



**Clackamas County Planning and Zoning Division
Department of Transportation and Development**

Development Services Building
150 Beavercreek Road | Oregon City, OR 97045

503-742-4500 | zoninginfo@clackamas.us
www.clackamas.us/planning

NOTICE OF LAND USE APPLICATION IN YOUR AREA

Date of Mailing of this Notice: 08/19/2026

Notice Mailed To: Property owners within 750 feet of the subject property
Community Planning Organizations (CPO)
Interested Agencies

File Number: Z0253-26

Application Type: Utility Facility

Proposal: UTILITY FACILITY - The applicant proposes to improve and upgrade an existing substation and associated development. The project is proposed to address increased needs for power capacity in the region and to improve infrastructure resiliency. Proposed development includes driveway resurfacing and extension, replacement and upgrades to substation equipment, replacement of fencing around the substation, replacing and upgrading transmission lines to the substation, and installation of subsurface distribution lines and associated structures.

Applicable Zoning and Development Ordinance (ZDO) Criteria: In order to be approved, this proposal must comply with ZDO Sections 202, 401, 407, 1307, and ORS 215.. The ZDO criteria for evaluating this application can be viewed at <https://www.clackamas.us/planning/zdo.html>

Applicant: PORTLAND GENERAL ELECTRIC COMPANY (PGE)

Property Owner: PORTLAND GEN ELEC CO

Site Address: 17502 S NORTH END RD
OREGON CITY, OR 97045

Location: At 17502 S NORTH END RD that is located on the southeast corner of the intersection of S North End Road and S Grasle Rd.

Assessor's Map and Tax Lot: 32E12A 00301
32E12A 00200
32E12A 00202
32E12A 00203
32E12A 00300

Zoning: AG/F - AG/FOREST DISTRICT

Staff Contact: Joy Fields 503-742-4510

E-mail: JFields@clackamas.us

Community Planning Organization: The following recognized Community Planning Organization (CPO) has been notified of this application. This organization may develop a recommendation. You are welcome to contact the CPO and attend their meeting on this matter, if one is planned.

REDLAND-VIOLA-FISCHERS MILL CPO
LANCE WARD 503-631-2550
REDLAND-CPO@CCGMAIL.NET

If this CPO is currently inactive and you are interested in becoming involved in land use planning in your area, please contact Clackamas County Community Engagement at communityinvolvement@clackamas.us. In some cases where there is an inactive CPO, a nearby active CPO may review the application. To determine if that applies to this application, call or email the staff contact.

How to Review this Application: A copy of the application, all documents and evidence submitted by or on behalf of the applicant, and applicable criteria are available for inspection at no cost. Copies may be purchased at the rate of \$2.00 per page for 8 1/2" x 11" or 11" x 14" documents, \$2.50 per page for 11" x 17" documents, \$3.50 per page for 18" x 24" documents and \$0.75 per sq ft with a \$5.00 minimum for large format documents. You may view or obtain these materials:

- Online at <https://aca-prod.accela.com/clackamas>. After selecting the Planning tab enter the file number to search. Select File Number and then select Attachments from the dropdown list, where you will find the submitted application; or
- By emailing or calling the staff contact.

Decision Process: Following the closing of the comment period, a written decision on this application will be made and a notice of decision will be mailed to you. If you disagree with the decision, you may appeal to the Land Use Hearings Officer, who will conduct a public hearing. There is a \$250 appeal fee.

How to Comment on this Application:

To ensure your comments are considered prior to issuance of the decision, they must be received within 20 days of the date of this notice. Comments may be submitted by email to the staff contact or by regular mail to the address at the top of this notice. Please include the file number on all correspondence, and focus your comments on the approval criteria identified above or other criteria that you believe apply to the decision.

Comments:

Your Name/Organization

Telephone Number

Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at least three (3) business days before the meeting at 503 -742-4545 or DRenhard@clackamas.us.

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翻译或口译? | Cần Biên dịch hoặc Phiên dịch? | 번역 또는 통역?



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Land use application for:

UTILITY FACILITY In EFU District

Application Fee: \$1,099

STAFF USE ONLY

RECEIVED

Jul 8 2026

Clackamas County
Planning & Zoning Division

Z0253-26

Staff Initials:

File Number:

APPLICANT INFORMATION

Applicant name: Portland General Electric Company (PGE)	Applicant email: kelsey.trostle@pgn.com	Applicant phone: 503-464-2387	
Applicant mailing address: 121 SW Salmon Street	City: Portland	State: OR	ZIP: 97204
Contact person name (if other than applicant): Winterbrook Planning	Contact person email: ben@winterbrookplanning.com	Contact person phone: 503-827-4422	
Contact person mailing address: 610 SW Alder Street, Suite 810	City: Portland	State: OR	ZIP: 97205

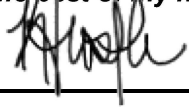
PROPOSAL

Brief description of proposal:

To redevelop an existing substation.

SITE INFORMATION

Site address: 17502 S North End Road	Comprehensive Plan designation: Forest	Zoning district: AG/F
Map and tax lot #: Township: <u>3</u> Range: <u>2</u> Section: <u>12A</u> Tax Lot: <u>200, 202,</u> Township: <u>"</u> Range: <u>"</u> Section: <u>"</u> Tax Lot: <u>203, 300,</u> Township: <u>"</u> Range: <u>"</u> Section: <u>"</u> Tax Lot: <u>301</u>		Land area: 65.23 AC
Adjacent properties under same ownership: Township: <u> </u> Range: <u> </u> Section: <u> </u> Tax Lot: <u> </u> Township: <u> </u> Range: <u> </u> Section: <u> </u> Tax Lot: <u> </u>		

Printed names of all property owners: Portland General Electric Company. Laura Bishop, Manager, PGE Property Rights Org.	Signatures of all property owners: <u>Laura Bishop</u> Laura Bishop (Jul 1, 2026 12:57:31 PDT)	Date(s): Jul 1, 2026
I hereby certify that the statements contained herein, along with the evidence submitted, are in all respects true and correct to the best of my knowledge. Applicant signature: 		Date: 7.1.2026

A. Review applicable land use rules:

This application is subject to the provisions of [Section 401, Exclusive Farm Use District \(EFU\)](#) of the [Clackamas County Zoning and Development Ordinance](#) (ZDO).

This application is also subject to the ZDO's definitions, procedures, and other general provisions, as well as to the specific rules of the subject property's zoning district and applicable development standards, as outlined in the ZDO.

B. Turn in all of the following:

- ☒ **Complete application form:** Respond to all the questions and requests in this application, and make sure all owners of the subject property sign the first page of this application. Applications without the signatures of *all* property owners are incomplete.
- ☒ **Application fee:** The cost of this application is **\$1,097**. Payment can be made by cash, by check payable to "Clackamas County", or by credit/debit card with an additional card processing fee using the [Credit Card Authorization Form](#) available from the Planning and Zoning website. Payment is due when the application is submitted. Refer to the FAQs at the end of this form and to the adopted [Fee Schedule](#) for refund policies.
- ☒ **Site plan:** Provide a site plan (also called a plot plan). A [Site Plan Sample](#) is available from the Planning and Zoning website. The site plan must be accurate and drawn to-scale on paper measuring no larger than 11 inches x 17 inches. The site plan must illustrate all of the following (when applicable):
 - Lot lines, lot/parcel numbers, and acreage/square footage of lots;
 - Contiguous properties under the same ownership;
 - All existing and proposed structures (including dwellings, accessory buildings, fences, and all structures associated with utility facilities), utility lines, roads, driveways, parking areas, and easements, each with identifying labels and dimensions;
 - Setbacks of all structures from lot lines and easements;
 - Significant natural features (rivers, streams, wetlands, slopes of 20% or greater, geologic hazards, mature trees or forested areas, drainage areas, etc.); and
 - Location of utilities, wells, septic drain fields, and replacement drain field areas.

C. For a utility facility necessary for public service:

If you are proposing a utility facility necessary for public service (including wetland waste treatment systems, but *not* including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height), attach a detailed **narrative, plans, and maps**.

The narrative, plans, and maps must respond to 1-7 as follows (*except for proposals for an interstate natural gas pipeline and associated facilities authorized by and subject to regulation by the Federal Energy Regulatory Commission, which do not need to address 1 or 5*):

1. Explain what the proposed utility facility is, what utility services it will provide, whether it's providing any electrical power for public use by sale, and the height of any transmission tower;
2. Demonstrate that the utility facility is necessary by showing that reasonable alternatives have been considered and that the facility must be sited in the EFU District due to *one or more* of the following factors:
 - Technical and engineering feasibility;
 - The proposed facility is locationally-dependent (a utility facility is "locationally-dependent" if it must cross land in one or more areas zoned for exclusive farm use in order to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands);
 - Lack of available urban and nonresource lands;
 - Availability of existing rights of way;
 - Public health and safety; and
 - Other requirements of state and federal agencies;
3. OAR 660-033-0130(16)(a)(B) allows for costs associated with of the factors listed in Number 2 above to be considered, but cost alone may not be the only consideration in determining that a utility facility is necessary for public service. Explain any costs associated with the factors listed in Number 2 above that you wish to be considered;
4. Explain how the owner of the utility facility be responsible for restoring, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility (*Note: OAR 660-033-0130(16)(a)(C) does not prevent the owner of the utility facility from requiring a bond or other security from a contractor or otherwise imposing on a contractor the responsibility for restoration*);
5. Identify impacts, if any, the facility will have on surrounding lands devoted to farm use that could cause a significant change in accepted farm practices or a significant increase in the cost of farm practices on surrounding farmlands;

6. Identify whether any on-site or off-site facilities for temporary workforce housing for workers constructing the utility facility are proposed, where such housing is proposed to be located, and how such housing will be removed or converted to an allowed use under OAR 660-03-0130(19) or other statute or rule when project construction is complete;
7. Explain how any proposed off-site facilities for temporary workforce housing for workers constructing the utility facility will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use and will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use; and
8. If your proposal includes the establishment or extension of a sewer system as defined by OAR 660-011-0060(1)(f), how the proposal complies with the provisions of OAR 660-011-0060.

D. For an associated transmission line:

If you are proposing a transmission line that is associated with a utility facility established under ORS 215.283(1)(3), attach a detailed **narrative, plans, and maps**.

The narrative, plans, and maps must:

1. Describe the proposed transmission line and identify the utility services it will provide, whether it's providing any electrical power for public use by sale, and the height of any transmission tower;
2. Demonstrate that the transmission line is necessary by *either* 2.a or 2.b below:
 - a. The entire route of the associated transmission line meets at least one of the following requirements:
 - The associated transmission line is not located on high-value farmland, as defined in ZDO Section 401, or on arable land;
 - The associated transmission line is co-located with an existing transmission line;
 - The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or
 - The associated transmission line is located within an existing right of way for a linear facility, such as a transmission line, road, or railroad, that is located above the surface of the ground; or

- b. An evaluation of reasonable alternatives was conducted and that the entire route of the associated transmission line meets, subject to OAR 660-033-0130(16)(b)(C) and (D), *two or more* of the following criteria, with any associated costs you wish to be considered identified (*Note: Cost alone may not be the only consideration in determining that a utility facility is necessary for public service*):
- Technical and engineering feasibility;
 - The associated transmission line is locationally-dependent because the associated transmission line must cross high-value farmland, as defined in ZDO Section 401, or arable land to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;
 - Lack of an available existing right of way for a linear facility, such as a transmission line, road, or railroad, that is located above the surface of the ground;
 - Public health and safety; or
 - Other requirements of state or federal agencies; and
3. Explain how you will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

FAQs

When is a Utility Facility in EFU District permit required?

[Section 401](#) of the County's Zoning and Development Ordinance (ZDO) allows certain utility facilities and their associated transmission lines in the Exclusive Farm Use (EFU) zoning district, under specific conditions. Utilities necessary for public service (including wetland waste treatment systems, but *not* including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height), and their associated transmission lines, require a Utility Facility in EFU District permit.

What is the permit application process?

Utility Facility in EFU District permits are subject to a "Type II" land use application process, as provided for in [Section 1307](#) of the ZDO. Type II decisions include notice to owners of nearby land, the Community Planning Organization (if active), service providers (sewer, water, fire, etc.), and affected government agencies. If the application is approved, the applicant must comply with any conditions of approval identified in the decision. The Planning Director's decision can be appealed to the County Land Use Hearings Officer.

What is needed for the County to approve a land use permit?

Utility facilities in the EFU District *may* be permitted after an evaluation by the County of applicable standards of the ZDO. The applicant is responsible for providing evidence that their proposal does or can meet those standards. In order to address the standards, the information requested in this application should be as thorough and complete as possible. A permit will only be approved or denied after a complete application is received and reviewed. The County approves an application only if it finds that the proposal meets the standards or can meet the standards with conditions.

How long will it take the County to make a decision about an application?

The County makes every effort to issue a decision on a Type II land use application within 45 days of when we deem the application to be complete. State law generally requires a final County decision on a land use permit application in an urban area within 120 days of the application being deemed complete, and within 150 days for a land use permit in a rural area, although there are some exceptions.

If an application is submitted and then withdrawn, will a refund be given?

Please see Planning & Zoning Fee Schedule under "Other Fees" [here](#). The \$5 Technology Fee is non-refundable.

Who can help answer additional questions?

For questions about the County's land use permit requirements and this application form, contact Planning and Zoning at **503-742-4500** or zoninginfo@clackamas.us. You can also find information online at the Planning and Zoning website: www.clackamas.us/planning.

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Redland Substation Rebuild - UF Application Form

Final Audit Report

2026-07-01

Created:	2026-07-01
By:	Kelsey Trostle (kelsey.trostle@pgn.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAAnQITdCr1BNn1g0CI_Zz6zuFs-qxXBSKX

"Redland Substation Rebuild - UF Application Form" History

-  Document created by Kelsey Trostle (kelsey.trostle@pgn.com)
2026-07-01 - 7:55:49 PM GMT- IP address: 130.41.64.111
-  Document emailed to Laura Bishop (laura.bishop@pgn.com) for signature
2026-07-01 - 7:56:25 PM GMT
-  Email viewed by Laura Bishop (laura.bishop@pgn.com)
2026-07-01 - 7:56:47 PM GMT- IP address: 147.79.224.156
-  Laura Bishop (laura.bishop@pgn.com) has agreed to the terms of use and to do business electronically with PORTLAND GENERAL ELECTRIC CO
2026-07-01 - 7:57:31 PM GMT- IP address: 147.79.224.156
-  Document e-signed by Laura Bishop (laura.bishop@pgn.com)
Signature Date: 2026-07-01 - 7:57:31 PM GMT - Time Source: server- IP address: 147.79.224.156 - Signature Appearance Selected: TYPE
-  Agreement completed.
2026-07-01 - 7:57:31 PM GMT



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www.clackamas.us/planning

STAFF USE ONLY

Staff Initials: _____ File Number: _____

GENERAL LAND USE APPLICATION

Application Fee: \$ _____

APPLICANT INFORMATION

Applicant name: Portland General Electric Company (PGE)	Applicant email: kelsey.trostle@pgn.com	Applicant phone: 503-464-2387	
Applicant mailing address: 121 SW Salmon Street	City: Portland	State: OR	ZIP: 97204
Contact person name (if other than applicant): Winterbrook Planning	Contact person email: ben@winterbrookplanning.com	Contact person phone: 503-827-4422	
Contact person mailing address: 610 SW Alder Street, Suite 810	City: Portland	State: OR	ZIP: 97205

PROPOSAL

Brief description of proposal:
To redevelop an existing substation.

SITE INFORMATION

Site address: 17502 S North End Road	Comprehensive Plan designation: Forest	Zoning district: AG/F
Map and tax lot #: Township: <u>3</u> Range: <u>2</u> Section: <u>12A</u> Tax Lot: <u>200, 202,</u> Township: <u>"</u> Range: <u>"</u> Section: <u>"</u> Tax Lot: <u>203, 300,</u> Township: <u>"</u> Range: <u>"</u> Section: <u>"</u> Tax Lot: <u>301</u>		Land area: 65.23 AC
Adjacent properties under same ownership: Township: _____ Range: _____ Section: _____ Tax Lot: _____ Township: _____ Range: _____ Section: _____ Tax Lot: _____		

Printed names of all property owners: Portland General Electric Company. Laura Bishop, Manager, PGE Property Rights Org.	Signatures of all property owners: <u>Laura Bishop</u> Laura Bishop (Jul 1, 2026 13:24:03 PDT)	Date(s): Jul 1, 2026
I hereby certify that the statements contained herein, along with the evidence submitted, are in all respects true and correct to the best of my knowledge. Applicant signature: <u>[Signature]</u>		Date: 7/1/2026

A. Contact Planning and Zoning

This General Land Use Application form may be used to request County land use approval when Planning and Zoning has no other application form for the type of request.

To determine if you should use this form, and to know what to include with it, contact Planning and Zoning at **503-742-4500** or zoninginfo@clackamas.us. You can also find information online at the Planning and Zoning website: www.clackamas.us/planning.

B. Turn in all of the following:

- ☒ **Complete application:** Respond to all approval criteria relevant to your proposal and include it with this completed application form. Make sure all owners of the subject property sign the first page of this application. Applications without the signatures of *all* property owners are incomplete.
- ☒ **Application fee:** Contact Planning and Zoning for the cost of this application. Payment can be made by cash, by check payable to “Clackamas County”, or by credit/debit card with an additional card processing fee using the [Credit Card Authorization Form](#) available from the Planning and Zoning website. Payment is due when the application is submitted. Refer to the adopted [Fee Schedule](#) for refund policies.
- ☒ **Site plan:** Provide a site plan (also called a plot plan) if relevant to your proposal. A [Site Plan Sample](#) is available from the Planning and Zoning website. The site plan must be accurate and drawn to-scale on paper measuring no larger than 11 inches x 17 inches. The site plan must illustrate all of the following (when applicable):
 - Lot lines, lot/parcel numbers, and acreage/square footage of lots;
 - Contiguous properties under the same ownership;
 - All existing and proposed structures, fences, roads, driveways, parking areas, and easements, each with identifying labels and dimensions;
 - Setbacks of all structures from lot lines and easements;
 - Significant natural features (rivers, streams, wetlands, slopes of 20% or greater, geologic hazards, mature trees or forested areas, drainage areas, etc.); and
 - Location of utilities, wells, and all onsite wastewater treatment facilities (e.g., septic tanks, septic drainfield areas, replacement drainfield areas, drywells).
- ☒ **Any additional information relevant to the application type**

Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at 503-742-4545 or drenhard@clackamas.us.

503-742-4545: ¿Traducción e interpretación? | Требуется ли вам устный или письменный перевод?
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PGE Redland Substation



Prepared by:
Winterbrook Planning

In Collaboration With:
AECOM

Submitted July 7, 2026

Applicant	Portland General Electric (PGE) 121 SW Salmon Street Portland, OR 97204
Property Owners:	Portland General Electric; Lambert Jonas & Melissa; and Teters Chad Neil & Crystal Marie.
Applicant Representative:	Ben Schonberger, AICP Winterbrook Planning 610 SW Alder Street, Suite 810 Portland, Oregon 97205
Location(s):	17502 S North End Rd; 19255 S Henrici Rd; 19035 S Henrici Rd; 19031 S Henrici Rd; The property immediately west of 19031 S Henrici Rd; and The S Henrici Road ROW
Property ID(s):	T3S R2E Section 12A, Tax Lots 200, 202, 203, 300, 301, and the S Henrici Road ROW.
Zoning Designation:	Ag/Forest (AG/F) District
Comprehensive Plan Designation:	Forest (F)
Proposal:	Improve and upgrade existing utility facility necessary for public service. Upgrades include new substation equipment, replacement substation fencing, driveway improvements, transmission line work, and subsurface distribution line work.
Requests:	Type II – Utility Facility

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Narrative Description

Proposal

The applicant proposes to improve and upgrade an existing substation and associated development. The rationale for the project is to address increased needs for power capacity in the region and to improve infrastructure resiliency. Proposed development includes driveway resurfacing and extension, replacement and upgrades to substation equipment, replacement of fencing around the substation, replacing and upgrading transmission lines to the substation, and installation of subsurface distribution lines and associated structures. PGE has carefully planned and phased the construction process to ensure that construction of the facility does not disrupt service to the public and to mitigate safety risks.

Substations take electrical power from high-voltage transmission lines and transform it, using step-down transformers, to reduce the voltage. That stepped-down power then transmits into the local electrical distribution system, providing electricity to homes and businesses. Substations also manage disruptions and monitor the overall safety of the power supply. If not for the stepping-down function substations offer, most consumers would not be able to use the high-voltage energy created power-generating facilities.

Proposed development is on the site of an existing substation in the Redland area of Clackamas County, east of Oregon City. The original substation use and its development was approved by Clackamas County in 1973 (casefile CU 51-73) and then constructed. Bonneville Power Authority transmission line infrastructure runs east-west, adjacent to and south of this substation, but these facilities are not part of this land use request.



Figure 1. Aerial Photo of Redland Substation

As part of the substation redevelopment, this project includes upgrading associated transmission lines and a subsurface “duct bank” with distribution lines from the substation down the hill to the east, connecting with facilities in S. Henrici Road. Because the area where new development associated with the substation is already cleared of vegetation, no tree removal is necessary for proposed development. Disturbed areas of soil will be reseeded after construction as necessary.

Land Use History and Actions

The substation facility, approximately 1.2 acres in size and enclosed with security fencing, was originally authorized via Clackamas County conditional use (CU) permit CU-51-73, dated August 20, 1973 (Attachment E). This permit was issued by the County Planning Commission and authorized a request for an “electrical distribution substation” on the basis that “a need has been shown and evidence has been given that a public benefit would be derived in approval of the request.” The authorization states that the substation was subject to subsequent review by the County Design Review Board. The permit does not otherwise appear to have set out any conditions of approval or other development limitations. When this permit was issued, the subject property was designated as “Redland Area RA-1, Rural (Agricultural) Single Family Residential.” The property has since been both rezoned and redesignated.

The substation and its associated development is a “utility facility” per the current County code (ZDO 202, Definitions), because it is part of a system that provides for the transmission and delivery of power. Lines from the substation, whether they are above or below ground, are also a “utility line” per the definitions section of the ZDO, because they are conduit, wire, and/or linear conveyance, including support poles. A utility facility is a permitted use in the AG/F zone, according to the recently approved legislative amendment (Clackamas County Planning File ZDO-293). Among other things, these legislative amendments to the code explicitly makes County land use regulations consistent with state laws for mixed farm/forest zones (ZDO 407) and for related regulations in exclusive farm use zones (ZDO 401).

In the pre-application conference on December 16, 2025, County staff suggested the proposal could be a modification of 1973 conditional use permit, or alternatively, a request for a new conditional use review. After the applicant provided additional details about the scope of the project, the County reviewed its AG/F zone regulations, and the new legislative amendments were considered, County staff subsequently determined that the application could be reviewed as a “utility facility necessary for public service.” That use in this zone requires a Type II land use review subject to state-specified criteria that are set out in Oregon Administrative Rules 660-033-0130. County review for compliance with these state standards is the primary land use action on this proposal.

Subject Property

The property with the existing substation is located at 17502 S North End Road (also identified as T3S R2E Section 12A, Tax Lots 301. Portland General Electric owns the property, which is approximately 7.47 acres in size. This property is currently described in a Warranty Deed dated August 3, 1973, recorded in Clackamas County Deed Volume 73, Page 27372 (Attachment F).

Access to the substation site is from the S North End Road / S Grasle Road intersection via a 30-foot-wide non-exclusive perpetual roadway easement located along the western property line. This access is described in an easement document dated August 3, 1973, and recorded in Clackamas County Deed Volume 73, Page 27373 (Attachment G). Tax lot 301 is referred to as "the substation site" throughout this narrative document.

In addition, this application contains a request for work that is associated with the substation upgrades and rehabilitation which will occur on multiple other properties that have different ownership. These include:

1. 19255 S Henrici Road (also identified as T3S R2E Section 12A, Tax Lots 300), containing approximately 47.46 acres, under ownership by 'Lambert Jonas & Melissa';
2. 19035 S Henrici Road (also identified as T3S R2E Section 12A, Tax Lots 200), containing approximately 7.78 acres, under ownership by 'Teters Chad Neil & Crystal Marie';
3. 19031 S Henrici Road (also identified as T3S R2E Section 12A, Tax Lots 202), containing approximately 0.60 acres, under ownership by 'Teters Chad Neil & Crystal Marie'; and
4. Immediately west of 19031 S Henrici Road (also identified as T3S R2E Section 12A, Tax Lots 203), containing approximately 1.92 acres, under ownership by 'Teters Chad Neil & Crystal Marie'.

