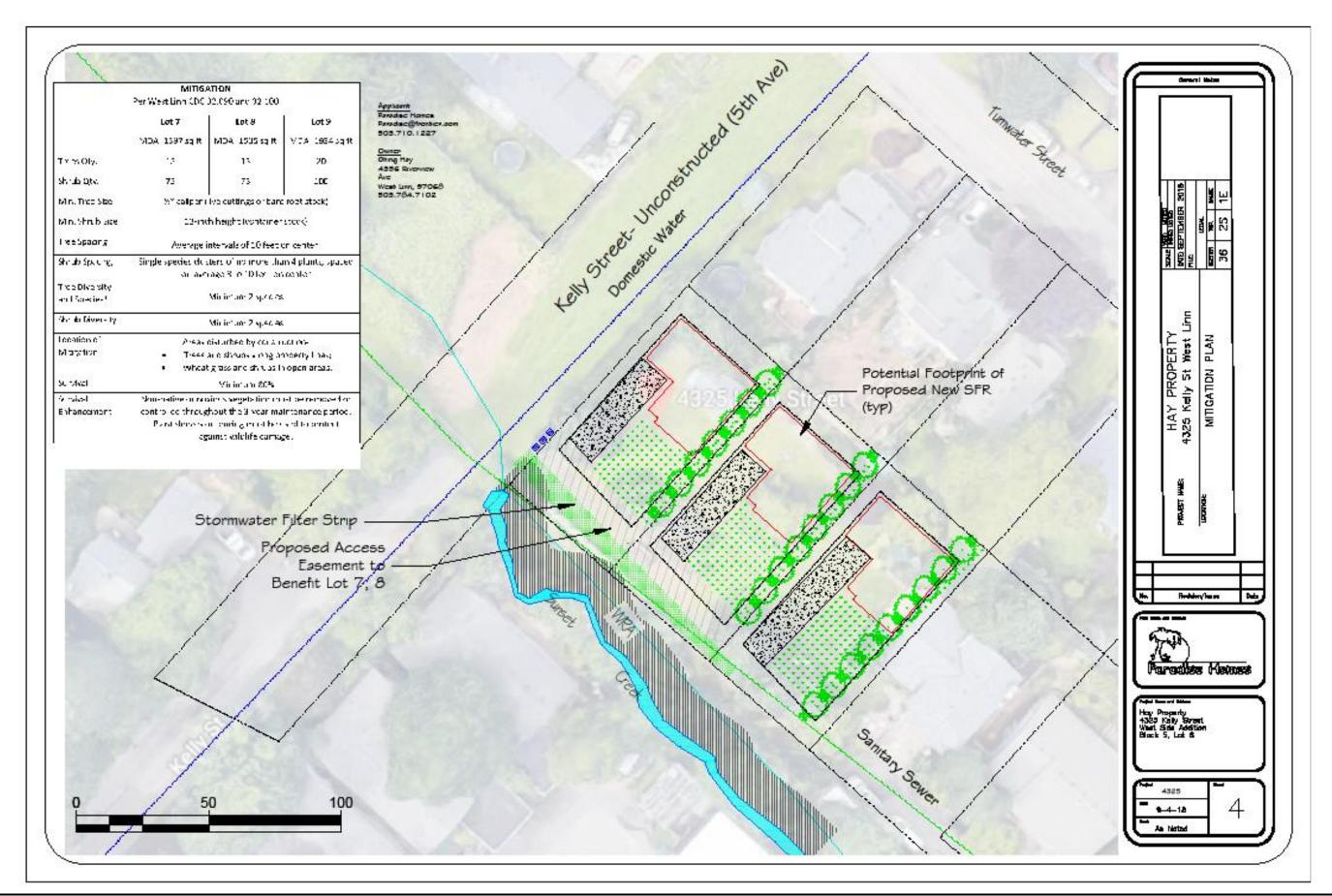


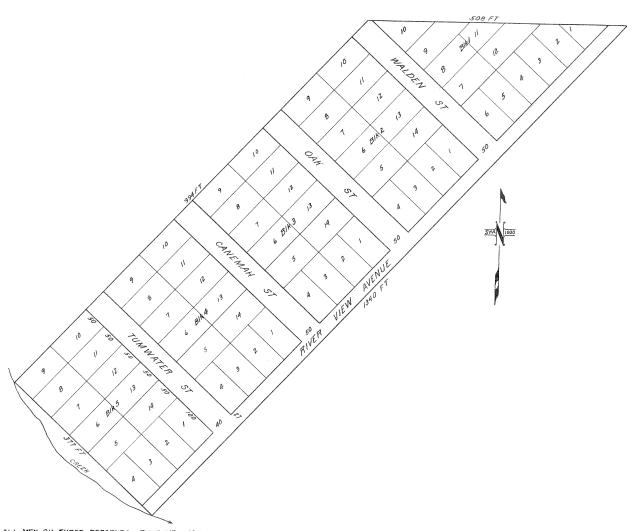
Figure 5

Plat- 036- P1



WEST SIDE ADDITION OREGON CITY

SCALE 1"=100'



KNOW ALL MEN BY THESE PRESENTS--THAT WE, JAMES P. SHAW AND EMILY C. SHAW HIS WIFE, DO HEREBY MAKE, ESTABLISH AND DECLARE THIS PLAT TO BE A MAP OF WEST SIDE ADDITION TO OREGON CITY, AND THE LANDS THEREIN REPRESENTED BEING SITUATED IN SECTION 36 IN TOWNSHIP 2 SOUTH RANGE 1 EAST OF THE WILLAMETTE THENCE SOUTH 899 45 E. 508 FEET TO A STAKE, THENCE S. 42° WEST 1340 FEET TO A CREEK, THENCE WESTERLY BY THE MEANDERS OF SAID CREEK TO DONATION CLAIM WE HEREBY DEDICATE TO THE PUBLIC FOREVER AS STREETS AND ROADS ALL SUCH PORTIONS OF LAND UPON SAID MAP AS THE SAME ARE THEREUPON LAID DOWN AND MAPPED.

IN WITNESS WHEREOF WE HAVE HEREUNTO SET OUR HANDS AND SEALS THIS 15TH DAY OF JUNE, 1889.

IN PRESENCE OF
H. E. CROSS
CHAS E. BURNS
)

JAMES P. SHAW EMILIE C. SHAW

STATE OF OREGON) SS

BE IT REMEMBERED THAT ON THIS 15TH DAY OF JUNE, 1889, BEFORE ME THE UNDERSIGNED NOTARY PUBLIC IN AND FOR OREGON PERSONALLY APPEARED THE ABOVE NAMED JAMES P. SHAW AND EMILIE C. SHAW, KNOWN TO ME TO BE THE PERSONS DESCRIBED IN AND WHO EXECUTED THE ABOVE DEDICATION AND TOWN PLAT, IN WITNESS WHEREOF 1 HAVE HEREUNTO SET MY HAND AND SEAL.