The five properties described above are collectively referred to as the "project tract" and total approximately 65.23 acres in size. Additional work is proposed within the S Henrici Road right-of-way (ROW) along the frontage of this project tract. Excluding the work in the ROW, proposed development is very small – it only affects a 3.3-acre portion of the project tract.

All development proposed is within the County's Ag/Forest District (AG/F), a mixed agriculture and forest zone. The subject properties are designated "Forest" on the County's comprehensive plan. The site is roughly equidistant from Redland, an unincorporated Clackamas County community, and Oregon City's urban growth boundary. The larger project area contains a substation, rural residential home sites, large BPA and PGE transmission lines, and a likely 15.5-acre timber harvest production area. It also contains

natural features that include low-lying shrubs and grasses, stands of mature trees, and steep slopes. According to review of the Oregon Department of State Lands (DSL) Statewide Wetland Inventory (SWI) and the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL) Viewer, Flood Insurance Rate Map (FIRM) Panel 41005C0285D effective June 17, 2008, the project tract appears to contain wetland and Zone A flood hazard areas associated with Abernethy Creek. However, these sensitive resources are far from proposed work areas.

Geologic Features

There are steep slopes present adjacent to and within the proposed work areas, especially between the substation and S. Henrici Road, to the southeast of the existing fenced area. The applicant commissioned an Engineering Geology Evaluation Memo prepared by GRI (Attachment D), that shows the proposed work area, mainly where the duct bank extends from the substation to S. Henrici Road, has average slopes of 20 percent trending downhill. In the memo, the geologist provides best practice recommendations to use during construction. The report concludes that the proposed work in this area will not materially alter existing conditions.

Surrounding Area

According to the DSL SWI map, the closest wetland appears to be an Abernethy Creek tributary that is located approximately 220 feet to the southwest of the subject property and classified as a riverine wetland. According to the FIRM Panel 41005C0285D effective June 17, 2008, the closest flood area is approximately 915 feet to the southwest of the subject property and appears to be associated with the primary channel of Abernethy Creek. According to the Oregon Department of Land Conservation and Development (DLCD) Hazards Reporter map, nearly the entire area south of S North End Road appears to be subject to varying degrees of landslide susceptibility.

Many surrounding properties contain transmission line corridors and associated infrastructure. Property to the north and south are located within the Rural Residential Farm Forest 5-Acre (RRFF-5) zone and the Rural comprehensive plan designation. These properties are primarily zoned to allow for small acreage residential sites as well as some agricultural and forestry practices. In reviewing the Clackamas County map application (CMap), these properties range in size from approximately 0.7 acres to 10.3 acres and appear to be developed for rural residential uses. Additionally, surrounding properties located within the AG/F zone and the Forest comprehensive plan designation and are primarily zoned to allow for and protect agricultural and forestry practices. AG/F zoned properties appear to be primarily developed for rural residential uses with some hay crop and timber uses. Specifically, approximately three acres of the adjacent properties to the west appear to be in use for hay crop production, while a timber harvest operation appears

to be occurring to the south and east, on 8.3 acre and 10.9 acre parcels. These and potentially other properties can be reasonably assumed to engage in agricultural and forestry practices. Common and accepted agricultural practices include but are not limited to tilling, planting, spraying, grazing, livestock, and harvesting, and product transport activities. Common and accepted forestry practices may include but are not limited to planting, spraying, thinning, harvesting, and product transport activities.

Applicable Criteria

The following provisions of the Oregon Revised Statutes (ORS), the Oregon Administrative Rules (OAR), and the Clackamas County Zoning and Development Ordinances (ZDO) as recently amended are applicable to this application package and addressed in this narrative:

Oregon Revised Statutes (ORS)

- ORS 215.274 Associated transmission lines necessary for public service; criteria; mitigating impact of facility.
- ORS 215.275 Utility facilities necessary for public service; criteria; rules; mitigating impact of facility.
- ORS 215.276 Required consultation for transmission lines to be located on high-value farmland.

Oregon Administrative Rules (OAR)

- OAR 660-033-0130 Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses

Clackamas County Zoning and Development Ordinance (ZDO)

ZDO Section 400: Natural Resource Districts

- 401 Exclusive Farm Use District (EFU)
- 407 AG/Forest District (AG/F)

ZDO Section 1300: Administrative Action Review Process

- 1307 Procedures

Supplemental documentation for the application is included as follows:

- Site Plan, Attachment A
- Grading Plan, Attachment B
- Stormwater Memo, Attachment C
- Geologic Study, Attachment D
- Authorization CU 51-73, Attachment E
- Property Deed, Attachment F
- Access Easement, Attachment G
- Landowner Authorization Memo, Attachment H
- Pre-Application Conference Summary, Attachment I

Code Responses

Oregon Revised Statutes (ORS)

ORS 215.274 Associated transmission lines necessary for public service; criteria; mitigating impact of facility.

(1) As used in this section, “associated transmission line” has the meaning given that term in ORS 469.300.

(2) An associated transmission line is necessary for public service if an applicant for approval under ORS 215.213 (1)(c)(B) or 215.283 (1)(c)(B) demonstrates to the governing body of a county or its designee that the associated transmission line meets:

(a) At least one of the requirements listed in subsection (3) of this section; or

(b) The requirements described in subsection (4) of this section.

(3) The governing body of a county or its designee shall approve an application under this section if an applicant demonstrates that the entire route of the associated transmission line meets at least one of the following requirements:

(a) The associated transmission line is not located on high-value farmland, as defined in ORS 195.300, or on arable land;

(b) The associated transmission line is co-located with an existing transmission line;

(c) The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or

(d) The associated transmission line is located within an existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground.

(4)(a) Except as provided in subsection (3) of this section, the governing body of a county or its designee shall approve an application under this section if, after an evaluation of reasonable alternatives, the applicant demonstrates that the entire route of the associated transmission line meets, subject to paragraphs (b) and (c) of this subsection, two or more of the following factors: [...]

Response: This proposal includes new transmission line structures leading to the renovated substation, as shown on project drawings. Pursuant to ORS 469.300(3), “Associated transmission lines” means new transmission lines constructed to connect an energy facility to the first point of junction of such transmission line or lines with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid.” This proposal includes new transmission lines as described in ORS 215.283 (1)(c)(B) and in ORS 469.300(3) to ensure a safe and functional energy transport between an energy facility, the redeveloped substation, and the overall Northwest Power Grid. Therefore, these elements of the project are subject to ORS 215.274 above.

No new transmission line routes are proposed. Rather, the following new structures are proposed, all within established transmission line areas:

- Seven permanent towers ranging from 38 to 66 feet in height on the property located at 17502 S North End Road, between the PGE transmission easement area and the substation.
- Two new 50-foot-tall transmission poles within the S Henrici Road ROW.
- One 50-foot-tall transmission pole replacement within the S Henrici Road ROW.
- One 45-foot-tall temporary transmission pole on the property located at 17502 S North End Road. This pole will be placed 45 feet to the east of the substation.

See the site plan (Attachment A) for a detailed depiction of the new structures. All new proposed transmission structures would be co-located with an existing transmission line use as described in ORS 215.274(3)(b). As such, compliance with ORS 215.274(4) is not applicable. The relevant criteria listed above are met.

ORS 215.275 Utility facilities necessary for public service; criteria; rules; mitigating impact of facility.

(1) A utility facility established under ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) is necessary for public service if the facility must be sited in an exclusive farm use zone in order to provide the service.

(2) To demonstrate that a utility facility is necessary, an applicant for approval under ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) must show that reasonable alternatives have been considered and that the facility must be sited in an exclusive farm use zone due to one or more of the following factors:

(a) Technical and engineering feasibility;

(b) The proposed facility is locationally dependent. A utility facility is locationally dependent if it must cross land in one or more areas zoned for exclusive farm use in order to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;

(c) Lack of available urban and nonresource lands;

(d) Availability of existing rights of way;

(e) Public health and safety; and

(f) Other requirements of state or federal agencies.

Response: The applicant proposes to upgrade the substation that has existed on the property located at 17502 S North End Road since 1973 to improve the capacity deficiency currently present at this substation. The primary reason the facility is necessary, among the options listed in this regulation, is (ii), that the facility is locationally dependent. A substation has been at this site and operating for more than 50 years. The transmission of power to this substation is a fundamental element of this project and all the associated wires and poles that support this are fixed in space around the longstanding substation use. Relocating the existing substation to another property, while subsequently relocating all of the connecting powerline infrastructure leading to it and from it, is plainly infeasible and would have vastly greater impacts on other, surrounding resource lands.

Once the upgrades are installed and operational, local users will likely experience fewer power supply disruptions. In short, it is technically infeasible to establish substation upgrades at any location other than the existing substation site, which is on AG/F zoned property, as shown in Attachment A. The utility facility is therefore necessary for public service, consistent with the definition above.

(3) Costs associated with any of the factors listed in subsection (2) of this section may be considered, but cost alone may not be the only consideration in determining that a utility facility is necessary for public service. Land costs shall not be included when considering alternative locations for substantially similar utility facilities. The Land Conservation and Development Commission shall determine by rule how land costs may be considered when evaluating the siting of utility facilities that are not substantially similar.

Response: The primary reason for rehabilitating the substation and adding new supporting poles and wires leading to and from it at this location is not cost; it is because the facility is locationally dependent. An approved utility facility (the substation) is at the center of this project, and existing power lines lead into it and extend from it. There is no feasible way to bridge the gap between existing fixed facilities that does not occur on the existing Redland Substation property, which happens to be zoned AG/F. At the same time, any far-fetched alternative that requires moving the substation and all its associated lines would be vastly more expensive. Any alternative location would still affect resource land, potentially more of an effect. The critical factor is not the cost of land, rather, it is that this land is at a particular location that serves the region. In short, the overwhelmingly important factor in the necessity of siting the substation and associated development at this location is the geographically specific need to have it replace and add to existing infrastructure at the same location.

(4) The owner of a utility facility approved under ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) shall be responsible for restoring, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in this section shall prevent the owner of the utility facility from requiring a bond or other security from a contractor or otherwise imposing on a contractor the responsibility for restoration.

Response: No portion of the proposed work area is currently in agricultural use. Proposed upgrades would not damage or disturb any agriculture land or associated improvements either during or after development. This criterion therefore does not apply. Nonetheless, all disturbed land that is not developed is proposed to be re-graded to match existing conditions, if applicable, and seeded with a native erosion control mix to promote hardy, low-maintenance vegetative coverage.

(5) The governing body of the county or its designee shall impose clear and objective conditions on an application for utility facility siting under ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) to mitigate and minimize the impacts of the proposed facility, if any, on surrounding

lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmlands.

Response: Based on review of the 2026 Aerial Imagery within CMap, the closest farm use could be hay crop production on the properties to the west. This is located with the AG/F zone at 17300 and 17454 S North End Road, approximately 2.7 acres in size altogether. Otherwise, the AG/F zoned properties surrounding the substation site appear to be largely occupied by rural residential uses, timber harvest operations, and large transmission line corridors. No other potential farm uses on agricultural lands were readily identified within one-half mile of the substation site.

Provided the properties to the west contain a hay farm operation, then farm practices such as soil tilling, hay planting and spraying, crop harvesting, and hay product transport could reasonably be expected to occur. The proposed upgrades are not expected to impact these practices in any way. Replacing equipment within a substation that is the site of an existing substation does not affect farming. Likewise, establishing replacement poles or new poles for power line infrastructure does not affect farm practices. Any hypothetical impact on these adjacent properties would be reduced by an existing, 90-foot vegetative buffer between the substation and the possible farm uses on the properties to the west. No conditions to minimize impacts are necessary or anticipated.

(6) The provisions of subsections (2) to (5) of this section do not apply to interstate natural gas pipelines and associated facilities authorized by and subject to regulation by the Federal Energy Regulatory Commission.

Response: The proposal does not include interstate natural gas pipelines and is therefore subject to all requirements of ORS 215.275.

ORS 215.276 Required consultation for transmission lines to be located on high-value farmland.

(1) As used in this section:

(a) "Consult" means to make an effort to contact for purpose of notifying the record owner of the opportunity to meet.

(b) "High-value farmland" has the meaning given that term in ORS 195.300.

(c) "Transmission line" means a linear utility facility by which a utility provider transfers the utility product in bulk from a point of origin or generation, or between transfer stations, to the point at which the utility product is transferred to distribution lines for delivery to end users.

(2) If the criteria described in ORS 215.275 for siting a utility facility on land zoned for exclusive farm use are met for a utility facility that is a transmission line, or if the criteria described in ORS 215.274 for siting an associated transmission line are met, the utility provider shall, after the route is approved by the siting authorities and before construction

of the transmission line begins, consult the record owner of high-value farmland in the planned route for the purpose of locating and constructing the transmission line in a manner that minimizes the impact on farming operations on high-value farmland. If the record owner does not respond within two weeks after the first documented effort to consult the record owner, the utility provider shall notify the record owner by certified mail of the opportunity to consult. If the record owner does not respond within two weeks after the certified mail is sent, the utility provider has satisfied the provider's obligation to consult.

(3) The requirement to consult under this section is in addition to and not in lieu of any other legally required consultation process.

Response: The proposed transmission lines represent a linear utility facility by which PGE will transfer energy between the point of generation, transfer stations, and to the surrounding distribution system, and as such, would be subject to the above requirement to consult with property owners. However, all transmission line structures are proposed to be established either within S Henrici Road ROW, or on the PGE-owned subject property, Tax Lot 301. Because the applicant is the owner of the property, consultation, defined as “to make an effort to contact for purpose of notifying the record owner of the opportunity to meet,” is effectively meaningless. As applicant, PGE is fully aware of the project and its presence on this property. Because the subject properties are not used for “farming operations,” and the substation itself has been in public utility use for more than 50 years, there are no impacts to farmland that need to be minimized. If the County deems it necessary for PGE to send itself a letter about minimizing impacts, the applicant can do so, but otherwise, this standard is not applicable to the specific circumstances of the project.

Oregon Administrative Rule (OAR)

OAR 660-033-0130 Minimum Standards Applicable to the Schedule of Permitted and Conditional Uses

The following requirements apply to uses specified, and as listed in the table adopted by OAR 660-033-0120. For each section of this rule, the corresponding section number is shown in the table. Where no numerical reference is indicated on the table, this rule does not specify any minimum review or approval criteria. Counties may include procedures and conditions in addition to those listed in the table, as authorized by law. [...]

(16)(a) A utility facility established under ORS 215.213(1)(c) or 215.283(1)(c) is necessary for public service if the facility must be sited in an exclusive farm use zone in order to provide the service. To demonstrate that a utility facility is necessary, an applicant must:
(A) Show that reasonable alternatives have been considered and that the facility must be sited in an exclusive farm use zone due to one or more of the following factors:

(i) Technical and engineering feasibility;

(ii) The proposed facility is locationally-dependent. A utility facility is locationally-dependent if it must cross land in one or more areas zoned for exclusive farm use in order

to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;

(iii) Lack of available urban and nonresource lands;

(iv) Availability of existing rights of way;

(v) Public health and safety; and

(vi) Other requirements of state and federal agencies.

(B) Costs associated with any of the factors listed in paragraph (A) of this subsection may be considered, but cost alone may not be the only consideration in determining that a utility facility is necessary for public service. Land costs shall not be included when considering alternative locations for substantially similar utility facilities and the siting of utility facilities that are not substantially similar.

Response: The above criteria directly implement the requirements of ORS 215.275(1) through (3). Compliance with that section was addressed above in responses to those sections of the ORS. Rather than reprinting them, the findings of that section are adopted here by reference.

(C) The owner of a utility facility approved under this section shall be responsible for restoring, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in this paragraph shall prevent the owner of the utility facility from requiring a bond or other security from a contractor or otherwise imposing on a contractor the responsibility for restoration.

Response: The above criteria directly implement the requirements of ORS 215.275(4), compliance with which is already addressed earlier in this document. Rather than reprinting them, the findings of that section are adopted here by reference.

(D) The governing body of the county or its designee shall impose clear and objective conditions on an application for utility facility siting to mitigate and minimize the impacts of the proposed facility, if any, on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on surrounding farmlands.

Response: The above criteria directly implement the requirements of ORS 215.275(5), compliance with which is already addressed earlier in this document. Rather than reprinting them, the findings of that section are adopted here by reference.

(E) Utility facilities necessary for public service may include on-site and off-site facilities for temporary workforce housing for workers constructing a utility facility. Such facilities must be removed or converted to an allowed use under OAR 660-033-0130(19) or other statute or rule when project construction is complete. Off-site facilities allowed under this paragraph are subject to 660-033-0130(5). Temporary workforce housing facilities not

included in the initial approval may be considered through a minor amendment request. A minor amendment request shall have no effect on the original approval.

(F) In addition to the provisions of paragraphs (A) to (D) of this subsection, the establishment or extension of a sewer system as defined by OAR 660-011-0060(1)(f) in an exclusive farm use zone shall be subject to the provisions of OAR 660-011-0060.

Response: No temporary workforce housing developments or sewer system improvements are proposed. The above criteria do not apply.

(G) The provisions of paragraphs (A) to (D) of this subsection do not apply to interstate natural gas pipelines and associated facilities authorized by and subject to regulation by the Federal Energy Regulatory Commission.

Response: The above criteria directly implement the requirements of ORS 215.275(6), compliance with which is already addressed earlier in this document. Those findings are addressed here by reference.

(b) An associated transmission line is necessary for public service and shall be approved by the governing body of a county or its designee if an applicant for approval under ORS 215.213(1)(c) or 215.283(1)(c) demonstrates to the governing body of a county or its designee that the associated transmission line meets either the requirements of paragraph (A) of this subsection or the requirements of paragraph (B) of this subsection.

(A) An applicant demonstrates that the entire route of the associated transmission line meets at least one of the following requirements:

(i) The associated transmission line is not located on high-value farmland, as defined in ORS 195.300, or on arable land;

(ii) The associated transmission line is co-located with an existing transmission line;

(iii) The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or

(iv) The associated transmission line is located within an existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground.

(B) After an evaluation of reasonable alternatives, an applicant demonstrates that the entire route of the associated transmission line meets, subject to paragraphs (C) and (D) of this subsection, two or more of the following criteria:

(i) Technical and engineering feasibility;

(ii) The associated transmission line is locationally-dependent because the associated transmission line must cross high-value farmland, as defined in ORS 195.300, or arable land to achieve a reasonably direct route or to meet unique geographical needs that cannot be satisfied on other lands;

(iii) Lack of an available existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground;

(iv) Public health and safety; or

(v) Other requirements of state or federal agencies.

(C) As pertains to paragraph (B), the applicant shall present findings to the governing body of the county or its designee on how the applicant will mitigate and minimize the impacts, if any, of the associated transmission line on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on the surrounding farmland.

(D) The governing body of a county or its designee may consider costs associated with any of the factors listed in paragraph (B) of this subsection, but consideration of cost may not be the only consideration in determining whether the associated transmission line is necessary for public service.

Response: The above criteria directly implement the requirements of ORS 215.274, compliance with which is already addressed earlier in this document. Rather than reprinting them, the findings of that section are adopted here by reference. The above criteria are met.

Clackamas County Zoning and Development Ordinance (ZDO)

ZDO Section 400: Natural Resource Districts

407 AG/Forest District (AG/F)

407.02 APPLICABILITY

Section 407 applies to land in the Ag/Forest (AG/F) District.

407.03 USES PERMITTED

Uses permitted in the AG/F District are those allowed in the EFU District, subject to Section 401, Exclusive Farm Use District (EFU), and those allowed in the TBR District, subject to Section 406, Timber District (TBR). However, the following limitations apply. [...]

Response: The proposed substation and all the existing and proposed development requested in this application are within the County's AG/F district. Uses permitted in the AG/F district are those allowed in the EFU district **and** those allowed in the TBR District, per the regulation above. The most directly applicable use related to the substation development is a "utility facility" as defined in ZDO 202. Associated power lines leading to and from the substation are "utility lines" which are also defined in ZDO 202. A utility facility necessary for public use, including transmission lines, is a permitted use in the EFU district, according to Table 401-1. The development is still subject to the Type II review discussed previously for compliance with the relevant OAR. ZDO 407 therefore allows the proposed development as a permitted use, because it refers to the EFU District and its use table, which includes utility facilities.

B. If a use, other than a dwelling, is allowed by both Section 401 and Section 406, the use shall comply with the applicable standards of both sections. If there is a conflict between a standard in Section 401 and a standard in Section 406, to the

extent that it is not possible for a use to comply with both, the most restrictive standard shall apply.

Response: The proposed use is a utility facility, which is a permitted use listed in Section 401. Therefore, this use is also allowed in the AG/F District. The standards of Section 401 are therefore applicable to this utility facility use. Specifically, these include the specific use standards for utility facilities in ZDO 401.05(G)(2) and the dimensional standards of ZDO 401.07. Both of those sections are addressed in findings below for Section 401.

401 Exclusive Farm Use District (EFU)

401.04 USES PERMITTED

Uses permitted in the EFU District are listed in Table 401-1, Permitted Uses in the EFU District.

- A. As used in Table 401-1: [...]*
 - 6. “P” means the use is a primary use. [...]*
 - 8. “Type II” means the use requires review of a Type II application, pursuant to Section 1307, Procedures. [...]*
- B. Permitted uses are subject to the applicable provisions of Subsection 401.07; Section 1000, Development Standards; and Section 1100, Development Review Process. However, uses listed in ORS 215.283(1) are not subject to Section 1000.*

Table 401-01: Permitted Uses in the EFU District

[...]

<i>HV</i>	<i>LV</i>	<i>Utility/Solid Waste Disposal Facilities</i>	<i>Subject To</i>
<i>P, Type II</i>	<i>P, Type II</i>	<i>Utility facilities necessary for public service, including associated transmission lines as defined in ORS 469.300 and wetland waste treatment systems but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height. This category includes wireless telecommunication facilities not otherwise listed in Table 401-1, Permitted Uses in the EFU District.</i>	<i>401.05(G)</i>

[...]

Response: This application is a request to improve the existing substation, including installing transmission and distribution lines. No utility service lines, power generating facilities, or transmission towers over 200 feet in height are proposed. Substation and transmission line facilities transform energy provided by generation facilities into power that can then be distributed to and consumed by end users. As such, the most directly applicable use category is "utility facility" and "utility facilities necessary for public service"

as described in ZDO Sections 202 and Section 401.04 and ORS 215.283(1)(c)(A) and (B). Table 401-01 shows the use is a permitted use in the district, subject to ZDO 401.05(G).

Following subsection (B) above, utility facilities necessary for public service are not subject to ZDO Section 1000 *Development Standards* because the proposed use is a “use listed in ORS 215.283(1).” Specifically, it is a use that meets the description in ORS 215.283(1)(c): “Utility facilities necessary for public service, including wetland waste treatment systems but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height.” As such, ZDO Section 1000 does not apply.

401.05 APPROVAL CRITERIA FOR SPECIFIC USES

The following criteria apply to some of the uses listed in Table 401-1, Permitted Uses in the EFU District. The applicability of a specific criterion to a listed use is established by Table 401-1. [...]

G. Utility/Solid Waste Disposal Facility Uses [...]

- 2. A utility facility necessary for public service may be established as provided in OAR 660-033-0130(16)(a) and ORS 215.275 and 215.276, or, if the utility facility is an associated transmission line, as provided in OAR 660-033-0130(16)(b) and ORS 215.274 and 215.276. [...]*

Response: According to the above Natural Resource District criteria, this application is subject to the provisions of ORS 215.274 through ORS 215.276, OAR 660-033-0130(16), and ZDO 401.07, compliance with which is addressed elsewhere in these findings.

401.07 DIMENSIONAL STANDARDS

[...]

Minimum Front Setback: 30 feet.

Minimum Side Setback: 10 feet.

Minimum Rear Setback: 30 feet; however, accessory buildings shall have a minimum rear setback of 10 feet. [...]

Response: As shown on the included plans, all structural development associated with the substation is proposed to be no closer than 94 feet to the nearest property line. This far exceeds all the minimum setbacks listed above, and therefore the standard is met.

ZDO Section 1300: Administrative Action Review Process

1307 Procedures

1307.07 APPLICATION SUBMITTAL AND COMPLETENESS REVIEW

- A. Initiation of Applications: Type I, I-H, II, II-E, II-S, and III land use permit applications may be initiated by:*
 - 1. An owner of each tax lot that comprises the subject property;*

2. *The contract purchaser of the subject property, if the application is accompanied by proof of the purchaser's status as such;*
3. *The agent of the owner or contract purchaser of the subject property, if the application is duly authorized in writing by the owner or the contract purchaser, and accompanied by proof of the agent's authority; or [...]*

Response: PGE owns the tax lot where the substation is located and is the applicant. A landowner authorization memo is included with this application package (Attachment H) demonstrating that PGE has sufficient authorization over the subject properties.

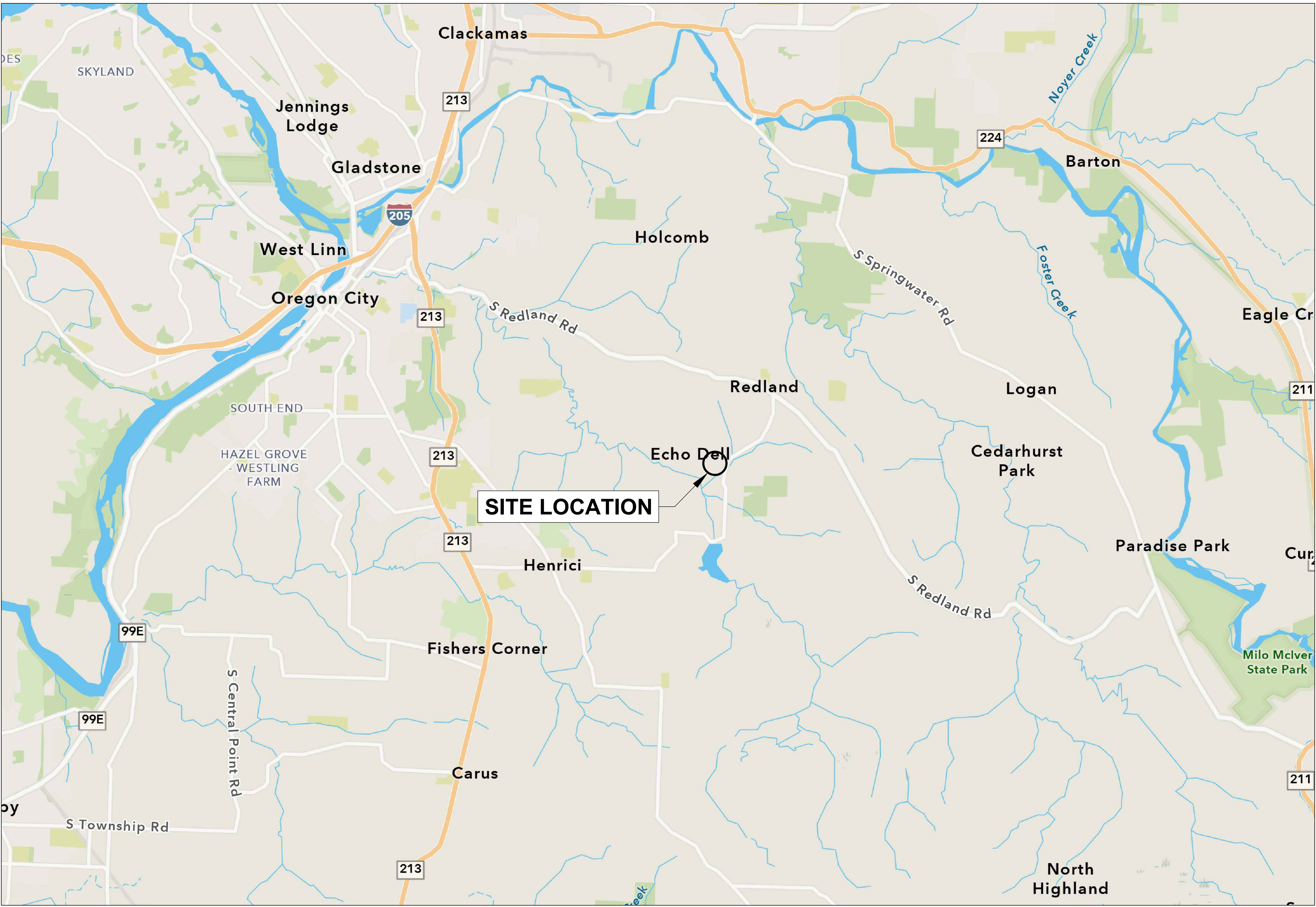
C. Application Submittal: Type I, I-H, II, II-E, II-S, and III land use permit applications are subject to the following submittal requirements:

1. *The following shall be submitted for an application to be complete:*
 - a. *A completed application form, such form to be prescribed by the Planning Director, and containing, at a minimum, the following information: [...]*
 - b. *A completed supplemental application form, such form to be prescribed by the Planning Director, or a written statement addressing each applicable approval criterion and standard and each item on the supplemental application form;*
 - c. *An accurate site plan drawn to scale on eight-and-one-half-inch by 11-inch or eight-and-one-half-inch by 14-inch paper, showing the subject property and proposal;*
 - d. *Any additional information required under this Ordinance for the specific land use permit sought; and*
 - e. *Payment of the applicable fee, pursuant to Subsection 1307.17.*

Response: Completed application forms, this narrative document, a site plan, all other supplemental materials (Attachments B through I) are included with the application package. The consolidated application fee payment has been submitted or will be submitted upon receipt of the invoice from County staff.

Conclusion

The proposed upgrades to the existing substation, and the poles and wires that are associated with it, will improve an existing facility that has been in this location for more than 50 years. The changes represent an investment in the electric grid that will increase reliability and safety for consumers by modernizing equipment. The site on which these improvements are proposed is appropriate for the use and well-suited for the proposed development. The applicant believes that this proposal has met all applicable criteria as demonstrated in the criteria response section above. The applicant appreciates the assistance staff has provided thus far and looks forward to coordinating during the review.



PRELIMINARY

0 1500' 3000'

AS SHOWN ON THIS MAP, ALL MEASUREMENTS ARE IN FEET AND DECIMALS THEREOF. THIS MAP IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF AECOM.

N

DATE	07/06/2026
VERSION	1.5
DESIGNED BY	HH
DRAWN BY	HH
CHECKED BY	GS
PROJECT NO.	60782576
SCALE	1" = 3000'
DRAWN FOR	PERMIT SET
PROJ. ENG.	GS
PROJ. MGR.	GS
APPROVED	

PORTLAND GENERAL ELECTRIC
REDLAND SUBSTATION REBUILD
VICINITY MAP

PGE

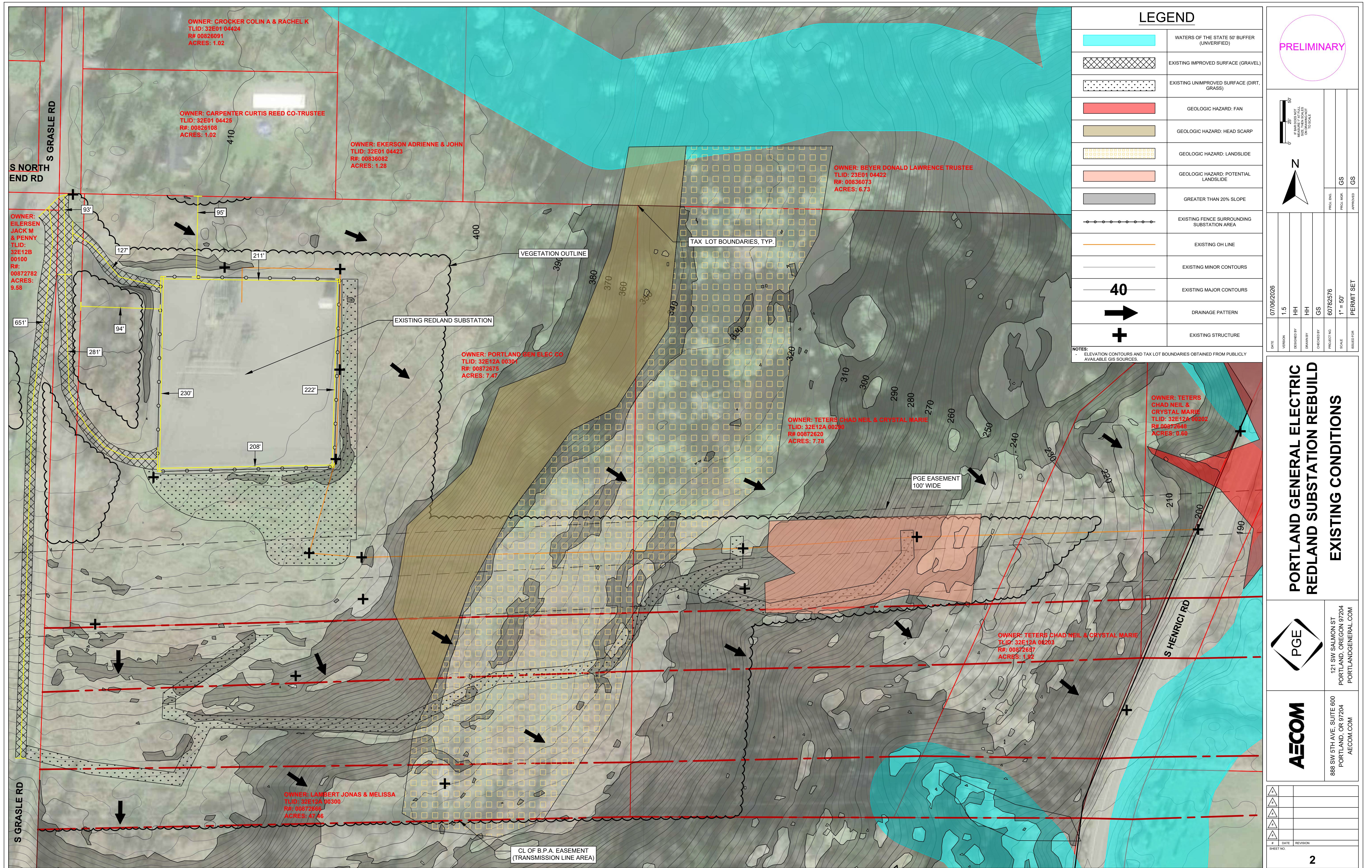
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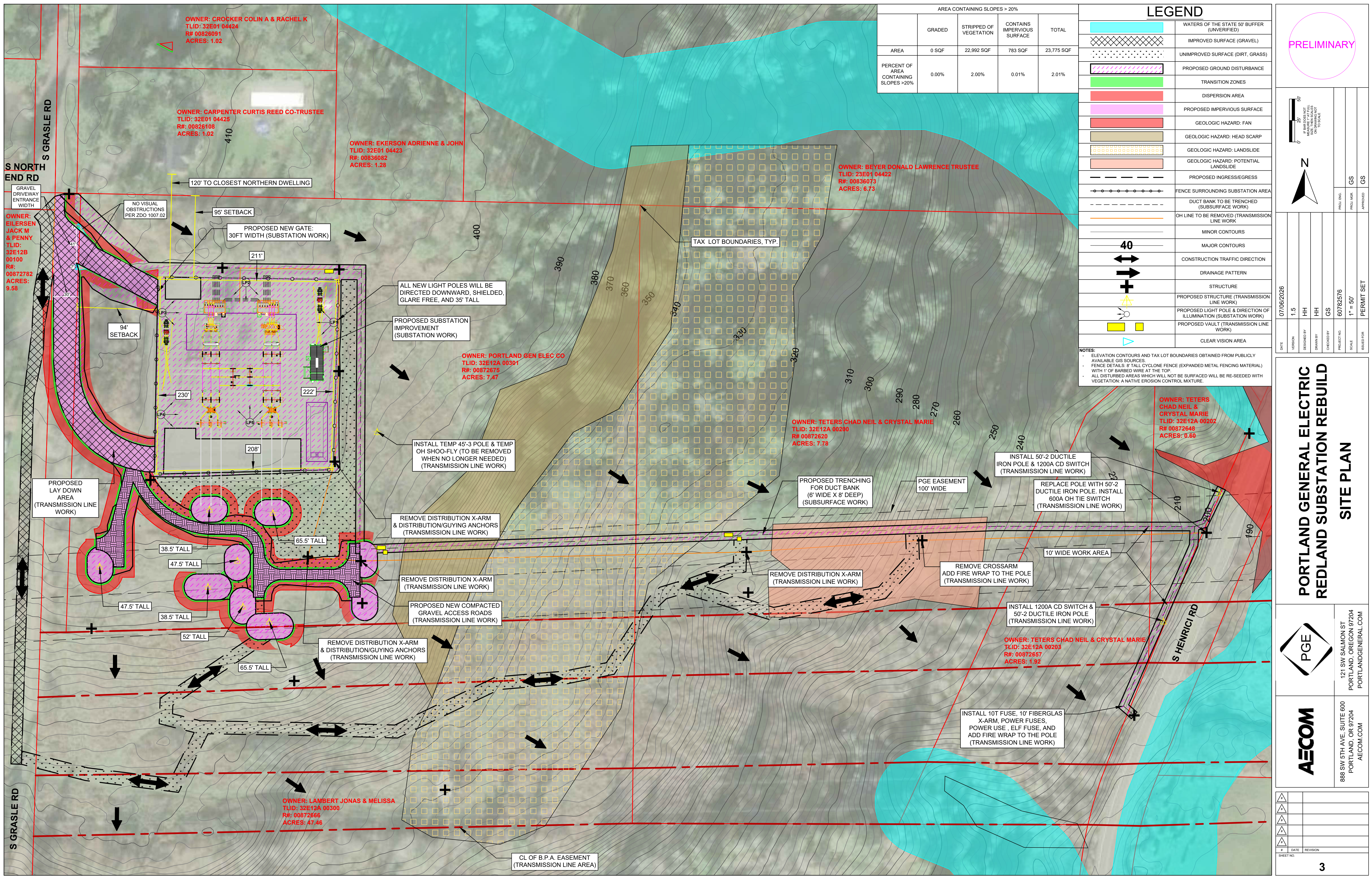
AECOM

888 SW 5TH AVE, SUITE 600
PORTLAND, OR 97204
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AECOM
888 SW 5th Ave, Suite 600
Portland, OR 97204
aecom.com

Project name:
Redland Substation Rebuild

Project ref:
Clackamas County ZPAC0133-25

From:
Chloe Bowman, EIT, AECOM
Meredith Cote, PE, AECOM
Greg Swenson, AECOM

Date:
July 2, 2026

To:
Elliott Steck, Project Manager
Portland General Electric
121 SW Salmon Street – 1WTC0401
Portland, Oregon 97204
Elliott.Steck@pgn.com

Memo

Subject: Surface Water Management

1. Project Data

Applicant:	Portland General Electric Company (PGE)
Address:	Redland Substation is located at 17502 S. North End Road in unincorporated Oregon City, Clackamas County, Oregon, see Figure 1
Legal Description:	Clackamas County Assessor describes the substation property as tax lot 301 on map 3 2E 12A
Zoning:	Clackamas County Zoning and Development Code (ZDO) specifies that the property occurs within the Agriculture / Forest zone
County Pre-Application History:	Pre-Application Conference Summary was provided on December 30, 2025 under file number ZPAC0133-25. Pursuant to ZDO Section 1006, a Preliminary Statement of Feasibility for surface water management, treatment, and conveyance is required. This memo

2. Project Overview

Due to increased population, PGE's Redland Substation has become increasingly overloaded and is in need of upgrades. These upgrades will provide additional capacity as well as the opportunity to replace ageing transformers and communication systems at the site. This work will include replacing the gravel driveways to the substation, and the construction of new gravel access roads and gravel pads just south of the substation, see [Figure 2](#). The new and replaced impervious areas add up to 30,414 SF, which will trigger a stormwater analysis, further described in this memo.



Figure 1. Project Location



Figure 2. New and Replaced Impervious Area

2. Codes and Requirements for Stormwater Management

2.1 Clackamas County Zoning and Development Ordinance Codes

This project is within Clackamas County and shall follow Clackamas County ZDO codes. Per Clackamas County ZDO 1203.02, a Surface Water Management Preliminary Statement of Feasibility in accordance with Section 1006 is required. Section 1006.06 of Clackamas County ZDO states that a surface water management plan is required. The plan shall include methods to minimize the amount of pollutants created from proposed development and shall follow elements required by the surface water management authority. Surface water management requirements from the Clackamas County Roadway Standards will apply to this project per Clackamas County ZDO 1006.06B. At the request of the client, a stormwater memo was prepared to summarize overall findings for the stormwater management approach.

2.2 Clackamas County Roadway Standards

The Clackamas County online interactive Map (CMap) shows that the project location is outside of the Urban Growth Boundary (UGB). And since the new plus replaced impervious surfaces for the proposed project is greater than 10,000 SF, per Clackamas County Roadway Standards, Section 1302.4.5, stormwater management standards in accordance with Chapter 4 are required. Per Chapter 4 of the Clackamas County Roadway Standards, Section 4.10.2, engineering has adopted the Water Environment Services (WES) stormwater standards. However, if any conflicts arise between the WES standards and the standards listed under Section 420 of Clackamas County Roadway standards, Clackamas County Roadway standards will govern.

2.3 Water Environment Services (WES) Stormwater Standards

Since the development and redevelopment creates greater than 5,000 SF of impervious surfaces, per the minimum requirements laid out in Section 2.3 of the WES Stormwater Standards, for the proposed project requires a submittal of a Preliminary Site Plan (covered in this memo, see Section 2.1.), a design of the selected Stormwater Management Facility (SMF) that meets flow control and water quality performance standards, and an Operations and Management Plan for the SMFs to ensure long-term functionality.

Allowable SMFs approved by the district are included in Section 6.3.1 of the WES stormwater Standards, under Table 5. These facilities are the preferred strategies to meet both flow control and water quality treatment to meet stormwater management requirements (WES, 2023 p.58).

Sheet Flow Dispersion is one of the simplest methods of stormwater management and is an approved SMF listed in Table 5. Since flows already evenly disperse at the site, only a narrow band of adjacent vegetation is needed for effective flow attenuation and treatment. In order to use sheet flow dispersion for this project site, requirements laid out in Section 6.5.11 of the WES Stormwater Standards must be met, these requirements are justified below.

The Clackamas County Map (CMap) shows that the project area is not in a flood zone. The Statewide Landslide Information Layer for Oregon (SLIDO) map shows that the project area is not within a landslide inventory boundary. The project site is assumed to not be contaminated, not located on an abandoned landfill, and not near septic systems. The top 10 feet of the dispersion area was measured in CAD using existing topography and are not greater than 25%. Dispersion areas shall be protected so they do not get compacted during construction. The proposed impervious surfaces should be sloped 15% or less to meet sheet flow dispersion. Using GIS imagery, see **Figure 1**, the dispersion areas are well-established with lawn or native vegetation with natural groundcover. It is assumed that no erosion or flooding will occur on downstream properties due to the sheet flow dispersion SMF.

3. Stormwater Management Facility (SMF)

3.1 SMF Design

Per section 6.5.11 in the WES Stormwater Standards, a 2-ft-wide transition zone between the impervious area and dispersion area is required. The transition zone can be an extension of subgrade material (crushed rock), modular pavement, drain rock, or other materials approved by the district. The dispersion area or vegetated area should be 10-feet-wide for up to 20 feet of contributing impervious area, with an addition 5 feet added to the width for each additional 20 feet width of contributing impervious area. See **Figure 3** for transition zone and dispersion areas. Dimensions are based off the criteria described above and are placed based on the proposed impervious area grading. Per ZDO 1003.02(D), transition and dispersion zones are not placed on slopes 20% and steeper.



Figure 3. Sheet Flow Stormwater Management Facility.

3.1 Operations and Management (O&M) Plan for Sheet Flow Dispersion

Sheet Flow Dispersion does not match any of the SMFs listed in Appendix B of the WES Stormwater Standards, so per Section 9.2.1, the Engineer shall be responsible for creating drawing, maintenance specifications, and an inspection checklist for the Operation and Maintenance Plan.

4. Sources

Clackamas County. 2020. *Clackamas County Roadway Standards*. Department of Transportation and Development Engineering, Development Services, and Transportation Maintenance. [fc5951b3-7eab-424c-a4d2-b484220a3ffb](#)

Clackamas County. 2026a. *Zoning and Development Ordinance*. <https://www.clackamas.us/planning/zdo>

Clackamas County. 2026b. *Clackamas Maps*. [Clackamas County](#)

Oregon Department of Geology and Mineral Industries. 2026. *Statewide Landslide Information Layer for Oregon*. [SLIDO: Statewide Landslide Information Layer for Oregon](#)

Water Environment Services. 2023. *Water Environment Services Stormwater Standards*. Clackamas County. [dochub.clackamas.us/documents/drupal/8d85190a-fd37-4c24-a2c6-e26026b7dae8](#)



MEMORANDUM

To: Ian Wilson, PE | Portland General Electric

Date: May 19, 2025

GRI Project No.: 7194-A

From: Nathan Villeneuve, CEG; and George Freitag, CEG

Re: Engineering Geology Evaluation
Portland General Electric Redland Substation Duct Bank Installation
Clackamas County, Oregon

As requested, GRI completed an engineering geology evaluation for the above-referenced project, which is in unincorporated Clackamas County, Oregon. The project location is shown on the Vicinity Map, Figure 1. The purpose of this memorandum is to review and document geologic conditions and slope-related hazards along the project alignment in support of a land-use application and address applicable provisions of the Clackamas County Zoning and Development Ordinance (ZDO), which include the following:

- ZDO 1002.01.B – Hillsides
- ZDO 1003.02.B – Standards and Criteria for Mass Movement Hazard Area Development.

Our scope of work included a review of publicly available geologic information, a site reconnaissance, and preparation of this memorandum summarizing our findings. Geotechnical subsurface explorations and quantitative slope stability analyses were not performed as part of this phase of work.

All elevations are referenced to the North American Vertical datum of 1988 (NAVD 88). The following report, provided by Portland General Electric (PGE), was reviewed and referenced for this evaluation:

GeoDesign, Inc., 2019, Report of Geotechnical Engineering Services – Redland Substation Improvements.

PROJECT DESCRIPTION

PGE intends to install a utility duct bank beginning at the southeast corner of the Redland Substation and extending eastward to S Henrici Road. The alignment will follow the northern boundary of the transmission line corridor right-of-way (ROW), as shown on the Site Plan, Figure 2. The section of the alignment traversing the hillside measures approximately 1,000 feet in length, with the duct bank proposed to be approximately 6 feet wide. The current construction plan is to use surface trenching methods, with trench depths varying between 3 feet and 8 feet, depending

on the topography and requirements for vault access. The alignment crosses terrain that meets the criteria for ZDO 1002.01.B – Hillsides, as well as ZDO 1003.02.B – Standards and Criteria for Mass Movement Hazard Area Development.

SITE DESCRIPTION

The project alignment crosses a moderately sloping hillside, beginning near the crest at an elevation of approximately 400 feet and descending to about 186 feet at South Henrici Road at the base of the slope. Ground surface gradients along this section generally range from 0% to 50% and average about 20%, with some localized areas exhibiting steeper slopes where breaks in the topography occur. The lidar information and contour lines for the site are shown on the Lidar Map, Figure 3. A two-track dirt road extends from the crest of the hill down to a landing at the transmission structures located midway along the slope (Poles 2157/2158 and 2159/2160). Additionally, a possible drainage swale originates near these structures and leads southeast from the landing. Vegetation consists primarily of grasses and low shrubs, with taller woody vegetation limited due to vegetation management associated with overhead transmission line corridors. Mature trees are just north of the proposed alignment, outside of the transmission line corridor.

PGE indicated that there have been no known issues related to slope instability associated with the existing substation footprint or surrounding improvements.