SEAL OF NOTERY HARVEY E. CROSS NOTARY PUBLIC FOR OREGON

1, N. O. WALDEN, BEING FIRST DULY SWORN DEPOSE AND SAY--! SURVEYED THE LAND REPRESENTED ON THE ANNEXED PLAT. THAT I HAVE CORRECTLY SURVEYED AND MARKED WITH PROPER MONUMENTS THE LAND AS REPRESENTED ON SAID PLAT. THAT I PLANTED A STONE MONUMENT INDICATING THE INITIAL POINT OF SUCH SURVEY OF FOLLOWING DIMENSIONS 6 x 6 x 6 AT THE N. W. CORNER OF SAID TRACT.

SUBSCRIBED AND SWORN TO BEFORE ME THIS 15TH DAY OF JUNE, 1889.

SERL
OF
NOTARY PUBLIC FOR OREGON

STATE OF OREGON) SS

COUNTY OF CLACKAMAS) ...

I HEREBY CERTIFY THAT THE WITHIN INSTRUMENT
WAS FILED FOR RECORD JUNE 15TH, 1889, AT 3 O CLOCK AND---MIN. P. M. REQUEST
OF SHAW AND RECORDED JUNE 15. 1889, IN BOOK OF PLATS.

H. H. JOHNSON, COUNTY CLERK

STATE OF OKEGON STATE OF CLACKAMAS S

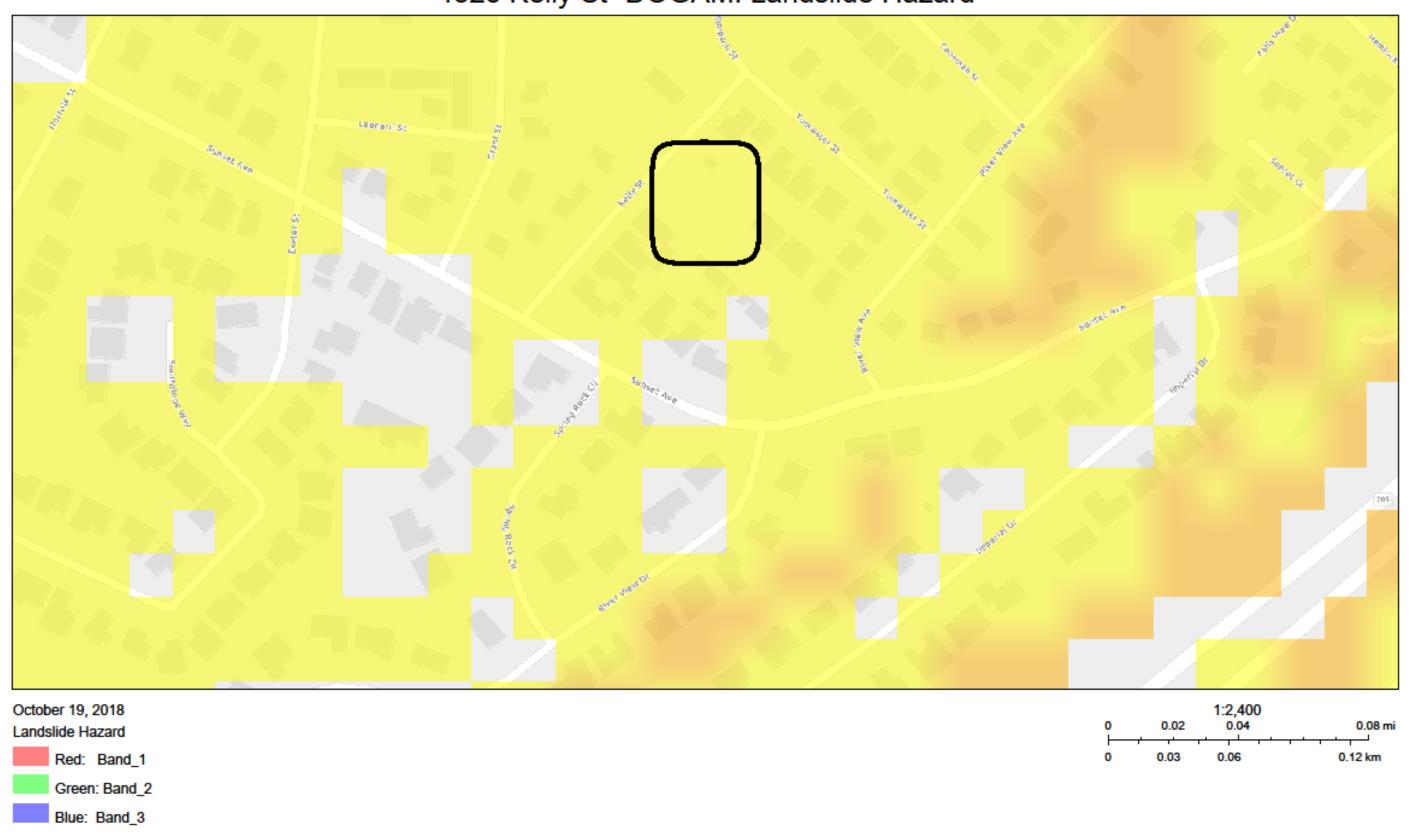
I, E. C. HACKETT, RECORDER OF SAID COUNTY, CERTIFY THE WITHIN AND FOREGOING TO BE A TRUE AND CORRECT COPY OF THE MAP NOW ON FILE IN MY OFFICE AND IN MY CARE AND CUSTODY. JUNE 25, 1930. COUNTY RECORDER