GEOLOGY

Regional Geology

The project area is on the eastern edge of the Willamette Valley province, a structural low formed by regional faulting and long-term subsidence during the Miocene Epoch and since. The basin is underlain by widespread Miocene flood basalts that form the regional geologic basement and is infilled by younger volcanic and fluvial deposits. Late Pleistocene cataclysmic flooding and subsequent incision further modified regional landforms and sediment distribution. Overall, regional geology reflects the interaction of basaltic volcanism, fluvial sedimentation, and low-rate tectonic deformation that together control present-day topography, groundwater conditions, and geologic hazards (Orr and Orr, 2012).

Local Geology

Based on our review of available geologic mapping, the top of the hillside consists of the Basaltic Andesite of Hunsinger unit of the Boring Volcanics. This unit is described as gray, fine-grained basaltic andesite emplaced as massive flows (Madin, 2009). Boring logs from explorations inside the substation by GeoDesign (2019) indicate the presence of silt overlying decomposed basalt. Intact, coreable basalt was not encountered to maximum depth of exploration at 35.1 feet. Based on the geologic mapping, the Troutdale Formation underlies the Boring Volcanics and composes most of the hillside. This unit is described as complexly interbedded sandstone, mudstone, and conglomerate units deposited in a large fluvial system associated with the ancestral Columbia River and Cascade Range tributaries. Locally, Madin (2009) describes the formation as fine-grained

mudstone and claystone with variable sandstone and gravel lenses, with significant lateral and vertical heterogeneity, and that commonly form weak to moderately strong materials that are prone to landsliding where overlain by younger basalt flows. The site geology is shown on the Geologic Map, Figure 4.

Landslide Mapping

The Oregon Department of Geology and Mineral Industries is the state agency responsible for geologic hazard mapping in Oregon. They maintain the Statewide Landslide Information Database for Oregon (SLIDO), a spatial database of landslide susceptibility and mapped and inferred landslides. SLIDO indicates that a landslide (Unique ID *Oregon_City_461*) is mapped along the upper portion of the hillside, as shown on the SLIDO Map, Figure 5. SLIDO describes the landslide as a pre-historic (>150 years ago) complex landslide with a relatively deep failure surface. Several small historic (<150 years ago) debris flows are mapped at the base of the hillside in the project vicinity. The project alignment is mapped as having moderate to high susceptibility to shallow and deep landslides.

Lidar

SLIDO includes a bare-earth lidar hillshade layer for the project area, which presents the topography free of vegetation. This visualization method enhances the identification of landslide features by revealing subtle terrain changes that might otherwise be obscured by surface vegetation. The lidar data for the project site was gathered in 2019 through the Oregon Lidar Consortium West Metro project. Review of the lidar imagery shows that a prominent scarp at the crest of the hill aligns with the mapped scarp of the landslide. Below the primary landslide deposits, there is evidence of a smaller scarp and hummocky terrain, which are indicative of potential landslide activity. For a more detailed discussion of these features, refer to the site reconnaissance section.

SITE RECONNAISSANCE

On April 8, 2025, a Certified Engineering Geologist licensed in Oregon conducted a site reconnaissance of the project alignment. The purpose of this reconnaissance was to visually assess surficial topographic features along the alignment and within the transmission line corridor ROW. As part of the reconnaissance, aerial imagery was collected to supplement the ground-based observations. At the time of reconnaissance, vegetation within the area of the proposed alignment had been recently trimmed, resulting in short ground cover that allowed relatively clear observation of surficial features. The following paragraphs present a discussion of the key observations.

As previously discussed, SLIDO mapping identifies a landslide at the crest of the hill, whereas lidar imagery suggests a possible second, lower landslide. These areas are shown on Photograph 1 of the Site Photographs, Figure 6. Below the crest, the slope ranges from approximately 30% to 50% over a distance of about 100 linear feet before transitioning to a flatter area, as shown on

Photograph 2 of Figure 6,. This steeper section corresponds to the mapped SLIDO scarp area. The surface of the scarp was observed to have trimmed vegetation and scattered angular basaltic andesite cobbles and boulders. The flatter slope situated beneath the scarp displayed low-relief surface irregularities, resulting in a subtle, muted hummocky appearance.

Poles 2157/2158 and 2159/2160 are positioned at the midpoint of the slope, where some grading may have been performed to create a small landing. The terrain below these pole locations, similar to that at the hill crest, exhibited a possible gentle scarp and muted hummocky features extending to Pole 4434, as shown on Photograph 3 of Figure 6, Photograph 3. Below Pole 4434, the slope becomes flat and gentle, leading to the road cut at S Henrici Road. The road cut itself is nearly vertical and approximately 10 feet high at its tallest section, as shown on Photograph 4 of Figure 6.

No obvious indicators of recent slope hazards, such as ground cracks, fresh scarps, displaced soil or rock blocks, or leaning trees, were observed within the ROW. No seeps, springs, or flowing water were identified, and the ground surface was generally dry. Transmission structures and adjacent trees were mostly vertical, except for two poles at the middle transmission structures, as shown on Photograph 5 of Figure 6. One pole was leaning upslope, while the other pole was leaning downslope.

CONCLUSIONS AND RECOMMENDATIONS

Based on our review and site reconnaissance, we conclude the following:

- A mapped landslide hazard area intersects portions of the project alignment; however, observed surface conditions are consistent with dormant landslide deposits with no evidence of active landsliding.
- The proposed duct bank installation involves shallow, temporary disturbance and will not materially alter the slope geometry or drainage conditions.
- Duct bank installation will not impact the road cut at S Henrici Road.
- No structures (such as retaining walls or buildings) are planned.
- No mass grading or large-scale disturbance to the hillside is planned.

In our opinion, the project is limited in nature and is not expected to increase hillside or mass movement hazards, subject to appropriate construction practices as detailed below.

Construction Recommendations

Construction of the proposed duct bank should be conducted in a manner that minimizes disturbance to hillsides and reduces the potential for mass movement. Construction activities should be confined to the minimum area necessary to complete the work, and unnecessary

disturbance of adjacent slopes should be avoided. Heavy equipment staging and material stockpiling should be limited and, where practicable, located off the hillside and outside mapped hazard areas. Construction should be performed in the dry season.

Trenching should be performed in short, manageable segments, particularly where slopes exceed approximately 20 percent. Open trenches should not remain unfilled for extended periods, especially during wet weather. Excavation depths and widths should be limited to those required for duct bank installation, and over-excavation of native materials should be avoided. Where loose or disturbed soils are encountered, they should be removed and replaced with compacted backfill suitable for restoring pre-construction ground conditions.

Within the steeper portions of the hillside, construction should emphasize minimal disturbance and rapid restoration. Trenching should be limited to what can be excavated and backfilled in one to two days in these areas. Excavation and backfilling should avoid altering the overall slope profile or introducing long-term surcharge loading. Prolonged stockpiling of excavated material should be avoided, and construction sequencing should limit the extent of concurrent disturbance in steep areas.

Surface and subsurface drainage conditions should be carefully managed during construction. Temporary measures should be implemented to prevent surface water from entering open trenches, and construction activities should avoid redirecting runoff onto adjacent slopes. Groundwater and seepage within the trench should be monitored and appropriate measures taken to control water or seepage within the trench if encountered.

If unexpected conditions such as excessive sloughing of trench walls, sudden increases in seepage, or ground displacement are encountered, work in the affected area should be suspended and evaluated by the project engineer or engineering geologist to evaluate whether modifications to construction methods are warranted.

Upon completion of duct bank installation, ground surfaces should be restored to approximate pre-construction grades. No permanent changes to slope geometry or drainage patterns should remain following construction, and the completed work should leave slopes in a condition consistent with long-term stability under existing site conditions.

LIMITATIONS

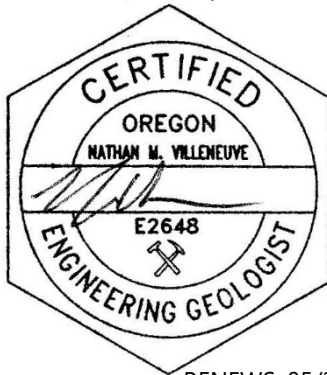
This memorandum has been prepared in support of the Redland Substation Duct Bank project and is limited to an evaluation of the geologic hazards discussed above. The scope is limited to the specific project and location described within this memorandum, and the description of the project elements represents our understanding of the significant aspects of the project relative to geologic hazards. The scope of this engineering geologic evaluation was limited to site reconnaissance, review of available geologic information, discussion with PGE personnel, and

qualitative assessment of slope conditions along the proposed duct bank alignment. Subsurface explorations and quantitative slope stability analyses were not performed as part of our work scope. In the event that changes to the project are planned, we should be given the opportunity to review the changes and modify or reaffirm the information provided in this memorandum.

We have included as Attachment A the Geoprofessional Business Association guidance document "Important Information about This Geotechnical-Engineering Report" to assist you and others in understanding the use and limitations of this memorandum. We recommend you read this document.

Please contact the undersigned if you have any questions.

Submitted for GRI,



RENEWS: 05/2027

Nathan M. Villeneuve, CEG
Senior Engineering Geologist

George A. Freitag, CEG
Principal

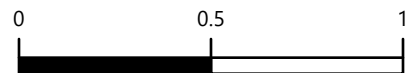
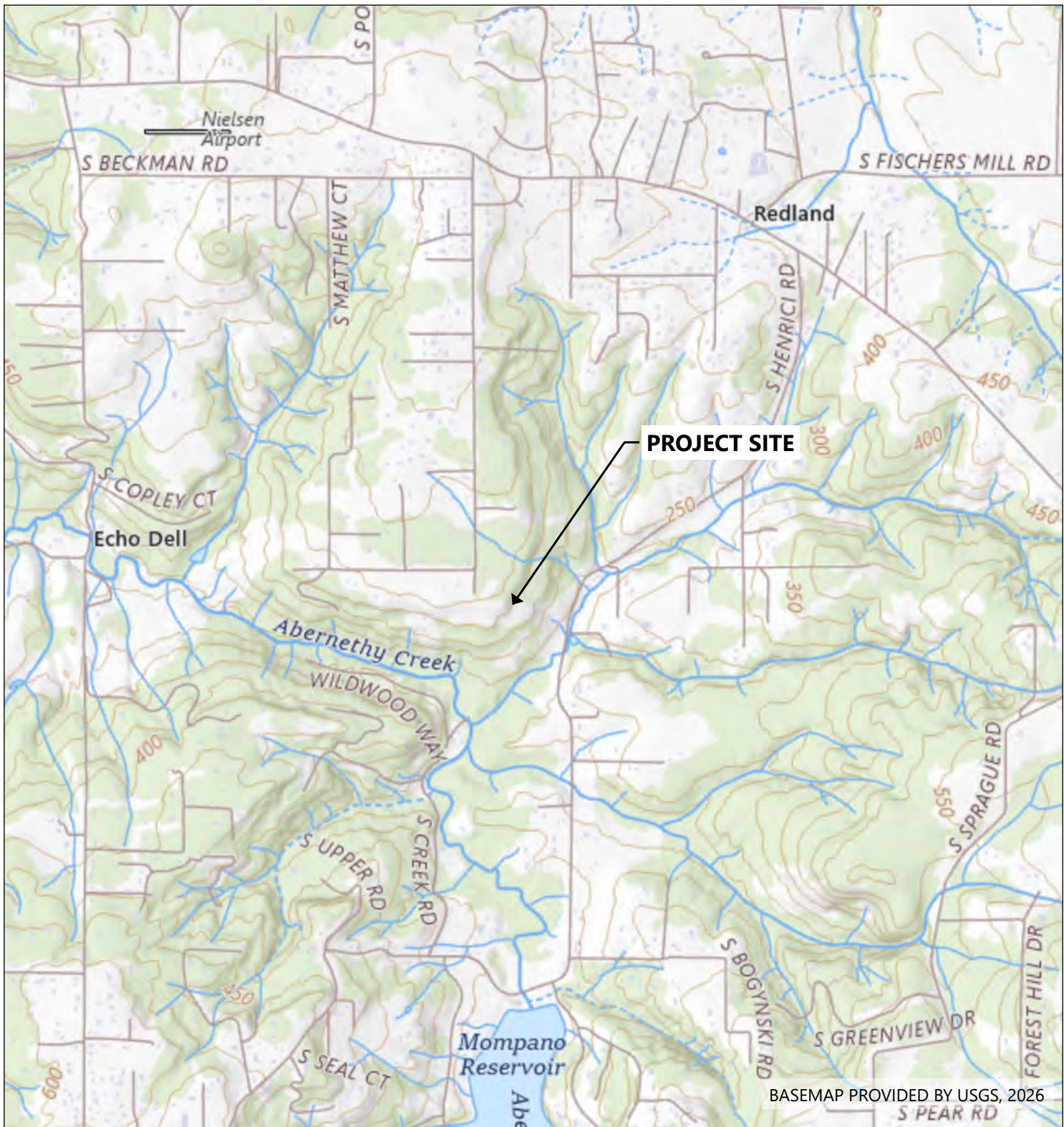
This document has been submitted electronically.

7194-A ENGINEERING GEOLOGY EVALUATION MEMORANDUM

Enclosures: Figure 1, Vicinity Map
 Figure 2, Site Plan
 Figure 3, Lidar Map
 Figure 4, Geologic Map
 Figure 5, SLIDO Map
 Figure 6, Site Photographs
 Attachment A, Geoprofessional Business Association Guidance Document

REFERENCES

- Clackamas County, 1980, Clackamas County zoning and development ordinance: Planning and Zoning Division, Oregon City, Oregon.
- GeoDesign, Inc., 2019, Report of geotechnical engineering services, Redland Substation Improvements.
- Madin, I. P., 2009, Geologic map of the Oregon City 7.5' quadrangle, Clackamas County, Oregon: Oregon Department of Geology and Mineral Industries, Geological Map Series GMS-119, 1:24,000
- Oregon Department of Geology and Mineral Industries (DOGAMI), 2024, State landslide information database for Oregon (SLIDO), Version 4.5: Accessed April 2026 from <https://gis.dogami.oregon.gov/maps/slido/>.
- Orr, E. L., and Orr, W. N., 2012, Oregon geology: Oregon State University Press, Corvallis, 304 pp.



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PORTLAND GENERAL ELECTRIC
ENGINEERING GEOLOGY EVALUATION
REDLAND SUBSTATION DUCT BANK

VICINITY MAP



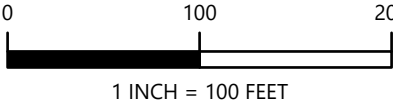
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LEGEND:

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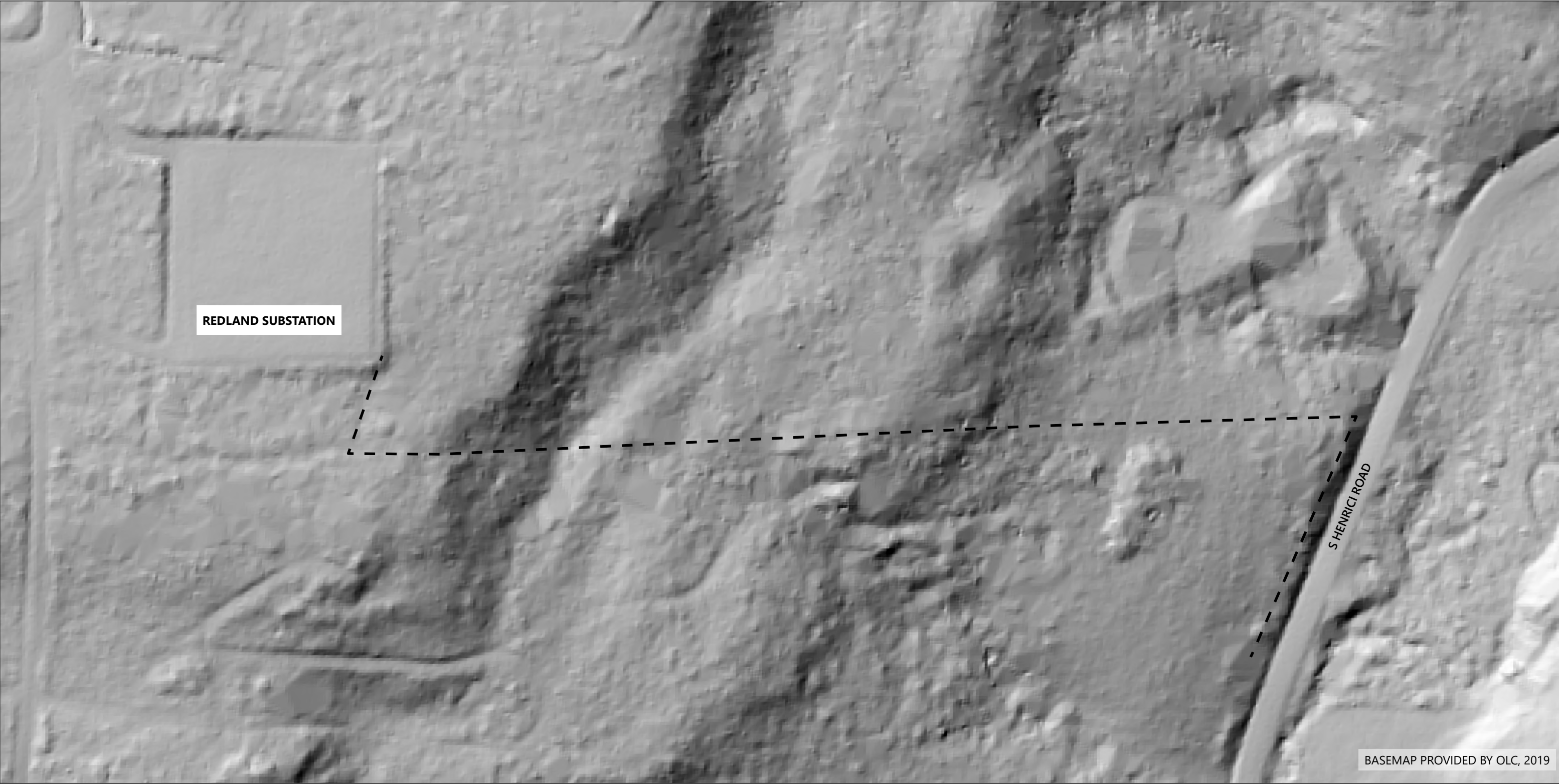
1. DUCT BANK ALIGNMENT GEOREFERENCED FROM FILE "M6001913 - PRELIMINARY SKETCH" DATED 12/18/2025 AND IS APPROXIMATE. SHOWN FOR VISUAL REFERENCE ONLY AND SUBJECT TO CHANGE.





PORTLAND GENERAL ELECTRIC
ENGINEERING GEOLOGY EVALUATION
REDLAND SUBSTATION DUCT BANK

SITE PLAN

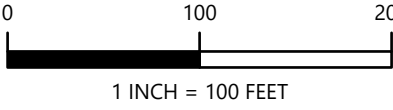


LEGEND:

- - APPROXIMATE DUCT BANK ALIGNMENT

NOTES:

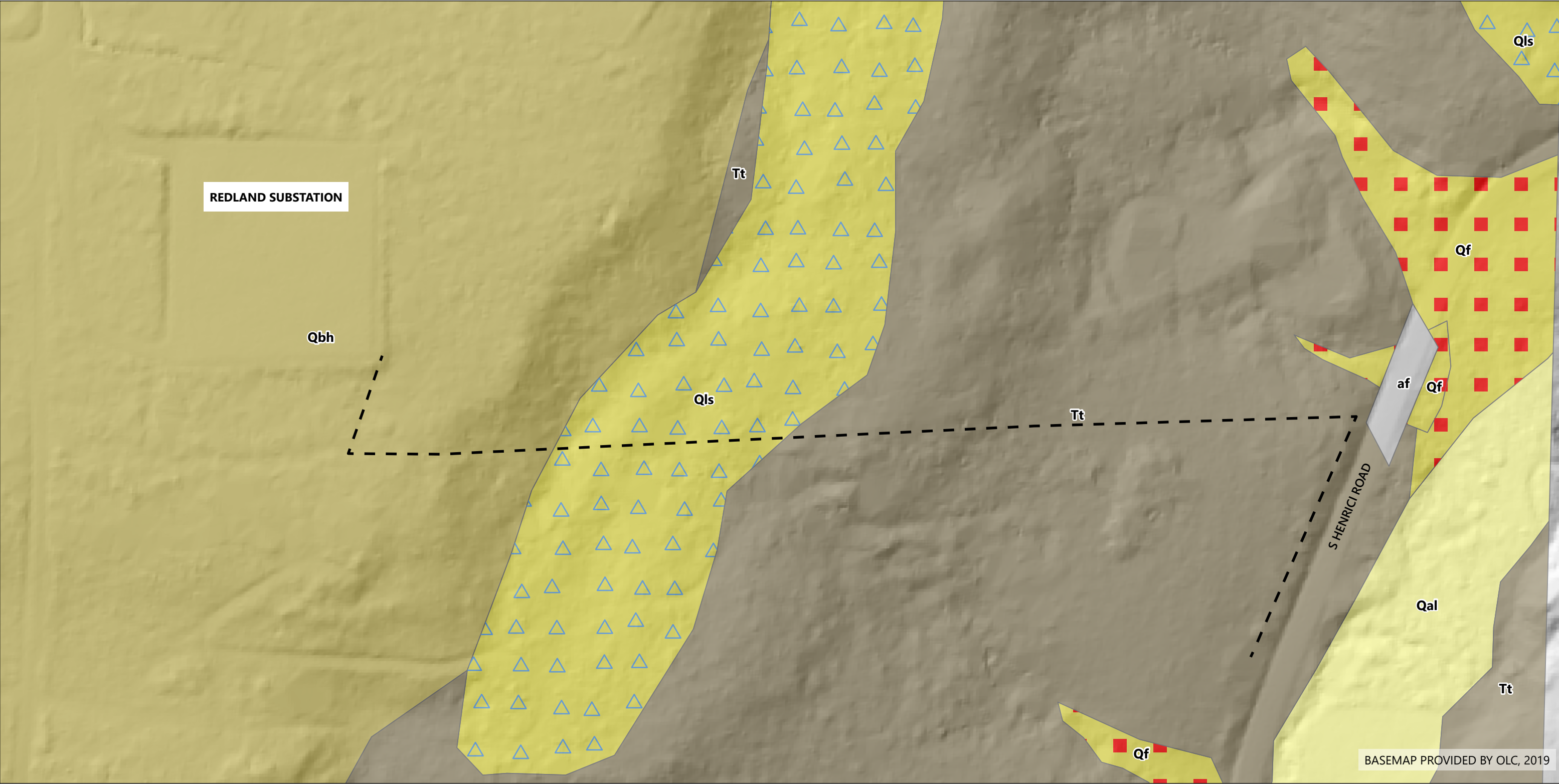
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- 3. LIDAR IMAGERY PROVIDED BY OREGON LIDAR CONSORTIUM (OLC).





PORTLAND GENERAL ELECTRIC
ENGINEERING GEOLOGY EVALUATION
REDLAND SUBSTATION DUCT BANK

LIDAR MAP



LEGEND:

- - APPROXIMATE DUCT BANK ALIGNMENT
- QAL - ALLUVIAL DEPOSITS
- QBH - BASALTIC ANDESITE OF HUNSINGER
- QF - FAN AND FLOW DEPOSITS
- QLS - LANDSLIDES
- TT - TROUTDALE FORMATION
- AF - ARTIFICIAL FILL

NOTES:

1. DUCT BANK ALIGNMENT GEOREFERENCED FROM FILE "M6001913 - PRELIMINARY SKETCH" DATED 12/18/2025 AND IS APPROXIMATE. SHOWN FOR VISUAL REFERENCE ONLY AND SUBJECT TO CHANGE.
2. GEOLOGY PROVIDED BY MADIN (2009). SEE TEXT FOR REFERENCE.
3. LIDAR IMAGERY PROVIDED BY OREGON LIDAR CONSORTIUM (OLC).

GRI PORTLAND GENERAL ELECTRIC
ENGINEERING GEOLOGY EVALUATION
REDLAND SUBSTATION DUCT BANK

GEOLOGIC MAP



LEGEND:

- APPROXIMATE DUCT BANK ALIGNMENT
- ===== SCARP
- ===== HEAD SCARP
- ===== FAN
- ===== LANDSLIDE

NOTES:

1. DUCT BANK ALIGNMENT GEOREFERENCED FROM FILE "M6001913 - PRELIMINARY SKETCH" DATED 12/18/2025 AND IS APPROXIMATE. SHOWN FOR VISUAL REFERENCE ONLY AND SUBJECT TO CHANGE.
2. LANDSLIDE INFORMATION PROVIDED BY DOGAMI SLIDO V4.6, ACCESSED APRIL 2026.