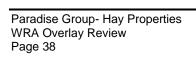
36

DOGAMI Landslide Hazard Map						



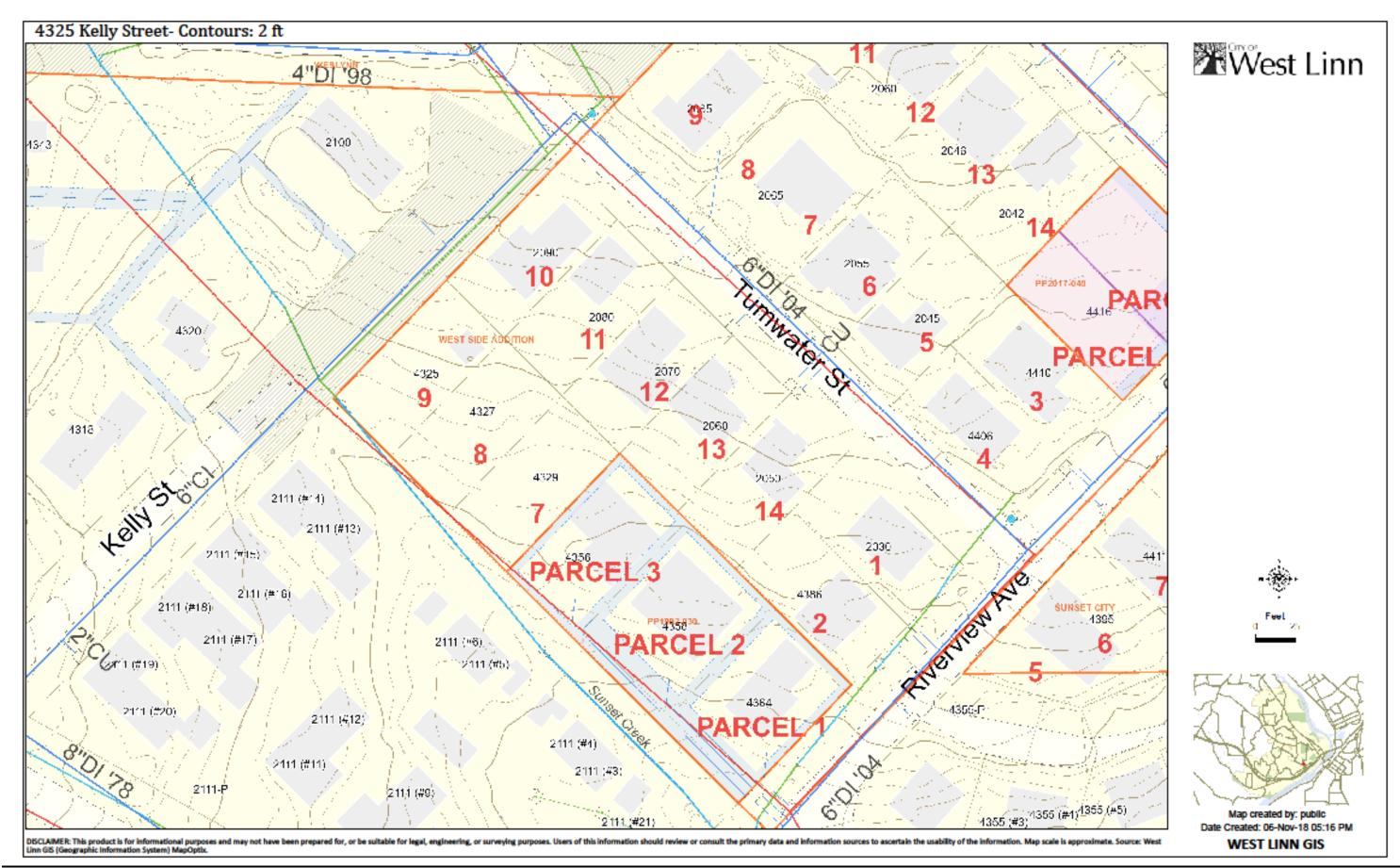
4325 Kelly St- DOGAMI Landslide Hazard





S Map with 2 ft Cor	110013		





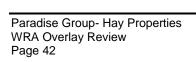


Figure 8		
City of West Linn WRA Map		



MAY 2014



Water Resource Area (WRA) Map

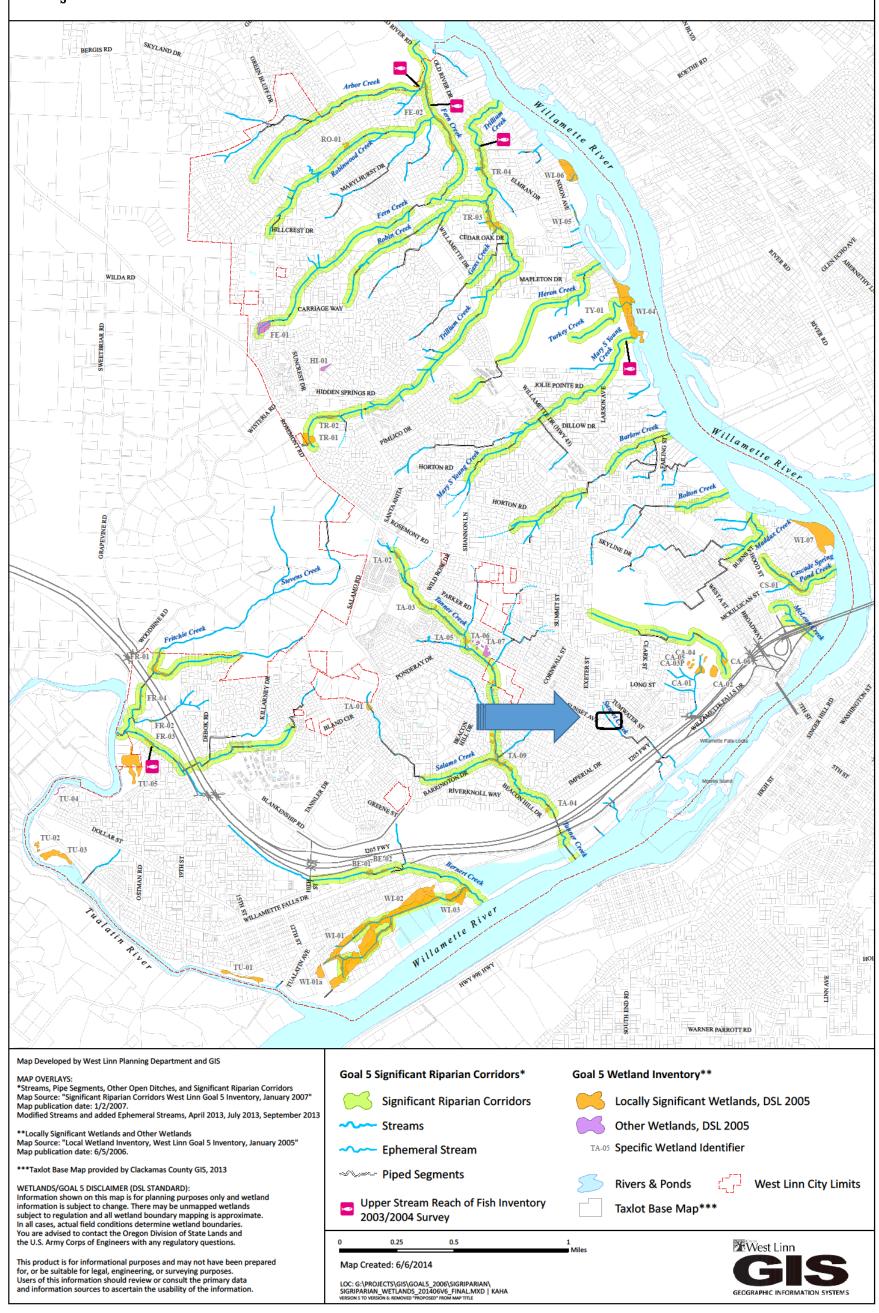


Exhibit 1		
Wetland Determination		





4325 Kelly Street West Linn Wetland Determination

PREPARED FOR: Dennis Caudell, Paradise Homes

PREPARED BY: Turnstone Environmental Consultants, Inc. (Turnstone)

COPIES: Jeff Reams (Turnstone)
DATE: December 17th, 2018

Introduction

Turnstone conducted a wetland and waterways determination for a 0.43-acre Study Area that includes the entirety of tax lots 1802, 1803, 1804 and a portion 800 (tax maps 21E36AA & 21E36AD) in West Linn, Clackamas County, Oregon. The Study Area also includes a small portion of public road right of way north of the existing terminus of Kelly Street. The purpose of this memorandum is to provide information that will help guide future land use planning for the parcel and ensure compliance with regulatory statutes related to protection of wetlands and other waters. The client wishes to develop tax lots 1802, 1803 and 1804 as single-family residences and has commissioned this report to convey the location and condition of aquatic resources that may be subject to city regulations. A portion of the Study Area adjacent to the channel of Sunset Creek is included in the City of West Linn's Water Resource Area (WRA) map and subject to protection through development buffers (Appendix A-Figure 1).