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1 INCH = 100 FEET

GRI PORTLAND GENERAL ELECTRIC
ENGINEERING GEOLOGY EVALUATION
REDLAND SUBSTATION DUCT BANK

SLIDO MAP



PHOTOGRAPH 1: SITE OVERVIEW LOOKING NORTH. DASHED LINES AND ARROWS SHOW WHERE MAPPED DOGAMI LANDSLIDE CONTINUES NORTH OF THE TRANSMISSION LINE CORRIDOR



PHOTOGRAPH 2: VIEW OF MAPPED DOGAMI LANDSLIDE AREA, LOOKING NORTH



PHOTOGRAPH 3: VIEW OF INFERRED LANDSLIDE AREA, LOOKING NORTH



PHOTOGRAPH 4: VIEW OF S HENRICI ROAD CUT, LOOKING SOUTHWEST



PHOTOGRAPH 5: VIEW OF POLES 2157/2158 AND 2159/2160, LOOKING NORTH



ATTACHMENT A

Geoprofessional Business Association Guidance Document

Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it.* A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual site-wide subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report’s Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you’ve included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration.* Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists.*



**GEOPROFESSIONAL
BUSINESS
ASSOCIATION**

Telephone: 301/565-2733

e-mail: info@geoprofessional.org www.geoprofessional.org

PGE REAL PROPERTY LAND DOCUMENT INDEX SUMMARY

PGE AUDIT NO. 78209-00		DATE 9/27/2019
RECORD INFORMATION		
EFFECTIVE DATE 8/13/1973		DOCUMENT CATEGORY Land Use
EXPIRATION DATE		DOCUMENT TYPE Application
PLAT MAP I.D. (e.g., D21-17) D32-12A		TOWNSHIP / RANGE / SECTION (e.g., T1N R2E 23) T3S R2E 12
COUNTY Clackamas	STATE OR	JOB NO.
SITE NAMES		
SITE NAME		
PARTIES TO AGREEMENT		
Clackamas County Planning Commission		
COMMENTS Redland Substation		
TERMS & CONDITIONS		
STAFF CONTACT Kelsey Post-Trostle	DEPARTMENT 791	
ACCOUNTING DISTRIBUTION		
ACCOUNTING	TOTAL CONTRACT VALUE	
ROUTING		
SEND <u>ORIGINAL</u> AGREEMENT with this <u>ORIGINAL</u> DOCUMENT SUMMARY to: RIM, 3WTCFST WITHIN 5 DAYS of document signing.		 RIM

922325

CU 51-73

32E 12A 30~~0~~

SHIP LIST

..(Office Use Only)

[illegible]

August 20, 1973

Mr. C. R. McClellan
Portland General Electric Co.
707 Main Street
Oregon City, Oregon 97045

Dear Mr. McClellan:

RE: File No. GU-51-73

This is to advise you that at the regular meeting of the County Planning Commission, Monday, August 13, 1973, your application for a Conditional Use Permit to construct an electrical distribution substation on property described as a portion of Tax Lot 300, Section 12, T3S, R2E, was presented and carefully studied.

The Commission, upon considering all the facts and evidence presented, felt that your request should be granted as a need has been shown and evidence has been given that a public benefit would be derived in approval of the request. This approval is also subject to review and approval by the County Design Review Board.

There is a fifteen (15) day waiting period provided by the Zoning Ordinance as an "appeal period" which must be satisfied before any other action can be taken; therefore, after August 28, 1973, you may proceed with your plans, unless an appeal is filed opposing the decision. You will be notified if an appeal is filed.

If you have any questions concerning this matter, please feel free to contact this office.

Sincerely yours,

JAMES E. HALL
Planning Director


DOMINIC MANCINI
Zoning Administrator

DM:vs

cc: Board of County Commissioners ✓

6. CU-51-73: REQUEST FOR A CONDITIONAL USE PERMIT:

APPLICANT: PORTLAND GENERAL ELECTRIC
PROPOSAL: To construct an electrical distribution substation
LOCATION: On the southeast corner of North End Road and Gracie Road; Redland Area
PRESENT ZONE: RA-1, Rural (Agricultural) Single Family Residential
PROPOSERS: Chuck McClelland, POE
OPPOSERS: John Hines
REBUTTAL: Chuck McClelland - Proponent
John Hines - Opponent
ACTION: A motion was made by Mr. Perkins and seconded by Mr. Dodd to APPROVE this request as a need has been shown and evidence has been given that a public benefit would be derived in approval of the request. This is further shown in the staff comments on the matter. This approval is also subject to review and approval by the County Design Review Board.
AYES: 7 NAYES: 0

7. ZC-27-73: REQUEST FOR A ZONE CHANGE:

APPLICANT: LAVELL, G.
PROPOSAL: To change the zone from R-20 to I-2, Light Industrial, for the southerly 150 feet of the northerly 400 feet of Tax Lot 100
LOCATION: South of Sunnybrook Street at its east terminus; Clackamas Area
PRESENT ZONE: R-20, Single Family Residential
PROPOSERS: G. Lavell
OPPOSERS: Audrey Sherrell; Pat Olsen; Estelle Wilson and Frank Temple
REBUTTAL: G. Lavell - Proponent
Wilbur Sherrell; Elsal Wandary and Mrs. Wilson - Opponents

CU-51-7

Castroville, Cal.
Aug 8, 1973

Re: Proposed Conditional Use to Permit
an electrical Substation on a portion of T. 4 S. Sec 12,
T. 3 S. R. 2 E. of Blackman County, Cal.

The Site is specifically well suited for the requested
use by the following:

1. ① The Site lies adjacent to and includes the power source which is the primary requirement for the intended use.
2. ② The Natural Vegetation and trees will immediately provide screening through careful Site Selection for the proposed construction. The Site is well in excess of the minimum required by the proponent. This will provide a generous setback which will preclude reduction in the aesthetic quality found in this rural area.
3. ③ ④ The Site is screened from properties to the North by existing trees and foliage.
⑤ Properties to the east are topographically separated by unbuildable slopes which will provide visual screening.
⑥ The Properties west of the proposed Site will be separated by screening and generous setbacks which will preclude visual intrusion.

- ① The remainder of T.L. (200) Sec. 12, T8S, R.2E, will retain the R.O.H. Strip along the west boundary of the proposal which will provide access to the upper elevations of the property, perpetuating the possibility of Sanitary extension of Harris road at some future time should the need become apparent.

74) Needs

The needs of the community with regard to utility services is apparent. These needs will continue to increase with the construction of additional residences in this rapidly growing Area. As ever increasing needs of residences demand higher qualities of service, the responsibility of Planning Groups charged with the formidable task of defining the "Highest and Best Use" for land must include the preservation of sites specifically suited for Utility Service.

- 5) As the owner of adjacent property I would recommend approval of the site as requested with specific requirements regarding site plan approval to provide the best possible Visual Screening.

For

Mrs. Guy Keller
owner

August 13, 1973

STAFF COMMENTS

CU-51-73 - PORTLAND GENERAL ELECTRIC

REQUEST: Conditional Use Permit to construct an electrical distribution substation

PRESENT ZONE: RA-1, Rural (Agricultural) Single Family Residential

DEVELOPMENT PATTERN: Residential

PROPOSED PLAN: Suburban

SEWER & WATER: None Available

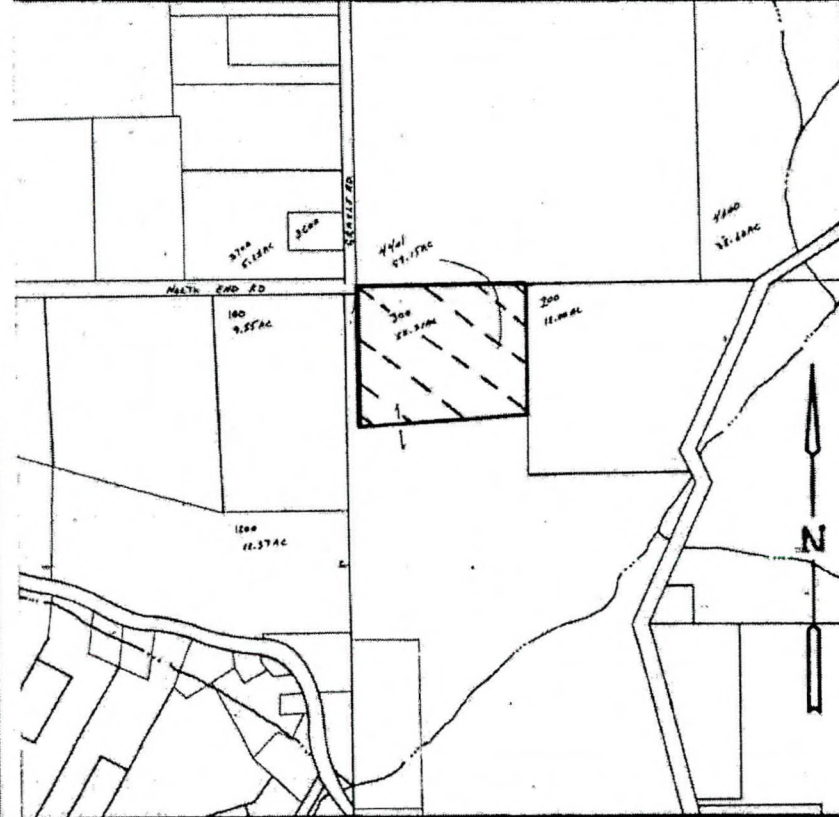
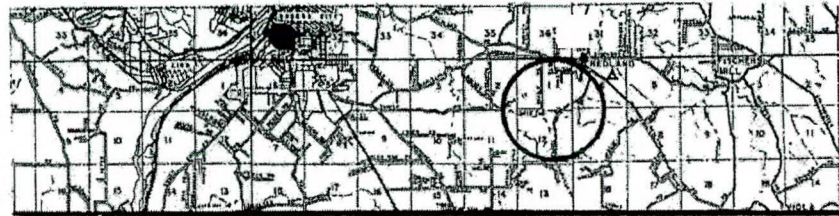
ACCESS: Gracie Road - forty (40) foot right-of-way County Road, paved to approximately sixteen (16) feet

SUBJECT SITE & ADJACENT DEVELOPMENT: The site is undeveloped with considerable brush and trees - mostly deciduous. The area suggested for substation construction has a gentle slope down to the south of some four (4%) percent. This slope increases considerably beyond the construction site consisting of a wooded hillside. Some twelve transmission lines of Portland General Electric and Bonneville Power Administration traverse across this slope on a 350 foot easement. The northerly 100 feet of this easement is to be incorporated into the substation property (six (6) lines). The nearest single family residences to this substation are situated on Tax Lots 100 & 3600. The majority of the adjacent land is currently undeveloped and wooded. Residences are scattered throughout the area.

COMMENTS: Maximum height within the substation is indicated at twenty-two (22) feet. The total site is to consist of approximately 7 1/2 acres with an interior plot of some 230 feet by 210 feet to be utilized for the substation site itself.

RECOMMENDATION: APPROVAL - subject to approval of a siting and planting plan by the County Design Review Board.

The need for distribution substations occurs as the number of users increase. The Redland area as well as other suburban areas have been experiencing this growth and thus creating this need. This site is contiguous to existing power line easements in an area which has not yet experienced much nearby residential development thereby minimizing the possible impact of this proposal.



PORTLAND GENERAL ELECTRIC
CU-51-73

SECTION 12, T3S, R2E
SCALE: 1" = 400'

CLACKAMAS COUNTY PLANNING COMMISSION
940 Warner-Milne Road
Oregon City, Oregon 97045

☐ ZONE CHANGE ☒ CONDITIONAL USE

Proposed Use: _____ Proposed Use: Electric Substation

Present Zone: _____ Present Zone: RA-1

Development Pattern: _____ Development Pattern: Residential

File No. _____
Receipt No. _____ Fee _____
Date Received _____
Hearing Date _____
Staff Member _____

Name of Applicant: Portland General Electric Company Phone: 655-5321
Home: _____

Mailing Address: 707 Main Street, Oregon City, Oregon 97045

Applicant is: Legal Owner ☒ Contract Buyer ☐ Option Holder ☐ Agent ☐

LEGAL DESCRIPTION OF THE PROPERTY INVOLVED IN THIS APPLICATION
(IF METES AND BOUNDS DESCRIPTION, INDICATE ON A SEPARATE SHEET)

Location East and South of the South end of Gracie Rd Lot 5 (Approximate) A portion of
Block _____ Subdivision _____ Sec. 12 T. 3 S. R. 2 E. Total Land Area 7.45 acres
Portland General Electric Company See separate sheet for metes and bounds
By CR McCallan Asst. Division Mgr. 707 Main Street, Oregon City, Oregon 97045
Signature of Legal Owner Address

- What is Requested: Conditional Use Permit to construct electric distribution substation.
- Proposed Use(s) and sequence of construction: Electrical Distribution Substation
Grading, roadways, foundations, install equipment (electric), connect to transmission
and distribution lines.
- Anticipated Timeframe for Project: Start December, 1973 Finish March, 1974
- Present use of this property: None - no structures
- Will FR or Removal be required to develop this site: Yes _____ No X How much? _____
- State specific reasons for this request and its effect on the surrounding area: The growth in the number of electrical
customers (mainly residential) in the area surrounding this site has been such that to
provide adequate electric service a distribution substation is needed. The site is near
the end of a moderately travelled road and provides for natural screening. The substation
will be located on the property so as to provide a minimal effect on the surrounding area.
Because this site is adjacent to existing transmission lines, construction of additional
transmission lines and towers will be unnecessary.
- Method of sewage disposal: None necessary Water Supply: None necessary
- Has County Health Department approved this request: ☐ Yes ☐ No ☒ Not Contacted
- How will surface water be taken care of? N/A
- Total Off-street parking spaces (provide 10' x 20' proposed): None
- Total employees and/or occupants: Present None Proposed None

I hereby certify the statements contained herein, along with the evidence submitted, are in all respects true and correct to the best of my knowledge and belief.

NOTE

Attach detailed, accurate site plans (minimum of three copies are required). Other statements, plans, photos, data, etc., which would help to substantiate and clarify your request may also be submitted.

Portland General Electric Company
By CR McCallan Asst. Division Mgr.
Applicant's Signature
July 19, 1973
Date

Land – Indexing Sheet / Contract Summary

Audit No. 27785-00

☐ Confidential

Land Document Type (check one)

- | | |
|--|---|
| ☐ Contract | ☐ License |
| ☒ Deed | ☐ Other Land Doc (mortgage, restrictive covenant, resolution, sale etc.) |
| ☐ Easement – Distribution | ☐ Permit – Corp of Engineers |
| ☐ Easement – Other (OH, UG, anchor, utility, aerial, road etc.) | ☐ Permit – Highway (ODOT) |
| ☐ Easement – Release | ☐ Permit – Other (agricultural, BPA etc.) |
| ☐ Easement – Transmission | ☐ Permit – Railroad |
| ☐ Lease | ☐ Permit – US Forest Service |

Document Date 08/03/1973

Expiration Date

Drawing No.

Land No. 5409-00

County/State Clackamas
(County only inside Oregon, State only outside Oregon)

Plat Map ID. D32-12
(e.g. D21-17)

Township/Range/Sec T3S R2E 12
(e.g. T1N R2E 23)

Parties Names

Keller, Marguerite	

Comments/Keywords (may include: tax lot, site name, site address, type of easement (UG, OH, anchor, aerial etc), special conditions (renewable, relocatable, revocable), recording information, deed reference, partition plat number etc)

WARRANTY DEED / VOL 73 27372 08.28.1973 / Redland Substation / Market Rd 20 /

Redland Rd

Purpose of Contract		
Sold described real property		
Parties Address:	Contracting Officer:	RC: 791
Staff Contact:	Payment Terms and Conditions: \$ 26,075	Accounting Distribution:

MARGUERITE KELLER, hereinafter called Grantor, conveys
to PORTLAND GENERAL ELECTRIC COMPANY, an Oregon corporation, all
that real property situated in Clackamas County, State of Oregon,
described as:

A parcel of land in the Northwest quarter of the
Northeast quarter of Section 12, T. 3 S., R. 2 E.,
of the W.M., Clackamas County, Oregon, the said
parcel being a portion of that certain real property
described in Book 573, Page 272 of Deed Records
of said county, the said parcel being more particu-
larly described as follows:

BEGINNING at the stone monumenting the quarter corner
between Sections 1 and 12 of T. 3 S., R. 2 E., W.M.;
thence, tracing the West line of said quarter,
South 1°26'00" West 512.66 feet, more or less, to
a point on the South boundary of a 100 feet in width
Portland General Electric Company transmission line
easement, the said South boundary also being the
North boundary of a 250 feet in width Bonneville Power
Administration easement; thence, tracing the said
boundary North 88°23'00" East 689.19 feet, more or
less, to the East line of said quarter; thence tracing
the East line of said quarter and the West line of
the Randolph tract as described in Book 504, Page
343 of Deed Records of said county, North 0°37'50"
East 479.83 feet, more or less, to an iron pipe monumenting
the Northeast corner of said quarter; thence, tracing
the North line of said Section 12, North 88°53'10" West
681.50 feet, more or less, to the stone at the place of
beginning.

SAVE AND EXCEPT a parcel of land 30 feet in width
running parallel and adjacent to the Westerly line of
the above described tract.

and covenant that Grantor is the owner of the above described
property free of all encumbrances except an easement created by instrument,
including the terms and provisions thereof, recorded September 17, 1957
in Book 530, Page 588, Deed Records of Clackamas County, Oregon, in favor
of Portland General Electric Company, an Oregon corporation, for the erection,
operation, maintenance and repair of electric power transmission lines, over,
under and across the above described property, and will warranty and defend
the same against all persons who may lawfully claim the same, except as
shown above.

The true and actual consideration for this transfer is
\$26,075.00.

RE-RECORDED TO CORRECT THE LEGAL DESCRIPTION

Approved As To Description
R.D. Smith... Eng. Dept.

DATED this 3 day of August, 1973.

ILLEGIBLE COPY

Marguerite E. Keller
Marguerite Keller

STATE OF OREGON)
: ss.
County of Clackamas)

August 3, 1973.

Personally appeared the above-named Marguerite Keller who
acknowledged the foregoing instrument to be her voluntary act. Before me:

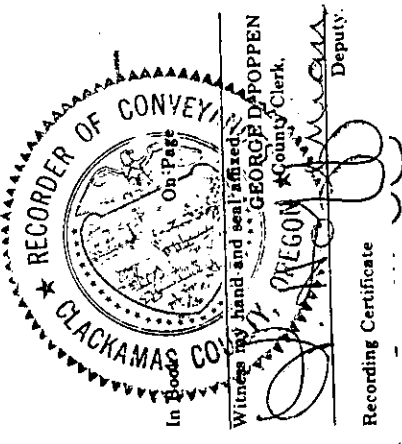


[Signature]
Notary Public for Oregon
My commission expires: 11-17-76

STATE OF OREGON, } ss.
County of Clackamas, }

I, George D. Poppen, County Clerk, Ex-Officio
Recorder of Conveyances and Ex-Officio Clerk
of the Circuit Court of the State of Oregon, for
the County of Clackamas, do hereby certify that
the within instrument of writing was received for
and recorded in the records of

DEED
1973 AUG 28 PM 12 26
73 27372



APPROVED AS TO FORM
PHILLIPS, COUGHIN, STOLOFF & BLACK
BY Wanna Hastings

2

APPROVED Robert P. Sullivan
MANAGER - LAND DEPARTMENT

AUDIT NO.	27785
DATE	AUGUST 3, 1973
NAME	KELLER, MARGUERITE
LOCATION	
SECTION	12 T. 35 R. 2E
COUNTY	CLACKAMAS
DOCUMENT COVERS	WARRANTY DEED
RENTAL	
EXPIRES	

Land – Indexing Sheet / Contract Summary

Audit No. 27784-00

☐ Confidential

Land Document Type (check one)

- | | |
|---|---|
| ☐ Contract | ☐ License |
| ☐ Deed | ☐ Other Land Doc (mortgage, restrictive covenant, resolution, sale etc.) |
| ☐ Easement – Distribution | ☐ Permit – Corp of Engineers |
| ☒ Easement – Other (OH, UG, anchor, utility, aerial, road etc.) | ☐ Permit – Highway (ODOT) |
| ☐ Easement – Release | ☐ Permit – Other (agricultural, BPA etc.) |
| ☐ Easement – Transmission | ☐ Permit - Railroad |
| ☐ Lease | ☐ Permit – US Forest Service |

Document Date 08/03/1973

Expiration Date

Drawing No.

Land No. 5408-00

County/State Clackamas
(County only inside Oregon, State only outside Oregon)

Plat Map ID. D32-12
(e.g. D21-17)

Township/Range/Sec T3S R2E 12
(e.g. T1N R2E 23)

Parties Names

Keller, Marguerite	

Comments/Keywords (may include: tax lot, site name, site address, type of easement (UG, OH, anchor, aerial etc), special conditions (renewable, relocatable, revocable), recording information, deed reference, partition plat number etc)

EASEMENT / VOL 73 27373 08.28.1973 / Redland Substation

Purpose of Contract Grant to construct and maintain an electrical circuit		
Parties Address:	Contracting Officer:	RC: 791
Staff Contact:	Payment Terms and Conditions: \$	Accounting Distribution:

ILLEGIBLE COPY

EASEMENT

KNOW ALL MEN BY THESE PRESENTS, That MARGUERITE KELLER, (hereinafter called "the Grantor"), for and in consideration of the payment of the sum of One and No/100ths Dollars (\$1.00), the receipt of which is hereby acknowledged, does hereby grant, sell and convey to PORTLAND GENERAL ELECTRIC COMPANY, an Oregon corporation, hereinafter called the Grantee, its successors and assigns, a perpetual easement under and across the following described parcel of land situated in Clackamas County, State of Oregon being a strip of land 30 feet in width, running parallel and adjacent to the westerly line of the following described property:

A parcel of land in the Northwest quarter of the Northeast quarter of Section 12, T. 3 S., R. 2 E., of the W.M., Clackamas County, Oregon, the said parcel being a portion of that certain real property described in Book 573, Page 272 of Deed Records of said county, the said parcel being more particularly described as follows:

BEGINNING at the stone monumenting the quarter corner between Sections 1 and 12 of T. 3S., R. 2E., W.M.; thence, tracing the West line of said quarter, South 1°26'00" West 512.66 feet, more or less, to a point on the South boundary of a 100 feet in width Portland General Electric Company transmission line easement, the said South boundary also being the North boundary of a 250 feet in width Bonneville Power Administration easement; thence, tracing the said boundary North 88°23'00" East 689.19 feet, more or less, to the East line of said quarter; thence tracing the East line of said quarter and the West line of the Randolph tract as described in Book 504, Page 343 of Deed Records of said county, North 0°37'50" East 479.83 feet, more or less, to an iron pipe monumenting the Northeast corner of said quarter; thence, tracing the North line of said Section 12, North 88°53'10" West 681.50 feet, more or less, to the stone at the place of beginning.

Said easement shall be for the perpetual right to install and maintain an electrical underground circuit under and across the above-described land of the Grantor; and also enabling the Grantee to use the granted premises for a non-exclusive roadway.

1 - EASEMENT

RE-RECORDED TO CORRECT THE LEGAL DESCRIPTION

Approved As To Description

Eng. Dept.

ILLEGIBLE COPY

The Grantor hereby does acknowledge that the purchase price named herein is accepted by the Grantor as full compensation for all damages incidental to the exercise of said easement.

Grantor does possess marketable title to the property covered by this easement and has the right to grant the same.

The Grantor for herself and her heirs and assigns, covenant to and with the Grantee, its successors and assigns, that the Grantee, its successors and assigns shall peaceably enjoy the rights and privileges herein granted.

IN WITNESS WHEREOF, the Grantor has caused this easement to be executed this 3 day of August, 1973.

Marguerite E. Keller (SEAL)
Marguerite Keller

STATE OF OREGON)
County of Clackamas) ss.

August 3, 1973.

Personally appeared the above-named Marguerite Keller who acknowledged the foregoing instrument to be her voluntary act. Before me:

[Signature]
Notary Public for Oregon

My commission expires: 11-17-76

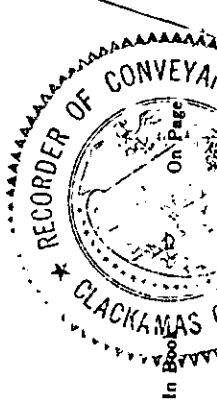
STATE OF OREGON, }
County of Clackamas, }

I, George D. Poppen, County Clerk, Ex-Officio
Recorder of Conveyances and Ex-Officio Clerk
of the Circuit Court of the State of Oregon, for
the County of Clackamas, do hereby certify that
the within instrument of writing was received for
and recorded in the records of

DEED

1973 AUG 28 PM 12 26
of said County at

73 27373



Witness my hand and seal affixed
GEORGE D. POPPEN
County Clerk
Deputy
Recording Certificate

2 - EASEMENT

APPROVED AS TO FORM
PHILLIPS, COUGHLIN, BUELL, STOLOFF & BLACK

BY Wm. H. H. H.

APPROVED

MANAGER - LAND DEPARTMENT

AUDIT NO.	27784
DATE	AUGUST 3, 1973
NAME	KELLER, MARGUERITE
LOCATION	REDLAND SUBS. SITE
SECTION	12 T. 3S R. 2E
COUNTY	CLACKAMAS
DOCUMENT COVERS	EASEMENT
RENTAL	
EXPIRES	

Memo

To: Clackamas County Planning Department
From: Laura Bishop, Manager, Property Rights Organization
Portland General Electric Company

Date: April 22, 2026

RE: Landowner Authorization - Redland Substation Rebuild

Introduction

Portland General Electric Company ("PGE") submits the attached documentation to confirm its authority to act as the landowner for purposes of the Redland Substation Rebuild Project. Fee ownership, existing easement rights, and recorded agreements grant PGE the legal authority to approve and undertake the proposed work described in the associated application.

Project Scope of Work

PGE is rebuilding the Redland Substation in Clackamas County Oregon. PGE previously acquired a Conditional Use Permit (CU51-73), which authorized construction and operation of this substation within the Agricultural/Forest (AG/F) zone. The proposed work includes:

- Replacement of the existing perimeter fence within the same location.
- Replacement of substation equipment.
- One-for-one replacement of existing power lines and poles serving the substation.
- Removal of one transmission switch and the installation of four new transmission switches.
- Improvements to the existing gravel access driveway.

The subject property is zoned AG/F, designated Forest under the Comprehensive Plan, and consists of approximately 7.47 acres. PGE owns this land in fee pursuant to Warranty Deed dated August 3, 1973 recorded on August 28, 1973, Volume 73 Page 27372, records of Clackamas County, Oregon.

Easement Details

Transmission Easements

(Dated September 26, 1957; recorded in Clackamas County Book 530, Page 588 and Book 531, Page 487)

These perpetual easements grant PGE the right to enter the property and to construct, operate, maintain, repair, rebuild, and patrol electric transmission lines and related infrastructure. The easements further authorize vegetation management and restrictions within the designated right-of-way.

Under the terms of the recorded easements, no additional permission from the underlying fee owner is required for PGE to perform these activities. The improvements proposed as part of the

Memo

Redland Substation Rebuild Project are consistent with the easement rights granted and are entirely contained within the easement area.

Access Easement

(Dated August 28, 1973; recorded in Clackamas County Volume 73 Page 27373)

This perpetual easement grants PGE a 30' in width strip of land running parallel and adjacent to the Redland Substation parcel. The easement shall be for the perpetual right to install and maintain an electrical underground circuit under and across the parcel of land and granting the use of a non-exclusive roadway.

Conclusion

Considering the proposed work is wholly within the recorded easement boundaries and expressly authorized by the easement language, no additional approval from the underlying property owner is required. Accordingly, PGE is authorized to sign off as the landowner for the Redland Substation Rebuild Project.

Please use the following contact information should additional documentation or clarification be required:

Portland General Electric Company, Property Rights Organization

Attn: Kelsey Trostle

Ph: 503.464.2387

Email: kelsey.trostle@pgn.com



**Planning and Zoning
Department of Transportation and Development**

Development Services Building
150 Beavercreek Road | Oregon City, OR 97045
503-742-4500 | zoninginfo@clackamas.us
www.clackamas.us/planning

PRE-APPLICATION CONFERENCE SUMMARY

Permit Type: Modification to a Conditional Use or Conditional Use

File No.: ZPAC0133-25

Proposal: PGE is requesting for modifications to an existing Conditional Use (CU51 – 73) permit which authorized the PGE Substation in the AG/F zone. The applicant proposes replacement of the fence in the same location, replacement of substation equipment, one-for-one replacement of power lines and poles/structures feeding the substation, removal of one transmission switch to be replaced with four new transmission switched, replacement of the gravel access driveway . No expansion outside of the existing footprint is proposed. The site is zoned Ag/Forest (AG/F) and is designated Forest in the Comprehensive Plan, is 7.47 acres in size and is adjacent to both residential and forest uses.

Staff Contact: Georgia McAlister, Sr. Planner, GMcAlister@clackamas.us, 503-742-4521

Applicant: PGE (Andrew Yaden)

Assessor's Map and Tax Lot No.: 32E12A 00301

Site Address: 17502 S North End Rd, Oregon City, 97045

Zoning: AG/F

Pre-Application Conference Date: 12/16/2025 via Zoom.

Date of this Summary: 12/30/2025

Clackamas County is committed to providing meaningful access and will make reasonable accommodations, modifications, or provide translation, interpretation or other services upon request. Please contact us at 503-742-4545 or drenhard@clackamas.us.

503-742-4545: ¿Traducción e interpretación? | Требуется ли вам устный или письменный перевод?

翻译或口译? | Cần Biên dịch hoặc Phiên dịch? | 번역 또는 통역?

I. APPLICABLE ZDO AND COMPREHENSIVE PLAN STANDARDS

a. ZDO Section AG/F:

- i. The subject property is located in the AG/F (ZDO 407) zoning district. The proposed use is a modification to an existing commercial utility facility for power generation (substation) which is a Conditional use in the zoning district.
- ii. The dimensional standards within the AG/F zone are established in Section 406.07

Dimensional Standards:

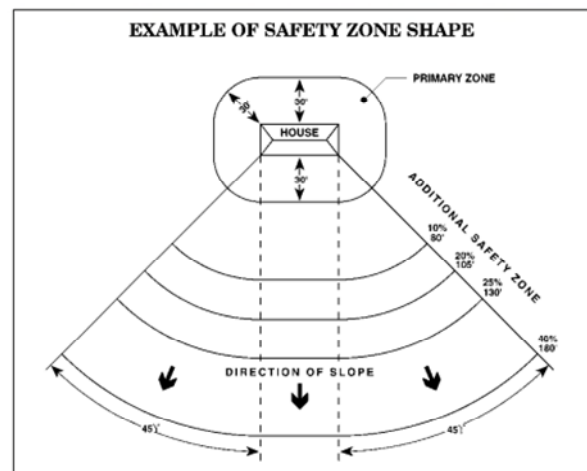
	Standard	Proposed	Compliant
Minimum Lot Size	80 acres	No changes proposed	N/A
Minimum Front Setback	30'	No changes proposed	Yes
Minimum Rear Setback	30'	No changes proposed	Yes
Minimum Side Setback	10'	No changes proposed	Yes

In addition to dimensional standards, included in ZDO 406.07, the TBR district has fire-sitting standards, ZDO 406.08, for new structures to ensure a fuel-break area is maintained. The primary fuel-break standards are included below in Table 406-2 and an example of the safety zone is included as Figure 406-1. Any new structures will need to demonstrate compliance with these standards.

Table 406-2: Minimum Primary Safety Zone

Slope	Feet of Primary Safety Zone	Feet of Additional Primary Safety Zone Down Slope
0%	30	0
10%	30	50
20%	30	75
25%	30	100
40%	30	150

Figure 406-1: Example of Primary Safety Zone



b. ZDO Section 1000 – Development Standards:

Most of the findings and material will be related to the 1000s series which set forth standards for the remodeled structures, parking areas, walkways, lighting, landscaping and other elements customarily associated with a conditional use land use process. Details are included below for those standards that specifically apply, or are routinely missed in land use applications. However, each section of the 1000s would need to be addressed in the submitted land use application.

Definitions from [ZDO 202](#) are included below:

STRUCTURE: Anything constructed or erected, which requires location on the ground or attached to something having a location on the ground.

INSTITUTIONAL USE: The use of land and/or structures for activities such as child care, adult daycare and pre-school facilities, public and private schools, colleges, universities, art, music, trade and other educational and training facilities, convalescent care facilities, nursing homes, hospitals, places of worship, fraternal lodges, municipal and civic buildings, transit centers and park-and-ride facilities, parks, swimming pools and other recreational facilities open to the public or a membership group, senior and community centers, libraries, museums, cemeteries and mausoleums, utility facilities, and similar public and private uses.

Table 1001-1 Applicability of Section 1000.

Type of Development	1002 Protection of Natural Features	1003 Hazards to Safety	1004 Historic Protection	1005 Site and Building Design	1006 Utilities, etc	1007 Roads & Connectivity	1009 Land- scaping	1010 Signs	1011 Open Space and Parks	1012 Lot Size and Density	1013 Planned Unit Develop- ments	1015 Parking and Loading	1017 Solar Access	1021 Solid Waste & Recyclable Material Collection
Partitions														
Subdivisions	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	
Replats														
Institutional	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
Commercial ²	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
Industrial														

Per Table 1000-1 the following 1000s sections apply to the application and must be addressed even if only to say how the section does not apply to the proposed site/use:

- [1002](#) – Protection of Natural Features – The site includes steep slopes and trees on the eastern portion outside of the development area. No significant rivers or stream corridors are located on the site. It does not appear that development will impact any of the significant natural features on the eastern portion of the site.
- [1003](#) – Hazards to Safety – There are steep slopes on the eastern portion of the site. No impact is expected from the proposed work on the sloped area.
- [1004](#) – Historic Protection – No known historic resources on the subject site.
- [1005](#) – Site and Building Design – discussed below
- [1006](#) – Utilities – discussed below
- [1007](#) – Roads and Connectivity – discussed below and included in attachments.
- [1009](#) – Landscaping – How are you going to landscape the lot to comply with the minimum percentage and buffering standards?
- [1010](#) – Signs – Can be included in the application if a sign is proposed.
- [1011](#) – Open Space and Parks – not located in an area identified as an open space or park.
- [1015](#) – Parking and Loading – see attachments and linked code section.
- [1021](#) – Solid Waste & Recycling – Include a letter from the hauler that your plan is suitable for them, or address why no solid waste or recycling will be generated.

Below is a more detailed summary of the standards that will have to be addressed in the application with narrative and evidence.

Section 1006, Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control

- If well water usage is proposed, refer to OWRD to determine if a water right is needed
- [Preliminary statements of feasibility](#) for surface water

Section 1007: Roads and Circulation

- Concurrency, TIA not required – See Engineering notes
- Compliance with the Roadway Standards is required.
 - Improvements to the access is required - See Engineering notes for details.

Section 1009, Landscaping

- Parking lot/vehicular use area landscape strips, islands, swales – No parking lot proposed, a single space is sufficient for use
- Screening (e.g., loading areas, storage areas, parking lots adjacent to residential zones, solid waste receptacles such as dumpsters), buffering (e.g., dissimilar adjacent uses)
 - o Adjacent uses include residential and farm/forest uses. Buffering will be required to mitigate the impact of the industrial use and can be accomplished in several ways listed in ZDO Subsection 1009.04.E.1-4.
 - o Existing vegetation could be used to satisfy screening and landscaping requirements.
- Irrigation and Maintenance guarantee – needed if landscaping is added for screening and buffering requirements, not required for existing vegetation.

Section 1015, Parking and Loading

- OAR 918-460-0200 *Electric Vehicle Charging Station Infrastructure Requirements*
These requirements are implemented by Building Codes, but it's good to flag them for the customer or ask the Building Codes staff member to do so if they attend the pre-app. The requirements apply to new multifamily (5 or more dwelling units), privately owned commercial, or mixed use (privately owned commercial plus 5 or more dwelling units) buildings. The requirement applies to 20 percent of the parking spaces and requires charging infrastructure as specified in the rule but not the actual installation of the chargers.

c. [ZDO Section 1203](#) – Criteria for Conditional Uses:

The Conditional Use Criteria will need to be addressed whether application is processed as a Modification to a Conditional Use or Conditional Use. Since the property is located in the AG/F a farm impact test/analysis request is required. (See ZDO 406.05(A)1 and OAR 660-033-0130)

- **1203.03(B):** The characteristics of the subject property are suitable for the proposed use considering size, shape, location, topography, existence of improvements, and natural features.
- **1203.03(D):** The proposed use will not alter the character of the surrounding area in a manner that substantially limits, impairs, or precludes the use of surrounding properties for the primary uses allowed in the zoning district(s) in which surrounding properties are located
- **1203.03(E):** The proposed use is consistent with the applicable goals and policies of the Comprehensive Plan.

d. Address any relevant Comp Plan policies/maps/OAR requirements (e.g. solar, EFU Type II):

[Chapter 3: Natural Resources and Energy](#)

[Chapter 4: Land Use](#)

II. LAND USE PERMITTING PROCESS

a. Land use applications are not conceptual. At the time of submittal, the applicant is expected to be at final design stage for all of the following that apply to the particular proposal: site plan, building elevations/materials, access location/width and frontage improvements. **This is important because most changes after land use approval, except as necessary to comply with conditions of approval, will require a new land use application.**

b. The recommended land use application(s) is/are:

The application will most likely be a Conditional Use due to the fact new structures are proposed and the original lot coverage will expand more than 25%. However, depending on any updates between now and the date of application or additional information provided by the applicant, a Modification to a Conditional Use permit may be the appropriate path for review. Below is the process for both a Modification to a Conditional Use and a Conditional Use.

A Modification to a Conditional Use is a "Type II" land use application process, as provided for in Section 1307 and 1309 of the ZDO. Type II decisions include notice to owners of nearby land, the Community Planning Organization (if active), service providers (sewer, water, fire, etc.), and affected government agencies. If the application is approved, the applicant must comply with any conditions of approval identified in the decision. The Planning Director's decision can be appealed to the County Land Use Hearings Officer.

- o Application form: [Modification](#)
- o Fee: \$2,251 + \$154 noticing fee
 - o Payable by cash, credit card, or check payable to Clackamas County
 - Credit card payment subject to a 2.75% service fee and must be accompanied by the [Credit Card Authorization Form](#)
- o Timeline:
 - o Completeness review: 30 days; within the first 30 days of the application being submitted, Planning and Zoning will review the application materials to ensure that everything required has been turned in. In the event that there are items missing from the application packet, you will be notified of the specific items missing and information on how you can provide staff with the missing documents/information.
 - o Notice period: 20 days, minimum; once an application is deemed complete the County will send a mailed notice to property owners within 750 feet of the subject property, the CPO and other reviewing agencies. Staff cannot issue a final decision until the minimum 20-day notice period has passed.
 - o Decision: Staff makes every effort to issue a decision within 45 days of being deemed complete; however, State law generally requires a final County decision issued within 120 or 150 days of being deemed complete.

A Conditional Use Permit is a "Type III" land use application process, as provided for in Section 1307 of the ZDO. Type III decisions include notice to owners of nearby land, the Community

Planning Organization (CPO) if active, service providers (sewer, water, fire, etc.) and affected government agencies, and are reviewed at a public hearing before the County Land Use Hearings Officer. If the application is approved, the applicant must comply with any conditions of approval identified in the decision. The County's decision can be appealed to the Oregon Land Use Board of Appeals (LUBA).

- o Application form: [Conditional Use](#)
- o Fee: \$7,956 + \$154 noticing fee
 - o Payable by cash, credit card, or check payable to Clackamas County
 - Credit card payment subject to a 2.75% service fee and must be accompanied by the [Credit Card Authorization Form](#)
- o Timeline:
 - o Completeness review: 30 days; within the first 30 days of the application being submitted, Planning and Zoning will review the application materials to ensure that everything required has been turned in. In the event that there are items missing from the application packet, you will be notified of the specific items missing and information on how you can provide staff with the missing documents/information.
 - o Notice period: at least 35 days prior to the first evidentiary hearing the County will send a mailed notice to surrounding property owners within 2,640 feet, the CPO and other reviewing agencies
 - o Staff report: Planning and Zoning staff will write a staff report and make a recommendation to the Hearings Officer. This report is available to the public for review at least one week prior to the hearing.
 - o Public hearing: A public hearing is held with the Hearings Officer for the purpose of receiving testimony regarding the application.
 - o Decision: The decision authority is the Hearings Officer. The Hearings Officer will issue a decision based on the applicable standards and criteria within 3 weeks of when the record closes. State law generally requires a final County decision issued within 120 or 150 days of being deemed complete.

III. MINIMUM LAND USE APPLICATION SUBMITTAL REQUIREMENTS

The submittal requirements are provided in ZDO 1307.07(C), ZDO 406.05(A)1 and 1203. In addition, review the applicable criteria listed above while preparing your written narrative and other land use application items. It is the applicant's responsibility to clearly demonstrate how a proposal meets all applicable criteria.

IV. AGENCY/DEPARTMENT CONTACT INFORMATION: **This list is provided for the applicant to follow up with relevant service providers, agencies, Community Planning Organization and County staff as needed.*

Contact	Invited to Pre-App	Attended Pre-App
Georgia McAlister, Senior Planner, gmcaster@clackamas.us , 503-742-4521	Yes	Yes
Ken Kent, Development Engineering, KenKen@Clackamas.us, 503-742-4673	Yes	Yes
Fire District #1, Clackamas County, engineering@clackamasfire.com	Yes	No

Travis Wright	TWright@clackamas.us	Yes	Yes
CPO-Redland/Viola/Fischer's Mill, Lance Ward, lancecward@aol.com		No	-

**Community Planning Organizations (CPOs) are part of the county's community involvement program. They are advisory to the Board of County Commissioners, Planning Commission and Planning and Zoning Division on land use matters affecting their communities. CPOs are notified of proposed land use actions and decisions on land within their boundaries and may review these applications, provide recommendations or file appeals. You are encouraged to contact the CPO and attend any meeting they may hold to discuss your application.*

V. LIMITATIONS AND DISCLAIMERS

Pre-application conferences are advisory and are intended to familiarize applicants with the requirements of the ZDO, provide applicants with an opportunity to meet with staff and discuss proposed projects in detail, and identify standards, criteria, and procedures prior to filing a land use permit application. The pre-application conference is a tool to orient applicants and to assist them in navigating the land use review process. It is not an exhaustive review that identifies or resolves all potential issues and does not bind or preclude the County from enforcing all applicable regulations or from applying regulations in a manner differently than may have been indicated at the time of the pre-application conference.

The information in this document is introductory and is designed to act as a guide to relevant Zoning and Development Ordinance (ZDO) and Comprehensive Plan standards. This is an initial review and is based on the information submitted by the applicant for the pre-application conference.

Any opinion or advice provided herein is informational only, and is based on any information specifically provided or reasonably available, as well as any applicable regulations in effect on the date the research was conducted. Any opinion or advice provided herein may be revised, particularly where new or contrary information becomes available, or in response to changes to state law or administrative rule, future legislative amendments of the Zoning and Development Ordinance, decisions of courts or administrative tribunals, or quasi-judicial land use decisions.

This is not a land use decision as defined by Oregon Revised Statutes 197.015(10).



DAN JOHNSON
DIRECTOR

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

All information is considered informal, based on current Zoning and Development Ordinance requirements, current Roadway Standards requirements, and current Comprehensive Plan requirements. The information presented here is subject to change as revisions are made to the aforementioned documents and in the formal Land Use Process. Prior to the submittal of a land use application, the applicant is encouraged to contact staff to ensure that these pre-application comments reflect the current standards.

FILE NO. ZPAC0133-25

PROJECT: PGE Substation Improvement

LEGAL: 32E12A 00301

DATE: February 5, 2026

MEETING DATE: December 16, 2025

Engineering staff: Kenneth Kent 503-742-4673
kenken@co.clackamas.or.us

1. A **Development Permit** will be required from the County Engineering Section prior to initiation of construction. The applicant shall pay the minimum Permit fee deposit (\$2,500) for commercial/industrial/multi-family development. The plan review and inspection fee is based upon 8.83 percent of the estimated costs for public street frontage improvements and 5 percent of the estimate costs of the onsite transportation improvements. These plans shall be signed and stamped by a Professional Engineer registered in the State of Oregon or shall comply with requirements acceptable to the Engineering Division.
2. **Access:**
 - a. A 20-foot wide by 20 foot long paved approach will be required at the intersection with SE Northend Road/S Grasle Road, constructed per Standard Drawing D500.
 - b. The access to the site will require a minimum 12-foot wide gravel road, constructed per Roadway Standards Drawing R100.
 - c. Provide verification of the access easement serving the site.
 - d. The applicant shall provide adequate on site circulation areas for the parking and maneuvering of all vehicles anticipated to use the site. On-site turnaround area shall be provided as required by the fire marshal, constructed and/or meeting the dimensions of Standard Drawing C350. On-site vehicle access shall be constructed per Roadway Standards Drawing R100, with a minimum surface of screened gravel or better.

- e. Provide stormwater management plan for the additional gravel/impervious surface added to the site, per Chapter 4 of the Roadway Standards. Stormwater water management plans in conformance with this chapter are required when 10,000 square feet or more of new or reconstructed impervious surface is proposed outside the Urban Growth Boundary (UGB). In addition, when an acre or more is disturbed outside the UGB, a 1200-C permit is required from Oregon DEQ. Where a stormwater management plan is not required the site plan will be required identify the control of stormwater to avoid erosion and impact to adjacent properties.

3. **Permitting:**

Prior to the issuance of a building permit and/or site development, the applicant shall submit to Clackamas County Engineering Office:

- a. Written approval from the Clackamas Fire District #1 Fire Marshal for the planned access, circulation, fire lanes and water source supply, as applicable. The approval shall be in the form of site and utility plans stamped and signed by the Fire Marshal.
- b. Written approval from the Clackamas County Engineering for surface water management facilities and erosion control measures.
- c. A set of street and site improvement construction plans, in conformance with *Clackamas County Roadway Standards* Section 140, to Clackamas County's Engineering Office and obtain written approval, in the form of a Development Permit.

Memorandum

RECEIVED



To: Joy Fields, Clackamas County Planning

From: Ben Schonberger, AICP

Date: August 10, 2026

Re: Completeness Response, #Z0253-26

Aug 10 2026

**Clackamas County
Planning & Zoning Division**

On July 29, 2026, Clackamas County issued an incomplete letter, requesting additional materials for Case #Z0253-26, an application requesting improvements to an existing electrical substation facility. The following memorandum responds to this letter and summarizes additional materials provided for this application.

"A. Transmission Tower Location - The narrative identified a power pole would be installed at 17502 S North End Road. This pole will be placed 45 feet to the east of the Substation. However, this pole does not appear to be in the site plan."

Response: The pole east of the substation described in the narrative is not needed for the project and has been removed from the description in the revised narrative/findings. A current set of drawings for the application is included as an attachment to this memo.

"B. An evaluation of reasonable alternatives – The narrative identifies that the substation is existing and thus the use is locationally dependent as the substation is upgraded. However, there are proposed changes to the overhead transmission lines that connect to the substation and the application does not appear to provide an evaluation of potential alternative locations for the associated transmission lines such as the RRFF-5 zoned land to the north that would avoid the mass movement hazards and farmland. The southernmost pole appears to be on, or outside, of the existing transmission easement. No information on what the duct bank is and how it is related to the utility facility was provided so an evaluation on alternative locations for the duct bank is needed. No information was provided on what the alternatives were and why the alternatives would be "far-fetched". (ORS 215.275(2) and OAR 660-033-130 (16)(A))"

Response: The statement in the section quoted above acknowledges that the substation itself, which is a graveled and fenced-in area of more than an acre, is locationally dependent. The County requests additional information about the overhead power lines and the duct bank. The transmission of power to this substation is a fundamental element of this project and the associated wires and poles that support it are fixed in space around the longstanding substation use. Relocating the existing substation to another property, while subsequently relocating all of the connecting powerline infrastructure leading to it and from it, is plainly infeasible and would have vastly greater impacts on other, surrounding resource lands.