Study Area Setting and Land Use

The legal description of the Study Area is SE 1/4 of NE 1/4, Section 36 in Township 2 South, Range 1 East. The centroid coordinates for the Study Area are 45.3570923°, -122.6249728°. The Study Area is situated on situated on a southeast-facing slope and local topography is influenced by the drainage swale occupied by Sunset Creek.





Source: West Linn GIS (Geographic Information System) MapOptix.



The portions of tax lots 1802, 1803 are currently maintained as a landscaped yard, with lawns and ornamental tree and shrub plantings. Mature Leyland cypress (*Cupressus* x *leylandii*), Deodar cedar (*Cedrus deodara*) and quaking aspen (*Populus tremuloides*) trees along with ornamental grasses (*Miscanthus sinensis*) and flowering cherry trees (*Prunus pendula*) are planted along the Study Area lot lines. The portion of tax lot 800 included in the Study Area contains the channel of Sunset Creek and is a combination of landscaped areas and riparian vegetation dominated by willows (*Salix cf. sitchensis*). Local land use is dominated by medium-density single-family homes. The Study Area is within the Abernethy Creek-Willamette River catchment area (HUC10: 1709000704). No wetlands included in the National Wetland Inventory (NWI) are located in the Study Area (USFWS 2018). The nearest NWI wetlands are located along Tanner Creek to the southwest, at Camassia Natural Area to the Northeast and along the Willamette River to the south. Beyond the channel of Sunset Creek, no wetlands or waters are identified in the West Linn local wetland inventory (Winterbrook 2003).

Methods

Field investigation of the Study Area was conducted on December 5th, 2018. The field investigation utilized the "Routine Onsite" method from the Corps Wetland Delineation Manual (USACE, 1987) as guidance. The Study Area was traversed by foot and a visual assessment was conducted for hydrophytic vegetation, suspect topographical features, and wetland hydrology indicators. Two sample plots were placed upslope of the Sunset Creek channel to document upland (non-wetland) conditions there. Sample plot soil pits were dug to a depth of 20". Absolute aerial cover of plant species was reported for tree, shrub and herb layers, utilizing 10-, 5-, 1-meter square plots respectively. Soil colors (wet) were determined using Munsell soil color charts (Gretag Macbeth 2000). Ordinary High-Water Lines (OHWLs) were determined by mapping the upland limit of the physical and biological characteristics outlined in Army Corps of Engineers Regulatory Guidance Letter 05-05 (USACE 2005). Considering that the timing of field investigation coincided with a dry period, wetland hydrology would be assumed for plots possessing both positive hydric soil and hydrophytic vegetation determinations, though in practice each sampling area resulted in upland soil and vegetation determinations.







Results

No wetlands are present within the Study Area and each of the sample plots resulted in upland determinations. The location of Study Area sample plots is illustrated in Appendix B-Figures 1 & 2. Wetland delineation data forms and ground-level photographs are included in Appendix C. Soils in the Study Area are predominately dark brown (7.5YR 3/3) and silt loam in texture and do not the redoximorphic features associated with persistent seasonally high ground water. A single soil map unit (major component) is present in the Study Area: "Saum silt loam, 8 to 15 percent slopes" (NRCS 2018). The map unit is non-hydric and described as well-drained. Soils observed during field investigation closely resemble the pedon descriptions of "Saum" soils. Study Area sample plots were dominated by ornamental trees and lawn grasses including perennial ryegrass (Lolium perenne) along with a mix of annual weeds including common groundsel (Senecio vulgaris), crabgrass (Digitalis sanguinalis), dovefoot geranium (Geranium molle), subterranean clover (Trifolium subterraneum) and annual bluegrass (Poa annua). Within the Study Area, channel of Sunset Creek is located primarily on tax lot 800 with a small portion on the adjacent public road right of way. Vegetation along the northern section of the creek is maintained as a backyard, with lawn grasses interspersed by raised beds and ornamental plantings. Vegetation along the lower, southern portion of the creek is more natural in character and hosts native riparian species including willows, western red-cedar (Thuja plicata) and ferns (Athyrium filix-femina). The channel is somewhat incised and the OHWL was determined by mapping the top of bank. The channel, along with the proposed 15' development buffer is illustrated in Appendix B-Figures 1 & 2.

Looking south toward SP_02



Mapping Method

Sample points and waterway lines were collected using an EOS™ Arrow Gold GPS receiver paired with a mobile computer equipped with ESRI™ Collector software. RTK positioning over a digital cellular network was utilized to correct GPS data and points are accurate to within 4 cm. To calculate areas and create associated figures, GPS data was collected in a WGS 84 geographic coordinate system and later transformed into a local coordinate system, NAD 1983 State Plane Oregon North FIPS3601 Feet. A CAD file has been provided to the client for incorporation into proposed site layout exhibits.

4 Page



Looking at Sunset Creek on the north portion of tax lot 800.



Looking northwest from the south-central portion of the Study Area

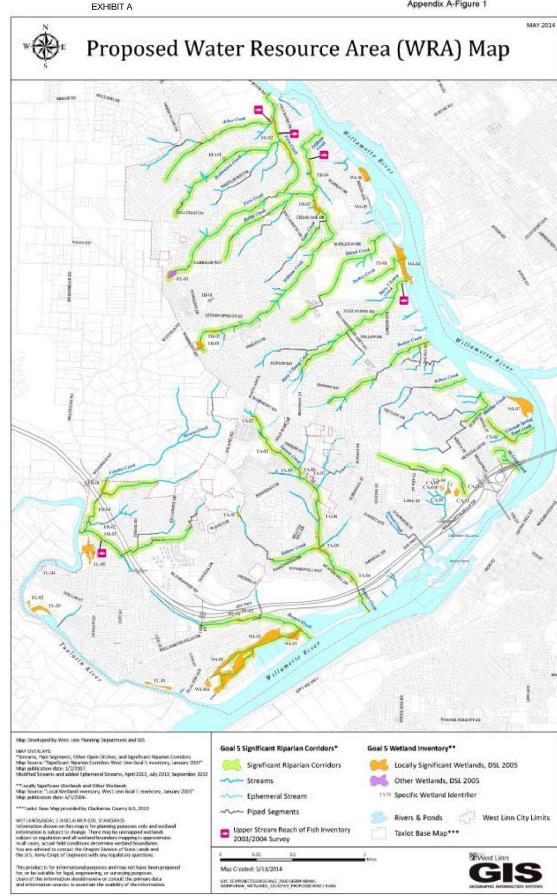




Appendix A:

West Linn WRA Map

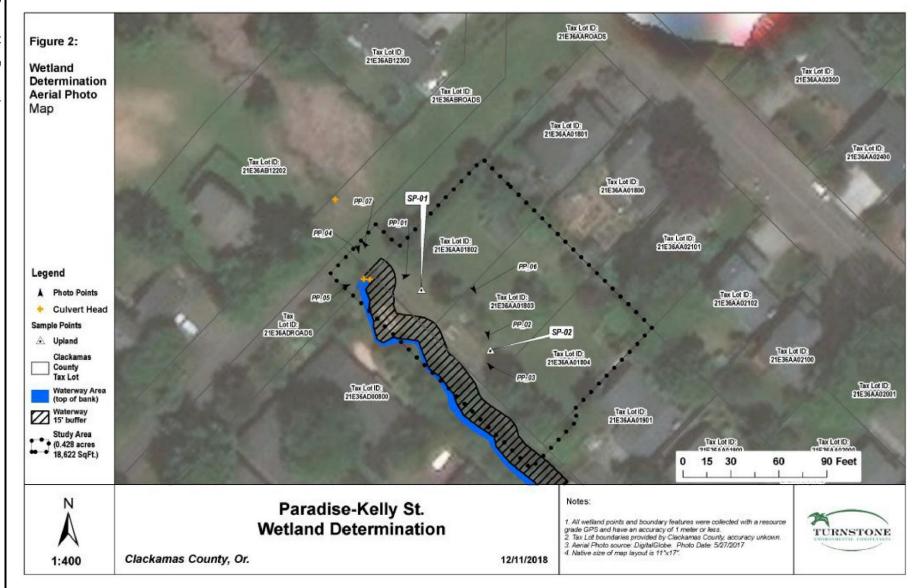
Appendix A-Figure 1

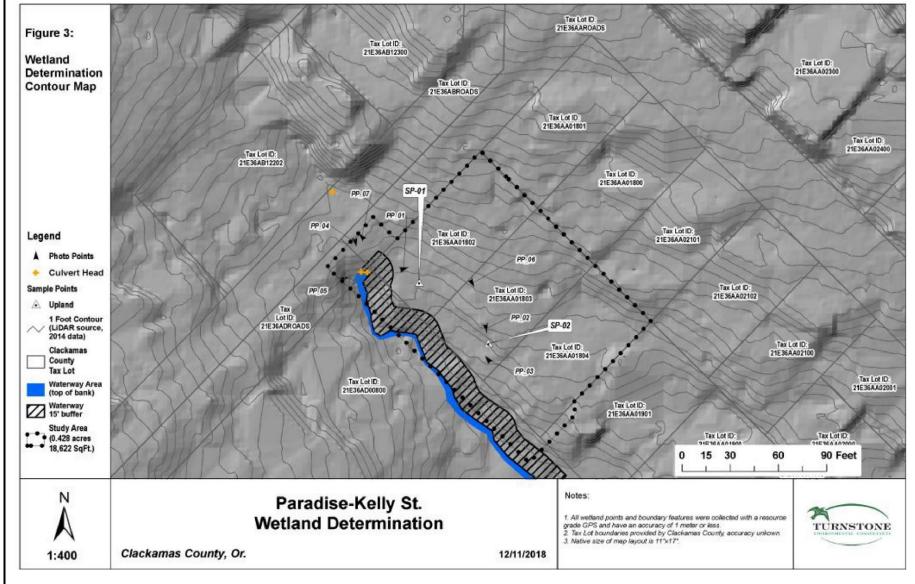




Appendix B:

Wetland Determination Maps







Appendix C:

Wetland Determination Data Forms &

Ground-level Photographs

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

		City/County:	West Linn	Sampling Date: 05-Dec-18
pplicant/Owner: Dennis Caudell-Paradise Homes				State: OR Sampling Point: SP_0
nvestigator(s): Joe Bettis		Section, T	ownship, R	ange: S 36 T 2 S R 1 E
Landform (hillslope, terrace, etc.): Toeslope		Local relief	(concave,	convex, none): concave Slope: 10.0 % /
ubregion (LRR); MLRA 2	Lat.: 45			Long.: -122.625154 Datum: WGS 8-
		.33/13	_	
oil Map Unit Name: Saum silt loam, 8 to 15 percent sl			@ /	NWI classification:
e climatic/hydrologic conditions on the site typical for			s 🏵 No 🤇	(3.11)
re Vegetation 🔲 , Soil 🔲 , or Hydrology	significantly	disturbed?	Are "N	Normal Circumstances" present? Yes No
re Vegetation 🔲 , Soil 🔲 , or Hydrology	naturally pro	blematic?	(If ne	eded, explain any answers in Remarks.)
summary of Findings - Attach site map	showing sa	mpling p	oint loc	ations, transects, important features,
Hydrophytic Vegetation Present? Yes No			Cast Notice and	
Hydric Soil Present? Yes No •		Is the	Sampled /	20 00 <u>20 00</u>
		within	n a Wetland	d? Yes ○ No •
				n=-
Remarks:				
VEGETATION - Use scientific names of	nlants	Dominant		
VEGETATION - Ose scientific flames of p	STOCKET (NES	_Species?		Dominance Test worksheet:
Tree Stratum (Plot size: 10 m)	% Cover		Indicator Status	
1 Cedrus deodara	20	57.1%	FACU	Number of Dominant Species That are OBL, FACW, or FAC:3 (A)
2, Cupressus x leylandii	15	₹ 42.9%	FACU	120 (2007) NAC 19 19
3,	0	0.0%		Total Number of Dominant Species Across All Strata: 8 (8)
4	0	0.0%		
Sapling/Shrub Stratum (Plot size: 5 m	35	= Total Cov	er	Percent of dominant Species That Are OBL, FACW, or FAC: 37.5% (A/
1,Prunus avium	10	50.0%	FACU	Prevalence Index worksheet:
2, Buddleja davidii	5	25.0%	FACU	Total % Cover of: Multiply by:
3 Rubus armeniacus	5	25.0%	FAC	OBL species 0 x 1 = 0
4		0.0%		FACW species 0 x 2 = 0
5		0.0%		FAC species40 x 3 =120
Herb Stratum (Plot size: 1 m)	20	= Total Cov	er	FACU species $62 \times 4 = 248$
1 Poa annua	25	✓ 43.9%	FAC	UPL species $\frac{10}{}$ x 5 = $\frac{50}{}$
2 Senecio vulgaris		✓ 17.5%	FACU	Column Totals:112(A)418(
2. Lollum perenne	10	✓ 17.5%	FAC	Prevalence Index = B/A = 3,732
4 Geranium molle	5	8.8%	UPL	
5 Trifolium subterraneum	5	8.8%	UPL	Hydrophytic Vegetation Indicators:
6 Hypochaeris radicata	1	1.8%	FACU	1 - Rapid Test for Hydrologic Vegetation
7, Veronica arvensis	1	1.8%	FACU	2 - Dominance Test is > 50%
8,	0	0.0%		3 - Prevalence Index is ≤3.0 ¹
9,		0.0%		4 - Morphological Adaptations ³ (Provide supporting data in Remarks or on a separate sheet)
10		0.0%		5 - Wetland Non-Vascular Plants 1
11.————		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
and a set and a company of the second	57	= Total Cov	er	
Woody Vine Stratum (Plot size:) 1.	_			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
T:		0.0%		Hydrophytic
	0	0.0%		Vegetation
2,				
	0	= Total Cov	er	Present? Yes No •