To understand the locational dependency of the infrastructure outside the fence of the substation, some background is useful. Power leaves the substation via distribution lines, sometimes overhead, and sometimes underground. The duct bank is a group of conduits installed underground, in this case surrounded by backfill, to route electrical distribution cables between infrastructure such as switchgear, transformers, and buildings. Placing some of these conductors below grade protects them from physical damage and severe weather, reduces fire risk, and keeps the site accessible for other uses. The underground duct bank proposed from the substation downhill to S. Henrici Road is composed of lower voltage distribution lines. Its relation to the utility facility is that it is the conduit for transmitting power from the substation after it has been transformed to a usable, lower voltage.

Both existing and proposed transmission lines, conversely, are located above-ground. As demonstrated in the site plan and shown on the photo on the cover page of the narrative, the area in and around the existing substation has numerous above-ground transmission poles. Nearby BPA power lines and their supporting structures are unrelated to this proposal, but also carry high voltage power.

The basic geometry of site layout for substation work is the need for transmission lines feeding power to the substation need to come from existing sources. Those sources are existing and longstanding power lines south of the substation, in the same vicinity as the BPA power lines. New transmission wires and poles are a very short run from existing ones close to the BPA lines to the substation, along approximately the same path as existing transmission lines. This nearly one-for-one replacement creates no change in impacts to the AG/F land. Because both the existing transmission and the existing substation are on AG/F zoned property, there is functionally no alternative that would allow replacement wires and poles to serve the same function and be moved to differently zoned land.

After being “dialed down” by substation transformers, the lower voltage power then moves from the substation via distribution lines, or “feeders,” east to connect with existing wires along S. Henrici Road, and also north to existing wires along S. Grasse Road and S. North End Road. Because the location of the substation and the supporting infrastructure that feeds into and out of it is fixed, there are strong limitations on moving any of the major elements of the project. This includes the transmission lines going in and the distribution lines going out, which includes the subsurface duct bank.

Exploring alternatives, property north of the substation is zoned RRFF-5, which is not a resource designation. However, land immediately to the north is fully developed with residential uses. Insofar as it is possible to consider an alternative that would route distribution lines across these properties, either above or below ground, it would require significant tree removal, changes to residential structures, and extreme disruption to neighbors. Unlike the proposed route, PGE also has no control or easements over this land. Likewise, because of the natural topography, connecting the substation, which is at approximately 400 feet elevation, and the existing infrastructure in S. Henrici Road, which is at approximately 200 feet elevation, involves a significant change of grade that simply cannot be avoided.

Most critically, all the property along the west side of S. Henrici Road is zoned AG/F. There is no reasonable alignment between the substation and S. Henrici Road that does not also require disturbance to AG/F zoned property. In the currently proposed alternative, the duct bank touches land that is not used for farming or forestry, is on an alignment that is already being used for utility transmission, requires no tree removal, and is controlled by PGE. None of these advantages are true of alternative alignments.

An alternative that routed the duct bank along north side of the existing PGE property line, on neighboring property (call this “Alternative B”), would create massive disruption to that neighbor, require extensive tree removal, and still, closer to S. Henrici Road, create new impacts on other AG/F zoned land. An alternative that routed the distribution lines even farther north, to follow a different BPA easement (call this “Alternative C”), would create significant new distance for these lines to travel, and likewise still create new impacts on AG/F land along the west side of S. Henrici Road. This hypothetical alternative alignment is thousands of feet longer than the existing and proposed route, which fails to meet the “reasonably direct route” standard in OAR 660-033-130(16)(A).

In short, the alignment for replacement transmission poles and lines, and new distribution/feeder lines, including the subsurface duct bank, results from highly-constrained conditions related to the locationally-dependent substation use. Other alternatives were considered, including routing transmission and distribution lines across nearby property with different zoning. However, none of these alternatives are practicable due to the unique geographical needs of a reasonably direct route between the substation and S. Henrici Road, and the technical challenges of these out-of-direction alignments.

“C. The narrative states: “A utility facility is a permitted use in the AG/F zone, according to the recently approved legislative amendment (Clackamas County Planning File ZDO-293)”. The Board of County Commissioners has not adopted the ordinance and the draft code included in ZDO 293 is not currently effective. We anticipate that the AG/F provisions of the code amendments will be adopted and become effective in September. Please let us know if you would authorize us to review your application against the amended code when it becomes effective in September.”

Response: The Board of County Commissioners adopted the final ordinance referenced above on August 6, and the code is now in effect. The applicant authorizes the County to review the application against the code that is now effective and was part of the legislative amendments in ZDO 293.

“D. The narrative indicates that PGE has the authority to add transmission poles outside the bounds of the property described and recorded in 1973. However copies of these Transmission Easements (Dated September 26, 1957; recorded in Clackamas County Book 530, Page 588 and Book 531, Page 487) were not provided. Please provide copies of these easements for the file.”

Response: The easement documents described in the quoted section above are included as part of the packet of materials included with this submittal.

U.O. 26 9/13/87
Optim\$250.00
25.00
\$275.00

Audit # 16738

BOOK 531 PAGE 487

KNOW ALL MEN BY THESE PRESENTS, That Calvin D. Randolph and Ruth N. Randolph

(hereinafter called "the Grantors," whether one or more than one), for and in consideration of the payment of the sum of

Ten and no/100ths-----Dollars (\$ 10.00),

the receipt of which is hereby acknowledged, hereby grant, sell and convey to Portland General Electric Company, an Oregon

Corporation, (hereinafter called "the Grantee"), its successors and assigns, a perpetual easement and right of way over, under

and across the following described parcel of land situated in ClackamasCounty, Oregon, being a strip of land 100 feet in width, extending 50 feet on each

side of a center line more particularly described as follows:

Beginning at a point in the east line of the land of the grantors described in Book 503 on Page 189 and Book 504 on Page 343 Records of Deeds of Clackamas County, Oregon and being situate in Section 12, T3S, R2E, W.M., said county, said point being on the centerline of Linn Road (Clackamas Co. Rd. No. 103) south, along the west line of the northeast quarter of the northeast quarter of Sec. 12, 399.95 feet and N 88° 23' E 82.68 feet from the northeast corner of the northwest quarter of the northeast quarter of Sec. 12; thence, from said beginning point, over and across the land of the grantors, 50 feet northerly of measured at right angles to and parallel to the northerly right of way line of the Bonneville Power Administration's right of way, S 88° 23' W 688.68 feet to a point in the west line of the grantors' land, said last mentioned point being west 605 feet along the north line of Sec. 12 and south 129.30 feet along the grantors' west line from the northeast corner of the northwest quarter of the northeast quarter of Sec. 12; EXCEPTING therefrom the portions thereof lying and being within the boundaries of county road; said center line is shown colored red on the map attached hereto which by reference thereto is made a part hereof.

TO HAVE AND TO HOLD the above described easement and right of way unto the Grantee, its successors and assigns, together with the present and future right to top, limb or fell all growing and dead trees and snags (said trees and snags hereinafter collectively called "danger trees") located on land owned by the Grantors, adjacent to the above described right of way, which danger trees will be determined by the Grantee. The consideration paid for this easement includes the value of all trees on the right of way and all danger trees adjacent to said right of way. The Grantee shall pay the person who is the owner of future danger trees at the date of their cutting (in addition to the purchase price herein agreed to) the market value of said future danger trees at the date of their cutting under authority of the Grantee, such payment to be made within a reasonable period of time after they have been so cut.

Said easement and right of way shall be for the following purposes, namely: the perpetual right to enter upon and to erect, maintain, repair, rebuild, operate and patrol two line(s) of electric power transmission structures and appurtenant signal lines, including the right to erect such poles, towers, transmission structures, wires, cables, guys, supports and appurtenances as are necessary thereto, together with the present and future right to clear said right of way and keep the same clear of brush, timber, structures and fire hazards, provided that fire hazards shall not be interpreted to include any growing crops other than trees.

It is hereby agreed by the Grantors that, (1) title to all brush, timber, or structures existing upon the right of way and to all present danger trees shall vest immediately in the Grantee; (2) all future danger trees cut pursuant to the terms hereof shall remain the property of the owner thereof on the date of their cutting.

The Grantors hereby acknowledge that the purchase price named herein is accepted by the Grantors as full compensation for all damages incidental to the exercise of any of said easements, loss of growing crops on right of way during construction, for guys and anchors extending beyond the right of way and danger trees rights, except payment for any additional danger trees as defined hereinabove which may be cut under authority of the Grantee as provided hereinabove.

If the Grantee, its successors and assigns, shall fail to use said right of way for the purposes above mentioned for a continuous period of five years after construction of said power lines, then and in that event this right of way and easement shall terminate and all rights and privileges granted hereunder shall revert to the Grantors, their heirs and assigns.

The Grantors hereby warrant that they are possessed of a marketable title to the property covered by this easement, and have the right to grant the same.

The Grantors, for themselves and their heirs and assigns, covenant to and with the Grantee, its successors and assigns, that the Grantee, its successors and assigns, shall peaceably enjoy the rights and privileges herein granted.

IN WITNESS WHEREOF, the Grantors have caused this easement to be executed this 26th day ofSeptember, 195 7.Calvin D. Randolph (SEAL)Ruth N. Randolph (SEAL)

(SEAL)

(SEAL)

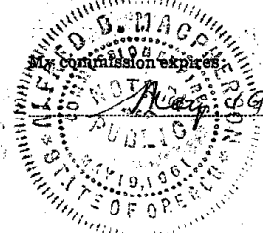
BOOK 531 PAGE 488

STATE OF OREGON,
County of Clatsop } ss.

On this 26 day of September, 1957, before me, the undersigned, a Notary Public in
and for said County and State, personally appeared Calvin D. Randolph and Ruth N. Randolph

to me known to be the individuals described in and who executed the same freely and voluntarily for the purposes and uses
aforementioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal this, the day and year in this
instrument first written.



Alfred B. MacPherson
Notary Public for Oregon

STATE OF OREGON,
County of _____ } ss.

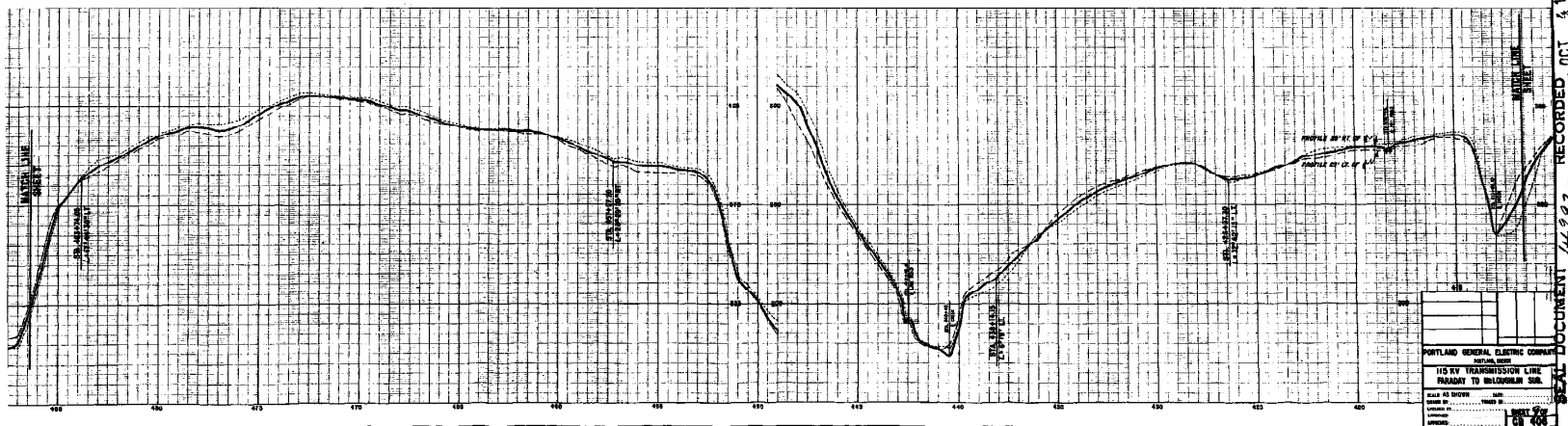
On this _____ day of _____, 19____, before me, the undersigned, a Notary Public in
and for said County and State, personally appeared _____

to me known to be the individuals described in and who executed the same freely and voluntarily for the purposes and uses
aforementioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal this, the day and year in this
instrument first written.

My commission expires:

Notary Public for Oregon



55

14992

PHOTOSTAT

16738

STATE OF OREGON, } ss.
County of Clackamas,

I, Guy H. Pace, County Clerk, Ex-Officio Recorder of Conveyances and Ex-Officio Clerk of the Circuit Court of the State of Oregon, for the County of Clackamas, do hereby certify that the within instrument of writing was received for record and recorded in the records of

~~DEED~~

of said County at

1957 OCT 4 PM 2 10

In Book

BOOK

531 PAGE 487

Witness my hand and seal of said Court
affixed. GUY H. PACE,
County Clerk,

Mayville Hagan
Deputy.
Recording Certificate 219 25 OCT 1957

RETURN TO

Portland General Electric Company
Electric Building,
Portland 5, Oregon

I RELAN

AUDIT NO. 16738	
DATE SEPTEMBER 26, 1957	
NAME RANDOLPH, CARL W. D.	
T. RUTH N.	
LOCATION SEC. 12, T. 33, R. 2E.	
D32-12	
COUNTY CLACKAMAS	DOCUMENT COVERS EASEMENT FOR
FRANKLY McLOUGHLIN SR.	
TRANSMISSION LINE.	
RENTAL	
EXPIRES	

D32-12-P2

D32-12-P2

PGE REAL PROPERTY DOCUMENT INDEX SUMMARY

PGE AUDIT NO. 16657-00			CONFIDENTIAL ☐ YES ☒ NO			DATE 7/2/2013		
RECORD INFORMATION					LAND DOCUMENT TYPE (check one)			
DOCUMENT DATE 9/10/1957					☐ CONTRACT ☐ DEED ☐ LEASE ☐ LICENSE ☐ OTHER LAND DOC. (mortgage, sale, resolution, covenant, etc.) EASEMENT ☐ DISTRIBUTION ☐ RELEASE ☒ TRANSMISSION ☐ OTHER: _____ (OH, UG, anchor, utility, aerial, road, etc.) PERMIT ☐ CORPS OF ENGINEERS ☐ HIGHWAY (ODOT) ☐ U.S. FOREST SERVICE ☐ RAILROAD ☐ OTHER: _____ (agricultural, BPA, etc.)			
EXPIRATION DATE								
DRAWING NO. CB-406								
LAND NO.								
COUNTY (County only inside OR; state only outside OR) Clackamas			STATE OR					
PLAT MAP I.D. (e.g., D21-17) D32-12								
TOWNSHIP / RANGE / SECTION (e.g., T1N R2E 23) T3S R2E 12								
PARTIES TO AGREEMENT								
PARTY Spees, Geroge E					PARTY			
ADDRESS					ADDRESS			
PARTY					PARTY			
ADDRESS					ADDRESS			
COMMENTS / KEY WORDS Easement for Faraday-McLoughlin Sub Transmission Line / Book 530, page 588 09.17.1957								
PURPOSE OF AGREEMENT								
CONTRACTING OFFICER			STAFF CONTACT			DEPARTMENT 791		
* TOTAL CONTRACT VALUE \$ 0 If value is zero, please mark as "0"					PAYMENT TERMS & CONDITIONS			
ACCOUNTING DISTRIBUTION								
BU	OU	ACCT	CE	DEPT	AWO	FWO		
ROUTING								
SEND <u>ORIGINAL</u> AGREEMENT with this <u>ORIGINAL</u> DOCUMENT SUMMARY to: RIM, 3WTC0104 WITHIN 5 DAYS of document signing.								

Audit # 16657

BOOK 530 PAGE 588

KNOW ALL MEN BY THESE PRESENTS, That George E. Spees, a single man

(hereinafter called "the Grantors," whether one or more than one), for and in consideration of the payment of the sum of

Ten and no/100ths Dollars (\$10.00),

the receipt of which is hereby acknowledged, hereby grant, sell and convey to Portland General Electric Company, an Oregon

Corporation, (hereinafter called "the Grantee"), its successors and assigns, a perpetual easement and right of way over, under

and across the following described parcel of land situated in Clackamas

County, Oregon, being a strip of land 100 feet in width, extending 50 feet on each

side of a center line more particularly described as follows:

Beginning at a point in the east line of the land of the grantor described in Book 205 on Page 299 Records of Deeds of Clackamas County, Oregon, and being situate in Section 12, T3S, R2E. W.M., said county, said point being west 605 feet along the north line of Section 12 and south 429.30 feet along the grantor's east line from the northeast corner of the northwest quarter of the northeast quarter of Sec. 12; thence, from said beginning point, over and across the land of the grantor, 50 feet northerly of measured at right angles to and parallel to the northerly right of way line of the Bonneville Power Administration's right of way, S 88° 23' W 683.7 feet to a point in the west line of the land of the grantor, said last mentioned point being south 462.6 feet, along the north and south centerline of Sec. 12, from a stone at the 1/4 corner between Sections 1 and 12, T3S, R2E. W.M./ said center line is shown colored red on the map attached hereto which by reference thereto is made a part hereof.

TO HAVE AND TO HOLD the above described easement and right of way unto the Grantee, its successors and assigns, together with the present and future right to top, limb or fell all growing and dead trees and snags (said trees and snags hereinafter collectively called "danger trees") located on land owned by the Grantors, adjacent to the above described right of way, which danger trees will be determined by the Grantee. The consideration paid for this easement includes the value of all trees on the right of way and all danger trees adjacent to said right of way. The Grantee shall pay the person who is the owner of future danger trees at the date of their cutting (in addition to the purchase price herein agreed to) the market value of said future danger trees at the date of their cutting under authority of the Grantee, such payment to be made within a reasonable period of time after they have been so cut.

Said easement and right of way shall be for the following purposes, namely: the perpetual right to enter upon and to erect, maintain, repair, rebuild, operate and patrol two line(s) of electric power transmission structures and appurtenant signal lines, including the right to erect such poles, towers, transmission structures, wires, cables, guys, supports and appurtenances as are necessary thereto, together with the present and future right to clear said right of way and keep the same clear of brush/limber, structures and fire hazards, provided that fire hazards shall not be interpreted to include any growing crops other than trees.

It is hereby agreed by the Grantors that, (1) title to all brush, timber, or structures existing upon the right of way and to all present danger trees shall vest immediately in the Grantee; (2) all future danger trees cut pursuant to the terms hereof shall remain the property of the owner thereof on the date of their cutting.

The Grantors hereby acknowledge that the purchase price named herein is accepted by the Grantors as full compensation for all damages incidental to the exercise of any of said easements, loss of growing crops on right of way during construction, for guys and anchors extending beyond the right of way and danger trees rights, except payment for any additional danger trees as defined hereinabove which may be cut under authority of the Grantee as provided hereinabove.

If the Grantee, its successors and assigns, shall fail to use said right of way for the purposes above mentioned for a continuous period of five years after construction of said power lines, then and in that event this right of way and easement shall terminate and all rights and privileges granted hereunder shall revert to the Grantors, their heirs and assigns.

The Grantors hereby warrant that they are possessed of a marketable title to the property covered by this easement, and have the right to grant the same.

The Grantors, for themselves and their heirs and assigns, covenant to and with the Grantee, its successors and assigns, that the Grantee, its successors and assigns, shall peaceably enjoy the rights and privileges herein granted.

IN WITNESS WHEREOF, the Grantors have caused this easement to be executed this 10th day of

September, 195 7

George E. Spees (SEAL)

(SEAL)

(SEAL)

(SEAL)

STATE OF OREGON,
County of Clackamas } ss.

On this 10th day of September, 1957, before me, the undersigned, a Notary Public in

and for said County and State, personally appeared George E. Spees

to me known to be the individuals described in and who executed the same freely and voluntarily for the purposes and uses
aforementioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal this, the day and year in this
instrument first written.

My commission expires:

May 19, 1961

Alfred B. Mayshew
Notary Public for Oregon

STATE OF OREGON,
County of _____ } ss.

On this _____ day of _____, 19____, before me, the undersigned, a Notary Public in

and for said County and State, personally appeared _____

to me known to be the individuals described in and who executed the same freely and voluntarily for the purposes and uses
aforementioned.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal this, the day and year in this
instrument first written.

My commission expires:

Notary Public for Oregon

D32-12-P1

D32-12-P1

AUDIT NO.	16657
DATE	SEPTEMBER 10, 1957
NAME	SPEES, GEORGE E.
LOCATION	SEC. 12, T. 3S, R. 2E.
	D32-12
COUNTY	CLACKAMAS
DOCUMENT CLASS	AGREEMENT FOR PARADAY-MCLOUGHLIN SUB. TRANSMISSION LINE
RENTAL	
EXPIRES	

13984

STATE OF OREGON, ss.
County of Clackamas,

I, Guy H. Pace, County Clerk, Ex-Officio Recorder of Conveyances and Ex-Officio Clerk of the Circuit Court of the State of Oregon, for the County of Clackamas, do hereby certify that the within instrument of writing was received for record and recorded in the records of

DEED of said County at

1957 SEP 17 PM 3 42

In Book 530 On Page 588

Witness my hand and seal of said Court
affixed. GUY H. PACE,
County Clerk,

Lorence Corey
Deputy
Recording Certificate 21W 3 58 OCPAS 1287

RETURN TO
Portland General Electric Company
Electric Building



AECOM
888 SW 5th Ave, Suite 600
Portland, OR 97204
aecom.com

Project name:
Redland Substation Rebuild

Project ref:
Clackamas County ZPAC0133-25

From:
Chloe Bowman, EIT, AECOM
Meredith Cote, PE, AECOM
Greg Swenson, AECOM

Date:
August 3, 2026

To:
Elliott Steck, Project Manager
Portland General Electric
121 SW Salmon Street – 1WTC0401
Portland, Oregon 97204
Elliott.Steck@pgn.com

Memo

Subject: Surface Water Management

1. Project Data

Applicant:	Portland General Electric Company (PGE)
Address:	Redland Substation is located at 17502 S. North End Road in unincorporated Oregon City, Clackamas County, Oregon, see Figure 1
Legal Description:	Clackamas County Assessor describes the substation property as tax lot 301 on map 3 2E 12A
Zoning:	Clackamas County Zoning and Development Code (ZDO) specifies that the property occurs within the Agriculture / Forest zone
County Pre-Application History:	Pre-Application Conference Summary was provided on December 30, 2025 under file number ZPAC0133-25. Pursuant to ZDO Section 1006, a Preliminary Statement of Feasibility for surface water management, treatment, and conveyance is required. This memo

2. Project Overview

Due to increased population, PGE's Redland Substation has become increasingly overloaded and is in need of upgrades. These upgrades will provide additional capacity as well as the opportunity to replace ageing transformers and communication systems at the site. This work will include replacing the gravel driveways to the substation, and the construction of new gravel access roads and gravel pads just south of the substation, see [Figure 2](#). The new and replaced impervious areas add up to 29,554 SF, which will trigger a stormwater analysis, further described in this memo.



Figure 1. Project Location



Figure 2. New and Replaced Impervious Area

2. Codes and Requirements for Stormwater Management

2.1 Clackamas County Zoning and Development Ordinance Codes

This project is within Clackamas County and shall follow Clackamas County ZDO codes. Per Clackamas County ZDO 1203.02, a Surface Water Management Preliminary Statement of Feasibility in accordance with Section 1006 is required. Section 1006.06 of Clackamas County ZDO states that a surface water management plan is required. The plan shall include methods to minimize the amount of pollutants created from proposed development and shall follow elements required by the surface water management authority. Surface water management requirements from the Clackamas County Roadway Standards will apply to this project per Clackamas County ZDO 1006.06B. At the request of the client, a stormwater memo was prepared to summarize overall findings for the stormwater management approach.

2.2 Clackamas County Roadway Standards

The Clackamas County online interactive Map (CMap) shows that the project location is outside of the Urban Growth Boundary (UGB). And since the new plus replaced impervious surfaces for the proposed project is greater than 10,000 SF, per Clackamas County Roadway Standards, Section 1302.4.5, stormwater management standards in accordance with Chapter 4 are required. Per Chapter 4 of the Clackamas County Roadway Standards, Section 4.10.2, engineering has adopted the Water Environment Services (WES) stormwater standards. However, if any conflicts arise between the WES standards and the standards listed under Section 420 of Clackamas County Roadway standards, Clackamas County Roadway standards will govern.