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^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: SP 01 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth (inches) Color (moist) Color (moist) 9/6 Type Texture Silt Loam 0-12 7.5YR 3/3 100 5% charcoal & 1% 10YR 3/4 concretions by volume 7.5YR 3/3 100 Silt Loam 12-14 7.5YR 14-20 4/3 100 Silt Loam ¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except in MLRA 1) Other (Explain in Remarks) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) ³Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Sandy Muck Mineral (S1) Redox depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Yes O No . **Hydric Soil Present?** Depth (inches): Remarks: Diffuse boundary at 14" Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 1, 2, 4A, and 4B) 4A, and 4B) High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) FAC-neutral Test (D5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Frost Heave Hummocks (D7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Yes O No . Surface Water Present? Depth (inches): Yes O No . Water Table Present? Depth (inches): Yes O No . **Wetland Hydrology Present?** Saturation Present? Yes O No . Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available: Remarks: Dry to 20"

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Photo File: IMG_1067.JPG

Orientation:

-facing

Lat/Long or UTM : Long/Easting: -122.625154

Lat/Northing: 45.35713

Description:



Photo File: IMG_1065.JPG

Orientation:

-facing

Description:

Lat/Long or UTM: Long/Easting: 0

Lat/Northing: 0

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

Project/Site: 4325 Kelly Street			City/County:	West Linn		Sampling Date:	05-Dec-18
Applicant/Owner: Dennis Caudell-Paradis	se Homes				State: OR	Sampling Po	int: SP_02
(nvestigator(s): Joe Bettis	***************************************		Section, T	ownship, R	ange: S 36	T2S R1E	
Landform (hillslope, terrace, etc.): To	pesione		Local relief	(concave.	convex, none): conc		: 10.0 % /
races and a second	1-4- 4		(Contract Contract		Datum: WGS 84	
subregion (LRR): MLRA 2	Lat.: 45.357029			Long.: -122.6249		Jatum: WGS 64	
oil Map Unit Name: Saum silt loam, 8	to 15 percent slopes		6.0	0		assification:	
	or Hydrology Or Hydrology	significantly naturally pro	disturbed? blematic?	(If ne	ormal Circumstance	swers in Remarks.)	
Hydrophytic Vegetation Present?	Yes O No 💿		12012	4///	20.000.00		
Hydric Soil Present?	Yes ○ No ●		Is the	Sampled A		2	
	Yes ○ No ●		within	n a Wetland	_{1?} Yes ○ No ⓐ	9	
Remarks:	100 - 110 -						
VEGETATION - Use scientif	fic names of plan	ts.	Dominant Species? Rel.Strat.	Indicator	Dominance Test w	orksheet	
Tree Stratum (Plot size: 10 m	1	% Cover		Status	Number of Dominan		
1 Cupressus x leylandii		15	100.0%	FACU	That are OBL, FACW		(A)
2,		0	0.0%		W. 144 J. 75	19 39	
3,		0	0.0%		Total Number of Do Species Across All St		5 (B)
4		0	0.0%			A Linear Constitution	
Sapling/Shrub Stratum (Plot size: 5	<u>m</u>)	15	= Total Cov	er	Percent of domina That Are OBL, FAC		40.0% (A/B
1, Prunus avium		10	100.0%	FACU	Prevalence Index	worksheet:	
2,		0	0.0%		Total % Cov	er of: Multiply	by:
3,		0	0.0%		OBL species	0 x 1 =	0
4,		0_	0.0%		FACW species	0 x 2 =	0
5			0.0%		FAC species	45 x 3 =	135_
Herb Stratum (Plot size: 1 m	1	10	= Total Cov	er	FACU species	50 x 4 =13 x 5 =	
1 Lolium perenne		25	₹ 30.1%	FAC	UPL species		
2, Poa annua		15	18.1%	FAC	Column Totals:	108(A)	_400 (B)
3_Hypochaeris radicata		15	✓ 18.1%	FACU	Prevalence In	dex = B/A =	3.704
4 Trifolium subterraneum		5_	6.0%	UPL	Hydrophytic Veget	ation Indicators:	
5_Geranium molle		5	6.0%	UPL		or Hydrologic Vegel	ation
6. Senecio vulgaris		5_	6.0%	FACU	2 - Dominance		
7 Digitaria sanguinalis		5	6.0%	FACU	3 - Prevalence		
8 Equisetum arvense 9 Malva neglecta		<u>5</u>	3,6%	UPL	4 - Morphologic	al Adaptations ¹ (Pr	ovide supportin
			0.0%	OFL		arks or on a separat	
401			0.0%		5 - Wetland No	n-Vascular Plants $^{\mathrm{1}}$	
11.————		83	= Total Cov	er	Problematic Hyd	drophytic Vegetatio	n ¹ (Explain)
Woody Vine Stratum (Plot size:						ric soil and wetland disturbed or proble	
1			0.0%		77.7	• • • • • • • • • • • • • • • • • • • •	and the same
2,			0.0%		Hydrophytic Vegetation	Λ	
% Bare Ground in Herb Stratum: 2	20		= Total Cov	er	Present? Y	es ○ No •	
Remarks:							
	ar professional decisions						

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^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS

Soil Sampling Point: SP 02 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth (inches) Color (moist) Color (moist) 9/6 Loc2 Texture Type Remarks 5% charcoal by volume 7.5YR Silt Loam 0-16 3/3 100 7.5YR 4/3 100 Silt Loam 16-20 ¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except in MLRA 1) Other (Explain in Remarks) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) ³Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Sandy Muck Mineral (S1) Redox depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Yes O No . **Hydric Soil Present?** Depth (inches): Remarks: Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) 1, 2, 4A, and 4B) High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Water Marks (B1) Dry Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Frost Heave Hummocks (D7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Yes O No . Surface Water Present? Depth (inches): Yes O No . Water Table Present? Depth (inches): Yes O No . **Wetland Hydrology Present?** Saturation Present? Yes O No . Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available: Remarks: Dry to 20"

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Paradise Group- Hay Properties WRA Overlay Review Page 63

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No Photo

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Description:				



Photo File: IMG_1069.JPG

Orientation:

South southeast -facing

Lat/Long or UTM : Long/Easting: -122.624983

Lat/Northing: 45,357029

Description: PP_03



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Lat/Long or UTM: Long/Easting: 45.357201

Lat/Northing: -122.625326

Description: PP_04



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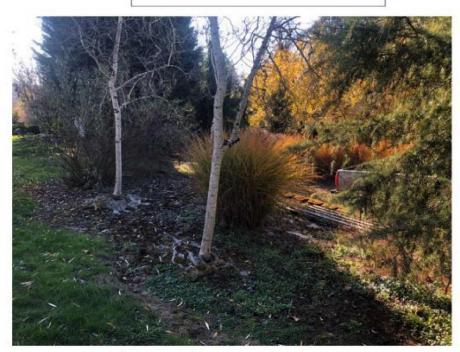