2.3 Water Environment Services (WES) Stormwater Standards

Since the development and redevelopment creates greater the 5,000 SF of impervious surfaces, per the minimum requirements laid out in Section 2.3 of the WES Stormwater Standards, for the proposed project requires a submittal of a Preliminary Site Plan (covered in this memo, see Section 2.1.), a design of the selected Stormwater Management Facility (SMF) that meets flow control and water quality performance standards, and an Operations and Management Plan for the SMFs to ensure long-term functionality.

Allowable SMFs approved by the district are included in Section 6.3.1 of the WES stormwater Standards, under Table 5. These facilities are the preferred strategies to meet both flow control and water quality treatment to meet stormwater management requirements (WES, 2023 p.58).

Sheet Flow Dispersion is one of the simplest methods of stormwater management and is an approved SMF listed in Table 5. Since flows already evenly disperse at the site, only a narrow band of adjacent vegetation is needed for effective flow attenuation and treatment. In order to use sheet flow dispersion for this project site, requirements laid out in Section 6.5.11 of the WES Stormwater Standards must be met, these requirements are justified below.

The Clackamas County Map (CMap) shows that the project area is not in a flood zone. The Statewide Landslide Information Layer for Oregon (SLIDO) map shows that the project area is not within a landslide inventory boundary. The project site is assumed to not be contaminated, not located on an abandoned landfill, and not near septic systems. The top 10 feet of the dispersion area was measured in CAD using existing topography and are not greater than 25%. Dispersion areas shall be protected so they do not get compacted during construction. The proposed impervious surfaces should be sloped 15% or less to meet sheet flow dispersion. Using GIS imagery, see **Figure 1**, the dispersion areas are well-established with lawn or native vegetation with natural groundcover. It is assumed that no erosion or flooding will occur on downstream properties due to the sheet flow dispersion SMF.

3. Stormwater Management Facility (SMF)

3.1 SMF Design

Per section 6.5.11 in the WES Stormwater Standards, a 2-ft-wide transition zone between the impervious area and dispersion area is required. The transition zone can be an extension of subgrade material (crushed rock), modular pavement, drain rock, or other materials approved by the district. The dispersion area or vegetated area should be 10-feet-wide for up to 20 feet of contributing impervious area, with an addition 5 feet added to the width for each additional 20 feet width of contributing impervious area. See **Figure 3** for transition zone and dispersion areas. Dimensions are based off the criteria described above and are placed based on the proposed impervious area grading. Per ZDO 1003.02(D), transition and dispersion zones are not placed on slopes 20% and steeper.



Figure 3. Sheet Flow Stormwater Management Facility.

3.1 Operations and Management (O&M) Plan for Sheet Flow Dispersion

Sheet Flow Dispersion does not match any of the SMFs listed in Appendix B of the WES Stormwater Standards, so per Section 9.2.1, the Engineer shall be responsible for creating drawing, maintenance specifications, and an inspection checklist for the Operation and Maintenance Plan.

4. Sources

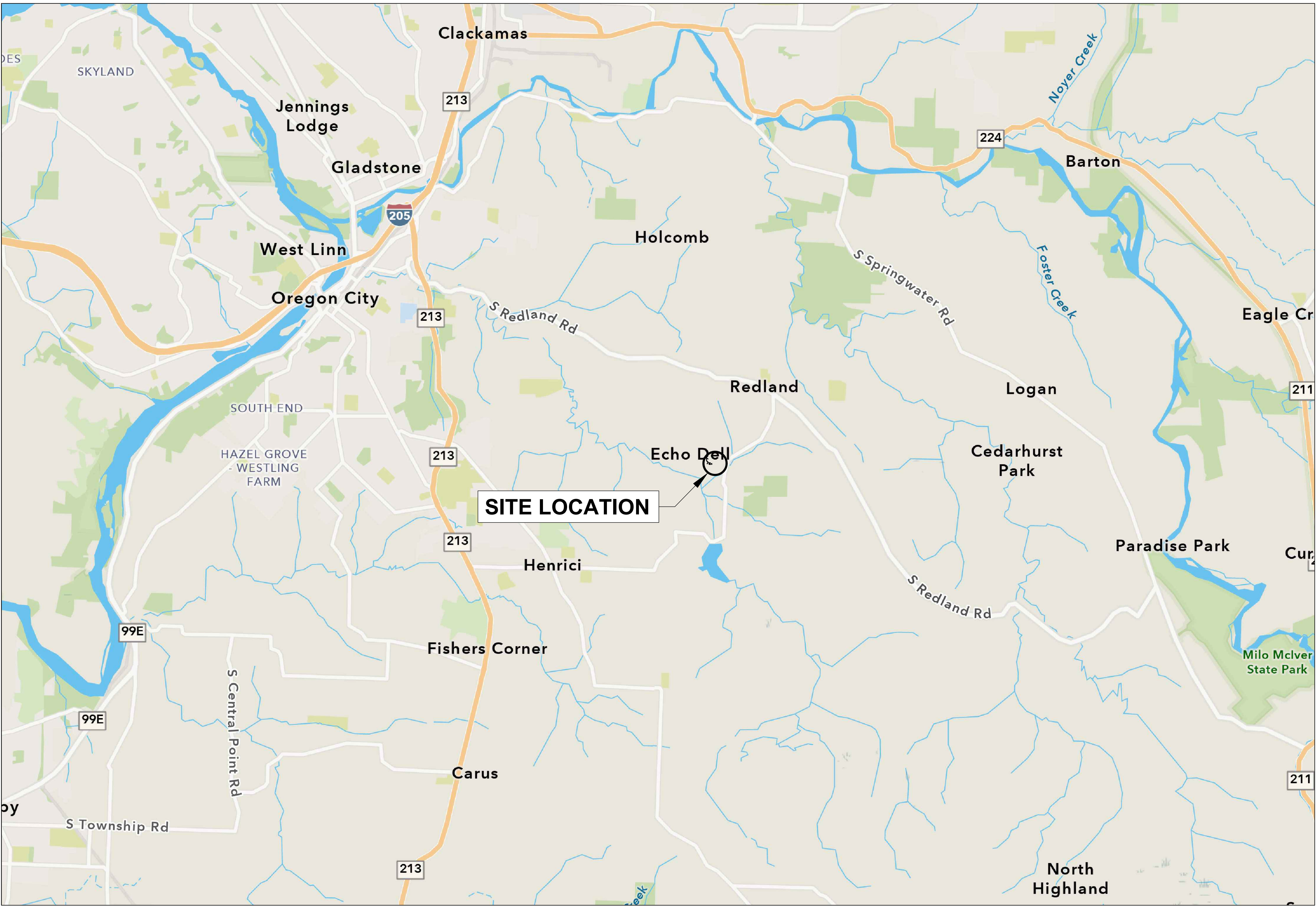
Clackamas County. 2020. *Clackamas County Roadway Standards*. Department of Transportation and Development Engineering, Development Services, and Transportation Maintenance. [fc5951b3-7eab-424c-a4d2-b484220a3ffb](#)

Clackamas County. 2026a. *Zoning and Development Ordinance*. <https://www.clackamas.us/planning/zdo>

Clackamas County. 2026b. *Clackamas Maps*. [Clackamas County](#)

Oregon Department of Geology and Mineral Industries. 2026. *Statewide Landslide Information Layer for Oregon*. [SLIDO: Statewide Landslide Information Layer for Oregon](#)

Water Environment Services. 2023. *Water Environment Services Stormwater Standards*. Clackamas County. [dochub.clackamas.us/documents/drupal/8d85190a-fd37-4c24-a2c6-e26026b7dae8](#)



PRELIMINARY

0 1500 3000

AS SHOWN ON THIS MAP, ALL MEASUREMENTS ARE IN FEET AND DECIMALS THEREOF. THIS MAP IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

N

DATE	08/03/26	VERSION	1.5	DESIGNED BY	HH	DRAWN BY	HH	CHECKED BY	GS	PROJECT NO.	60782576	SCALE	1" = 3000'	DRAWN FOR	PERMIT SET

PORTLAND GENERAL ELECTRIC
REDLAND SUBSTATION REBUILD
VICINITY MAP

PGE

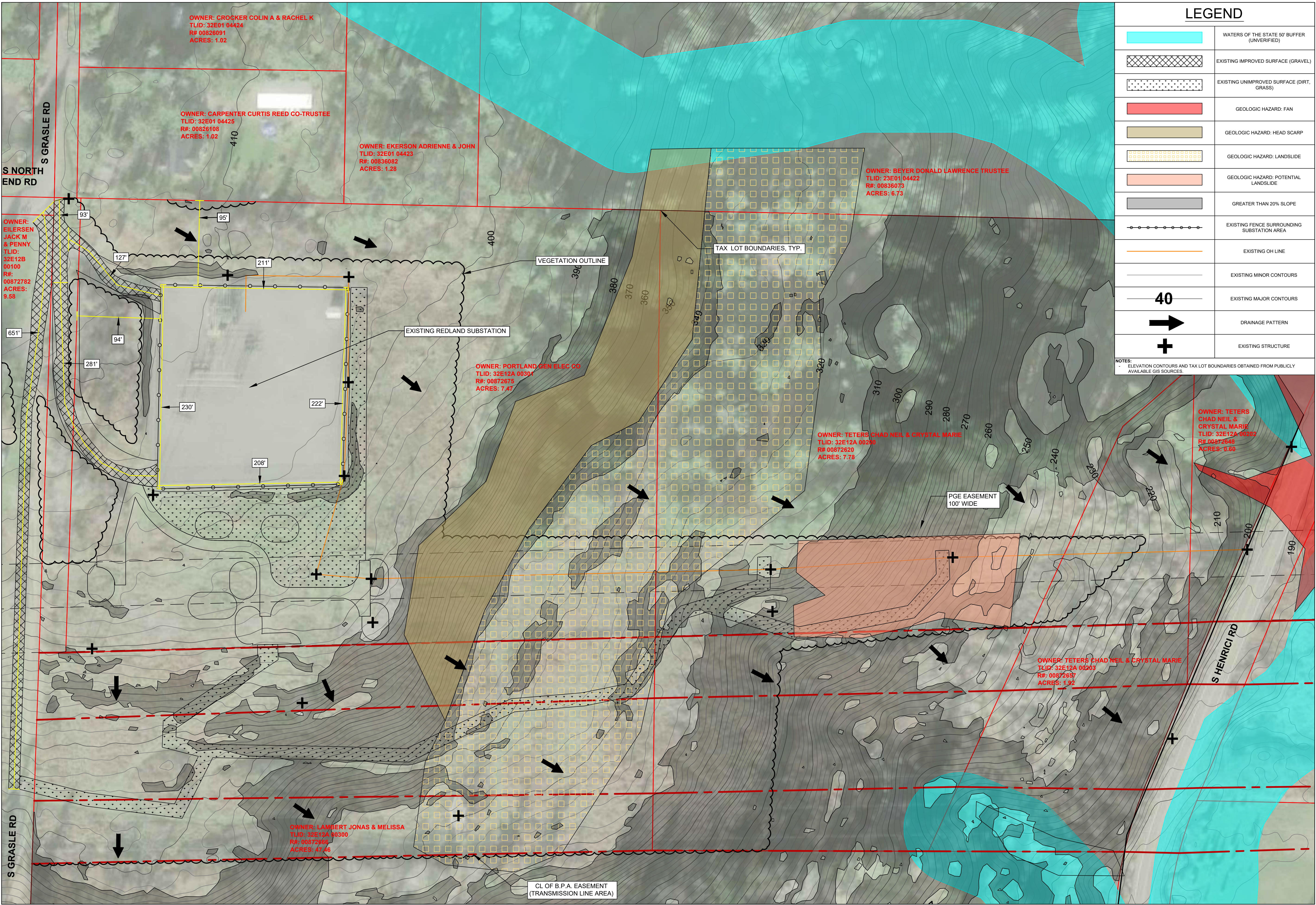
121 SW SALMON ST
PORTLAND, OREGON 97204
PORTLANDGENERAL.COM

AECOM

888 SW 5TH AVE, SUITE 600
PORTLAND, OR 97204
AECOM.COM

#	DATE	REVISION
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User:HolbenH Plotted: Aug 03, 2026 — 4:28pm Last Save: Aug 03, 2026 — 1:57pm \\na.aecomnet.com\ifs\AMER\Portland-USPOR01\DCS\projects\ENV\60782576_PGE_Redland_1200-C\900_CAD_GIS\910_CAD\PGE_Redland.dwg



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	WATERS OF THE STATE 50' BUFFER (UNVERIFIED)
	EXISTING IMPROVED SURFACE (GRAVEL)
	EXISTING UNIMPROVED SURFACE (DIRT, GRASS)
	GEOLOGIC HAZARD: FAN
	GEOLOGIC HAZARD: HEAD SCARP
	GEOLOGIC HAZARD: LANDSLIDE
	GEOLOGIC HAZARD: POTENTIAL LANDSLIDE
	GREATER THAN 20% SLOPE
	EXISTING FENCE SURROUNDING SUBSTATION AREA
	EXISTING OH LINE
	EXISTING MINOR CONTOURS
	EXISTING MAJOR CONTOURS
	DRAINAGE PATTERN
	EXISTING STRUCTURE

NOTES:
ELEVATION CONTOURS AND TAX LOT BOUNDARIES OBTAINED FROM PUBLICLY AVAILABLE GIS SOURCES.

PRELIMINARY	
DATE	05/03/26
VERSION	1.5
DESIGNED BY	HH
DRAWN BY	HH
CHECKED BY	GS
PROJECT NO.	60782576
SCALE	1" = 50'
DRAWN FOR	PERMIT SET
PROJ. ENG.	GS
PROJ. MGR.	GS
APPROVED	GS

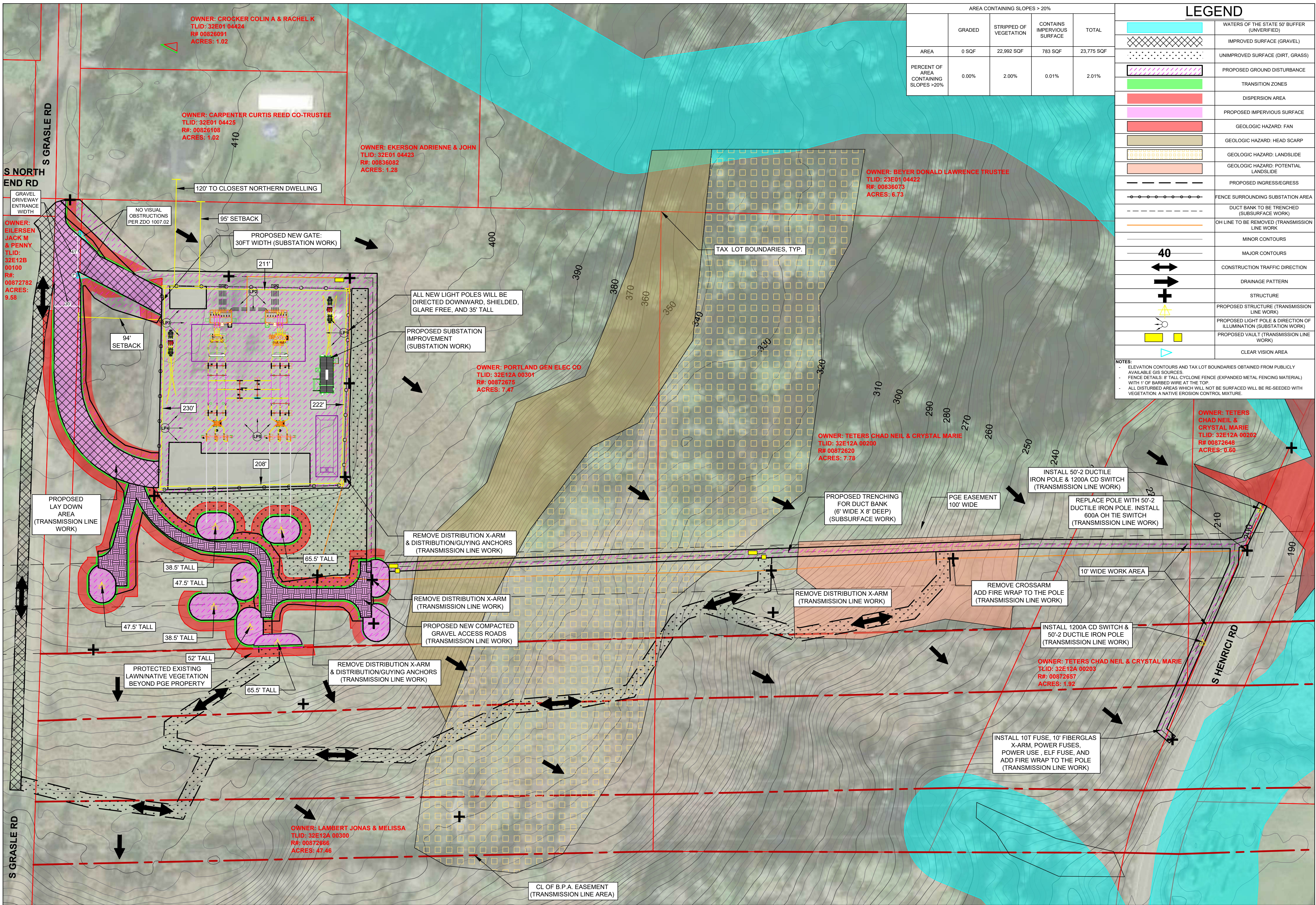
**PORTLAND GENERAL ELECTRIC
REDLAND SUBSTATION REBUILD
EXISTING CONDITIONS**

AECOM

121 SW SALMON ST
PORTLAND, OREGON 97204
PORTLANDGENERAL.COM

888 SW 5TH AVE, SUITE 600
PORTLAND, OR 97204
AECOM.COM

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PRELIMINARY

0'25'50'

AS SHOWN ON THIS SHEET, ALL DIMENSIONS ARE TO SCALE

N

0'25'50'

DATE

08/03/26

VERSION

1.5

DESIGNED BY

HH

DRAWN BY

HH

CHECKED BY

GS

PROJECT NO.

60782576

SCALE

1" = 50'

SHEET NO.

3

PROJ. ENG.

GS

PROJ. MGR.

GS

APPROVED

GS

PERMIT SET

GS

PORTLAND GENERAL ELECTRIC
REDLAND SUBSTATION REBUILD
SITE PLAN

PGE

121 SW SALMON ST
PORTLAND, OREGON 97204
PORTLANDGENERAL.COM

AECOM

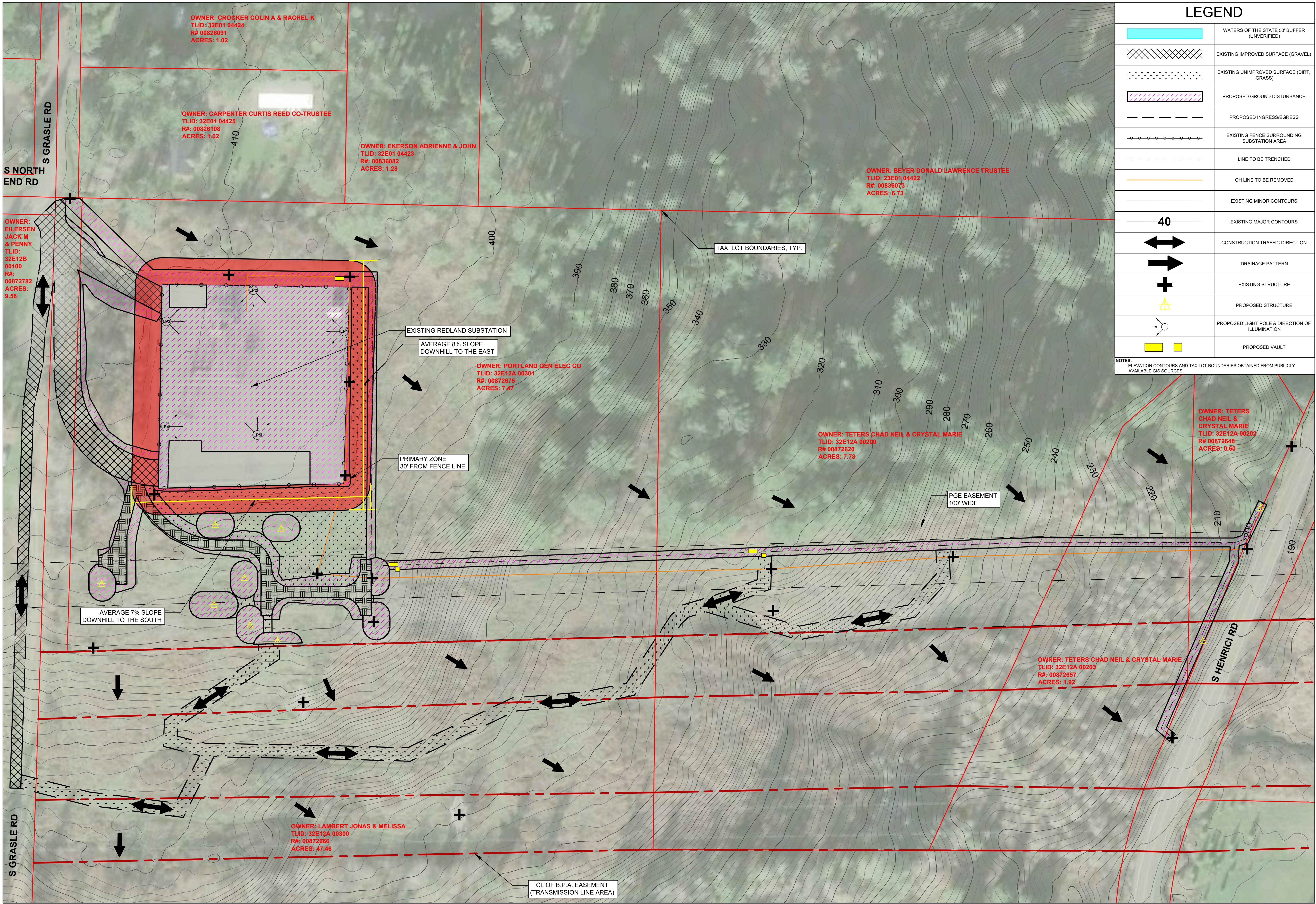
888 SW 5TH AVE, SUITE 600
PORTLAND, OR 97204
AECOM.COM

User:HolbenH

Plotted: Aug 03, 2026 - 4:28pm

Last Save: Aug 03, 2026 - 1:57pm

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LEGEND	
	WATERS OF THE STATE 50' BUFFER (UNVERIFIED)
	EXISTING IMPROVED SURFACE (GRAVEL)
	EXISTING UNIMPROVED SURFACE (DIRT, GRASS)
	PROPOSED GROUND DISTURBANCE
	PROPOSED INGRESS/EGRESS
	EXISTING FENCE SURROUNDING SUBSTATION AREA
	LINE TO BE TRENCHED
	OH LINE TO BE REMOVED
	EXISTING MINOR CONTOURS
	EXISTING MAJOR CONTOURS
	CONSTRUCTION TRAFFIC DIRECTION
	DRAINAGE PATTERN
	EXISTING STRUCTURE
	PROPOSED STRUCTURE
	PROPOSED LIGHT POLE & DIRECTION OF ILLUMINATION
	PROPOSED VAULT

NOTES:

ELEVATION CONTOURS AND TAX LOT BOUNDARIES OBTAINED FROM PUBLICLY AVAILABLE GIS SOURCES.

		DATE		06/03/26
		VERSION	1.5	
		DESIGNED BY	HH	
		DRAWN BY	HH	
		CHECKED BY	GS	
		PROJECT NO.	60782576	
		SCALE	1" = 50'	
		DESIGNED FOR	PERMIT SET	

PORTLAND GENERAL ELECTRIC
REDLAND SUBSTATION REBUILD
FUEL BREAK DIAGRAM

121 SW SALMON ST
PORTLAND, OREGON 97204
PORTLANDGENERAL.COM

888 SW 5TH AVE, SUITE 600
PORTLAND, OR 97204
AECOM.COM

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