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East southeast -facing

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Description: PP_06

Description:

Lat/Northing: 45,357029

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No Photo

Photo File: N	one.bmp	Orientation:		-facing
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Description:				



Appendix D:

References



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tormwater Design			



4325 Kelly St West Linn, OR

Stormwater Management Report (SWMR)

for Proposed Stormwater Rain Garden

Prepared for:

Paradise Homes 20659 NE Lakeside Drive Fairview, OR 97024 Prepared by:

Aquarius Environmental, LLC 2117 NE Oregon Street, Ste 502 Portland, OR 97232 503.828.0265 www.aquariusenv.com



4325 Kelly Street Aquarius Environmental

Stormwater Management Report (SWMR)

Table of Contents

1	Engineer's Certification	•]
	Project Summary	
	2.1 Site Location	
	2.2 Site Description	
3	Existing Stormwater Conditions	.2
4	Proposed Conditions	. 2
-	Sizing	
	Operation & Maintenance (O&M)	
	•	Š15
7	Engineering Conclusions	.:

Tables

Table 1. Calculated peak flow rate and runoff volume summary.

Appendices

Appendix A: Plan Sheet

Abbreviations

ADDICTIO	icroris
ac	acres
bgs	below ground surface
CB	catch basin
cfs	cubic feet per second
DB	Drainage Basin
DEQ	Oregon Department of Environmental Quality
gpm	gallons per minute
ID	inner diameter
IE	invert elevation
LF	linear feet
NPDES	National Pollution Discharge Elimination System
SBUH	Santa Barbara Urban Hydrograph
sq ft	square feet
SWMR	Stormwater Management Report
SWMM	2016 City of Portland Stormwater Management Mar

1 Engineer's Certification

I hereby certify that this Stormwater Management Report for 4325 Kelly Street has been prepared by me or under my supervision and meets minimum standards of the City of West Linn and normal standards of engineering practice. I hereby acknowledge and agree that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities designed by me.

Digitally Signed 1/02/19

RENEWAL DATE: 6/30/2020

Aquarius Environmental, LLC Daniel A. Scarpine, P.E. Principal Engineer 4325 Kelly Street Aquarius Environmental

2 Project Summary

This project proposes to provide approximately 1,100 square foot driveway access to existing 3 lots (4325, 4327, 4329 respectively). Runoff from the driveway will convey to a proposed raingarden which manages stormwater from driveway surfaces.

In conformance with City of West Linn standards, AE prepared this Stormwater Management Report (SWMR) pursuant to the requirements of the *2016 City of Portland Stormwater Management Manual (SWMM)*. The following SWMR, along with a Plan Sheet (Appendix A), describes the sizing, location, and installation plans of the proposed rain garden.

2.1 Site Location

The project site (Site) is located at 4325 Kelly Street, West Linn, Oregon (21 E 36AA - Tax Lots 1802, 1803, 1804).

2.2 Site Description

The existing 15,000 square foot site is undeveloped. The Site is entirely zoned R4.5(Residential 4.5). New single family residential development is proposed. The site is located adjacent to the Sunset Creek water resource area (WRA)

3 Existing Stormwater Conditions

Currently runoff from the site conveys to Sunset Creek. The southwest portion of the Driveway/Parking area runoff was conveyed to an existing rain garden located west of the existing house.

4 Proposed Conditions

Approximately 1,100 square feet of new driveway will be constructed. A new proposed stormwater rain garden will be located on the southern edge of the roadway to collect, treat, and detain runoff prior to discharge to Sunset Creek.

Runoff from future house development will be separately managed by raingardens adjacent to any proposed homes.

5 Sizing

The proposed rain garden is sized following the presumptive approach sizing factor of 0.10 times the contributing impervious area.

	Imper	rvious	Minimum
	<u>A</u> 1	rea	<u>Rain</u>
	Acre	Sq Ft	Garden
			Size (sq ft)
Driveway Rain Garden	0.025	1,100	110

4325 Kelly Street Aquarius Environmental

To uniformly distribute flow and collection, the proposed development has the raingarden parallel to the driveway which provides approximately 200 square feet of facility. This exceeds the minimum required by approximately 1.8X.

6 Operation & Maintenance (O&M)

Maintenance of the rain garden will be required to clean out potential settled solids and maintain the vegetation. The rain garden will require regular weeding and inspection of plants.

The rain garden shall be planted with plants on the 2016 SWMM Approved Plant list (Appendix H).

7 Engineering Conclusions

The proposed rain garden described in this SWMR is expected to meet the site's needs for driveway stormwater management.

Appendix A: Plan Set



Exhibit 3

Fee-In-Lieu of Half Street Improvements

dennis caudell

From: Pepper, Amy <APepper@westlinnoregon.gov>

Sent: Friday, October 5, 2018 2:57 PM

To: dennis caudell
Cc: Arnold, Jennifer
Subject: Fee in lieu - Kelly Street

Attachments: ord_1646_2016_transportation_system_plan_local street cross section.pdf; PI-Fee In Lieu

of Street Improvements Request Associated with A Building Permit.docx

Dennis ~

Per our meeting, attached you will find a fee in lieu request and a copy of the local street cross-section from the City's Transportation System Plan. We would anticipate the 24-foot local (no parking) cross-section would be adequate in this location.

Please let me know if you have any questions about this information.

Amy

Amy Pepper Senior Project Engineer Engineering

22500 Salamo Rd West Linn, Oregon 97068 apepper@westlinnoregon.gov westlinnoregon.gov 503-722-3437

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Exhibit 4

Sanitary Sewer Utility Easement

AFTER RECORDING RETURN TO:

Attn: Engineering Department City of West Linn 22500 Salamo Road West Linn, OR 97068

NO CHANGE IN TAX STATEMENTS

GRANTOR: Ching Hay

GRANTEE: City of West Linn ("City")

RECITALS:

- 1. Ching Hay, Grantor owns residential real property legally described as Lots 7, 8, and 9 of Block 5 of the West Side Addition to Oregon City and in Exhibit A ("Property"), which is attached and incorporated by this reference.
- 2. City of West Linn, a municipal corporation ("City"), installs, removes, and maintains utilities throughout the city.
- 3. City requests an easement on the Property to allow access to utilities in the location described in Exhibit B and "C" ("Easement Area"), which is attached and incorporated by this reference.

NOW, THEREFORE, in consideration of the mutual promises of the parties, for \$0 (zero dollars) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

PUBLIC SANITARY SEWER EASEMENT

- 1. <u>Grant of Easement</u>. Ching Hay, Grantors, its heirs, successors and assigns, grant and convey to the City, a permanent nonexclusive public sanitary sewer easement ("Utility Easement") along the Property.
- 2. <u>City's Rights</u>. The Utility Easement shall be interpreted broadly to allow the City to use the easement for all purposes related to public utilities. The Utility Easement shall be used for ingress and egress of personnel for the purpose of constructing, reconstructing, operating, and maintaining utilities and related facilities that are above ground and underground. The City has the right to excavate, construct, install, place, lay, operate, inspect, maintain, relocate, add to, and remove underground pipelines and/or cables and related structures and facilities within the Easement Area. The City has the right to cut, trim, and remove trees or other vegetation within the Easement Area, and the right to remove other obstructions that may endanger or interfere with the construction, reconstruction, maintenance, inspection, efficient service, or removal of all or any part of its respective utility system on or from the Easement Area without the necessity at any time of procuring the consent or permission of anyone. The City has the right to enter the Easement Area at any and all times for the exercise of any of the easement rights.

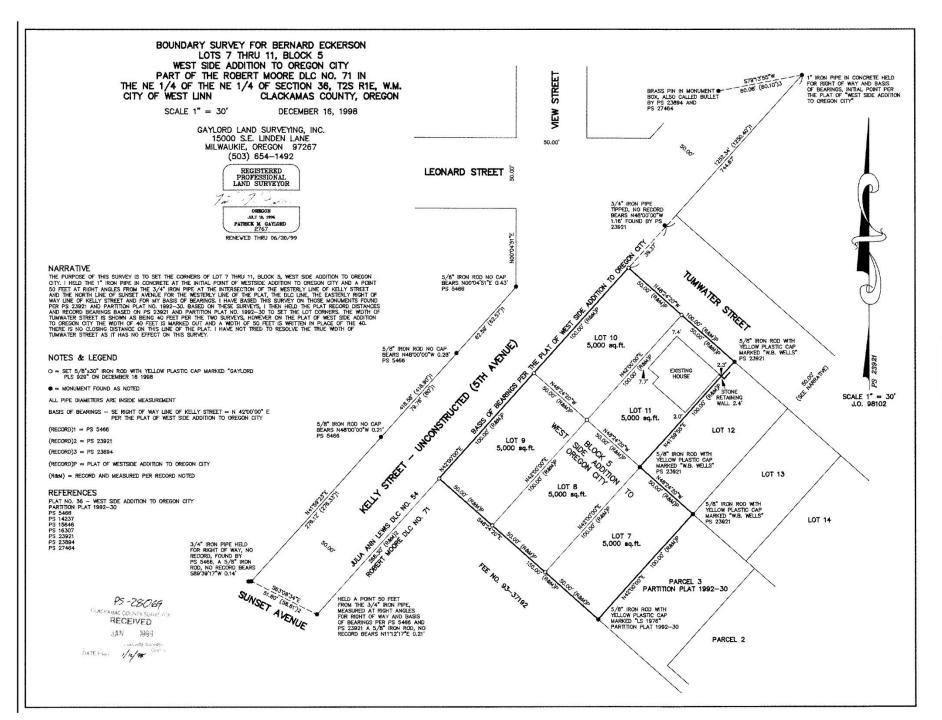
- 3. Reservation of Rights and Limitation on Reserved Rights. Grantors reserve to themselves the right to continued use of the surface area within the Easement Area for all lawful purposes that do not interfere with, and are not inconsistent with, the City's rights granted in this Utility Easement. This reservation of rights does not include the right to build structures within the Easement Area without the City's permission, or to create other impediments to the City's easement rights.
- 4. <u>Liability for Non-easement Property</u>. The City shall be liable for any damage to non-easement property and for any failure to remove debris and leave the ground surface within Easement Area in a neat and presentable condition after each time it completes work within the Easement Area. The City shall have a reasonable time, not to exceed two weeks after notice from Grantors, to clean up the Easement Area. Notice shall be sent to City of West Linn, 22500 Salamo Road, West Linn, OR 97068.
- 5. <u>Indemnification</u>. To the extent possible under the Oregon Constitution and Oregon Tort Claims Act, Grantor shall defend and indemnify the City, its officers, employees, and agents (collectively "City Parties"), against any and all claims, demands, liabilities, judgments, awards, fines, losses, damages, and expenses of any kind, including attorneys' fees at trial or on appeal (collectively "Claims"), related to this Agreement and arising either directly or indirectly from and to the extent of, any act, error, omission or negligence of Grantor, its employees, contractors, licensees, or agents in Grantor's use of the Easement Area. Nothing in this Agreement, City's approval of plans and specifications, or inspection of work is an acknowledgement of responsibility or liability unless otherwise provided by applicable law.
- 6. <u>Grantor's Warranty</u>. Grantor covenants that it has the right to convey this Utility Easement to the City and to provide quiet possession to the City.
- 7. <u>Breach Remedies Equitable Relief.</u> Grantors acknowledge that the rights granted to the City are unique in that money damages alone for breach of this Utility Easement by Grantors are inadequate, and that the City may bring an action at law or a suit in equity to obtain relief, including specific performance, injunctive relief and any other available equitable remedy.
- 8. <u>Legal Effect</u>. This Utility Easement shall become effective and binding on the date signed by the Grantors and inure to the benefit of Grantors and the City, and their respective heirs, personal representatives, successors and assigns. This Utility Easement shall run with the land.
- 9. <u>Attorneys' Fees</u>. In the event suit or action is instituted to interpret or enforce the terms of this Utility Easement, the prevailing party shall be entitled to recover from the other party such sums as the court may determine are reasonable as attorneys' fees at trial, or on appeal of such suit or action, in addition to all other sums provided.
- 10. <u>Severability</u>. Nothing contained herein shall be construed to require the commission of any act contrary to law, and wherever there is any conflict between any provisions of this Utility Easement and any present or future statute, law, ordinance or regulation contrary to which the parties have no legal right to contract, the latter shall prevail; however, the provision of this Utility Easement, which is affected shall be curtailed and limited only to the extent necessary to bring it

11. Waiver. Failure of either party at any time to require performance of any provision of this Utility Easement shall not limit the party's right to enforce the provision, nor shall any waiver of any breach of any provision be a waiver of any succeeding breach of the provision or a waiver of the provision itself or any other provision. This easement is granted this ____ day of _ GRANTOR: By: Ching Hay STATE OF OREGON) 55. COUNTY OF CLACKAMAS This instrument was acknowledged before me on March 6, 2019 by Name of Grantor(s) OFFICIAL STAMP SARAH KATE FLATHMAN Sever Kate Flather NOTARY PUBLIC-OREGON COMMISSION NO. 972543 Notary Public for Oregon MY COMMISSION EXPIRES MARCH 13, 2022 My commission expires: 31 13 12022 This Utility Easement is hereby approved by the City of West Linn, Oregon. Eileen Stein, City Manager STATE OF OREGON)ss. COUNTY OF CLACKAMAS This instrument was acknowledged before me on ___ _____, 2019, by Eileen Stein, City Manager for the City of West Linn, a municipal corporation, on behalf of the City.

> Notary Public for Oregon My commission expires:

within the requirements of the law, and all other provisions of the Utility Easement shall remain in

effect.



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