



Portland General Electric

121 SW Salmon Street · Portland, Ore. 97204

TYPE II ARCHITECTURAL REVIEW

and

TREE REMOVAL PERMIT

Tonquin
Substation

Submitted to:

City of Tualatin

Planning Division

Submitted on Behalf of:

Portland General Electric Company

Prepared by:



Submitted for Completeness: January 17, 2023

Revised: February 2, 2023

TABLE OF CONTENTS

I. Proposal Summary Information	5
II. Project Team	6
III. Project Description and Existing Conditions	7
Background	7
Site Context.....	8
Requested Approvals	8
IV. Conformance with Tualatin Development Code – Architectural Review.	11
A. Chapter 32: Procedures	11
B. Chapter 33. Applications and Approval Criteria	12
C. Chapter 63 Industrial Uses and Utilities and Manufacturing Zones—Environmental Regulations.....	12
D. Chapter 64 manufacturing business park zone (MBP).....	14
E. Chapter 73B Landscaping Standards.....	15
F. CHAPTER 73C PARKING STANDARDS	18
G. CHAPTER 73D WASTE AND RECYCLABLES MANAGEMENT STANDARDS	20
H. CHAPTER 74 PUBLIC IMPROVEMENT REQUIREMENTS	21
I. CHAPTER 75 ACCESS MANAGEMENT.....	28
V. Conformance with Tualatin Development Code –Tree Removal Permit/Review	29
TDC 33.110. Tree Removal Permit/Review.....	29
VI. Conclusion	30

EXHIBITS

Exhibit A. Plans and Survey

Exhibit B. Land Use Application Form

Exhibit C. Title Report

Exhibit D. Neighborhood Developer Meeting Materials

Exhibit E. Geotechnical Investigation Report

Exhibit F. Preliminary Stormwater Calculation

Exhibit G. CWS Service Provider Letter

Exhibit H: TVF&R Service Provider Letter

Exhibit I: Architectural Review Sign Posting Certification

I. Proposal Summary Information

Applicant:	Portland General Electric Attn: Tina Tippin, Property Services Specialist 121 SW Salmon Street, 1WTC1302 Portland, Oregon 97204 Phone: 503-708-4386 Email: tina.tippin@pgn.com
Applicants Representative:	MIG APG Attn: Clinton "CJ" Doxsee, Senior Planner 506 SW 6 th Avenue, Suite 400 Portland, OR 97204 Phone: 503-741-9859 Email: cdoxsee@migcom.com
Owner:	Portland General Electric Company Attn: Tina Tippin, Property Services Specialist Signatory: Meredith Armstrong, Property Services Manager 121 SW Salmon Street, 1WTC1302 Portland, Oregon 97204 Phone: 503-464-7672 Email: tina.tippin@pgn.com
Request:	Architectural Review, Type II Tree Removal Permit, Type II
Location:	12340 SW Blake Street
Tax Lot ID:	2S127C000551
Zoning Designation:	Manufacturing Business Park (MBP) zone
Tax Lot Size:	4.22 acres (site) 2.58 acres (substation development area)

II. Project Team

Owner

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III. Project Description and Existing Conditions

Background

Portland General Electric Company (PGE) is requesting approval of a Type II Architectural Review and a Tree Removal Permit for development of a substation at 12340 SW Blake Street (tax lot 2S127C000551).

The site is in the Manufacturing Business Park (MBP) zone, shown in Figure 2, Zoning Map. The Tonquin Substation is a crucial element of substation improvements across PGE's network and is needed to provide PGE's service to the growing region. The population and employment base in the region and its surrounding communities have grown significantly in recent years. The development of the substation is necessary to add capacity to the power delivery system, increase system reliability, meet the demands of growth, and continue to provide reliable and safe power to serve Tualatin and surrounding areas into the future. Additionally, the Tonquin Substation is needed to support the Willamette Water Supply Project treatment plant located directly west of the site and will improve service reliability in the immediate area.¹ The proposed location minimizes potential negative impacts of a new substation on existing and future residential areas, secures a location in an area designated for future industrial and manufacturing uses, and supports PGE's long-term plans for the provision of electrical services in this area of the region.

The proposed substation is located on the same site as the PGE Integrated Operations Center (IOC) at the time it was approved by the City of Tualatin in 2019 (AR 19-0005).² The IOC is an office building for PGE operations and a control center hub for PGE control and communication systems. The Tonquin Substation was not included as a part of the 2019 IOC approval. Figure 1 shows the location of the IOC and the location of the proposed Tonquin Substation.

The Tonquin Substation is a facility that converts high voltage (115,000 volts) transmission level electricity travelling on high voltage lines down to a lower voltage (13,000 volts) so that it can be distributed out to neighborhoods for power supply to homes and businesses via local distribution lines. The high voltage of the equipment in the substation necessitates the need for more space between each individual piece of equipment, in addition to the clearance required for safe travel by workers and vehicles within the station while it is energized. It also dictates the distances needed between the equipment and other metal objects (fences) and trees, which can conduct electricity and cause arcing. This prevents accidental electrical arcing between equipment and either other equipment or people, which would cause safety concerns for workers and nearby residents/pedestrians and electrical service reliability issues. To address these issues, in 2021, the Tualatin Planning Commission approved a variance (VAR 21-0002) for the substation site to allow 10' fence setback as opposed to the required 50' setback.

¹ The Willamette Water Treatment Plant is under construction. It is expected to be completed and operational by 2026.

² The area where the substation is proposed has since been partitioned into a new tax lot.

Site Context

The site is approximately 4.2 acres and is located across SW Blake Street from the IOC. The development area for the proposed Tonquin Substation is approximately 184,125 square feet. Currently, the development area is vacant, wooded land. The new substation will be bounded by SW 124th Avenue on the west, SW Blake Street on the north and east, and a rock quarry (not owned by PGE) to the south. Access to the substation will be from SW Blake Street, which is a new road constructed as a part of the IOC approval.

Requested Approvals

PGE is requesting the approval of a Type II Architectural Review for development of a substation and a Tree Removal Permit to remove 222 non-exempt trees and 84 exempt trees.

Figure 1: Site Aerial Image



- City Limits
- - - Substation Site
- ▭ Tax lot
- - - Blake Rd. Extension (Conceptual)

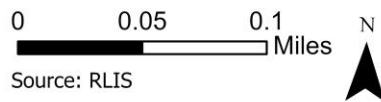
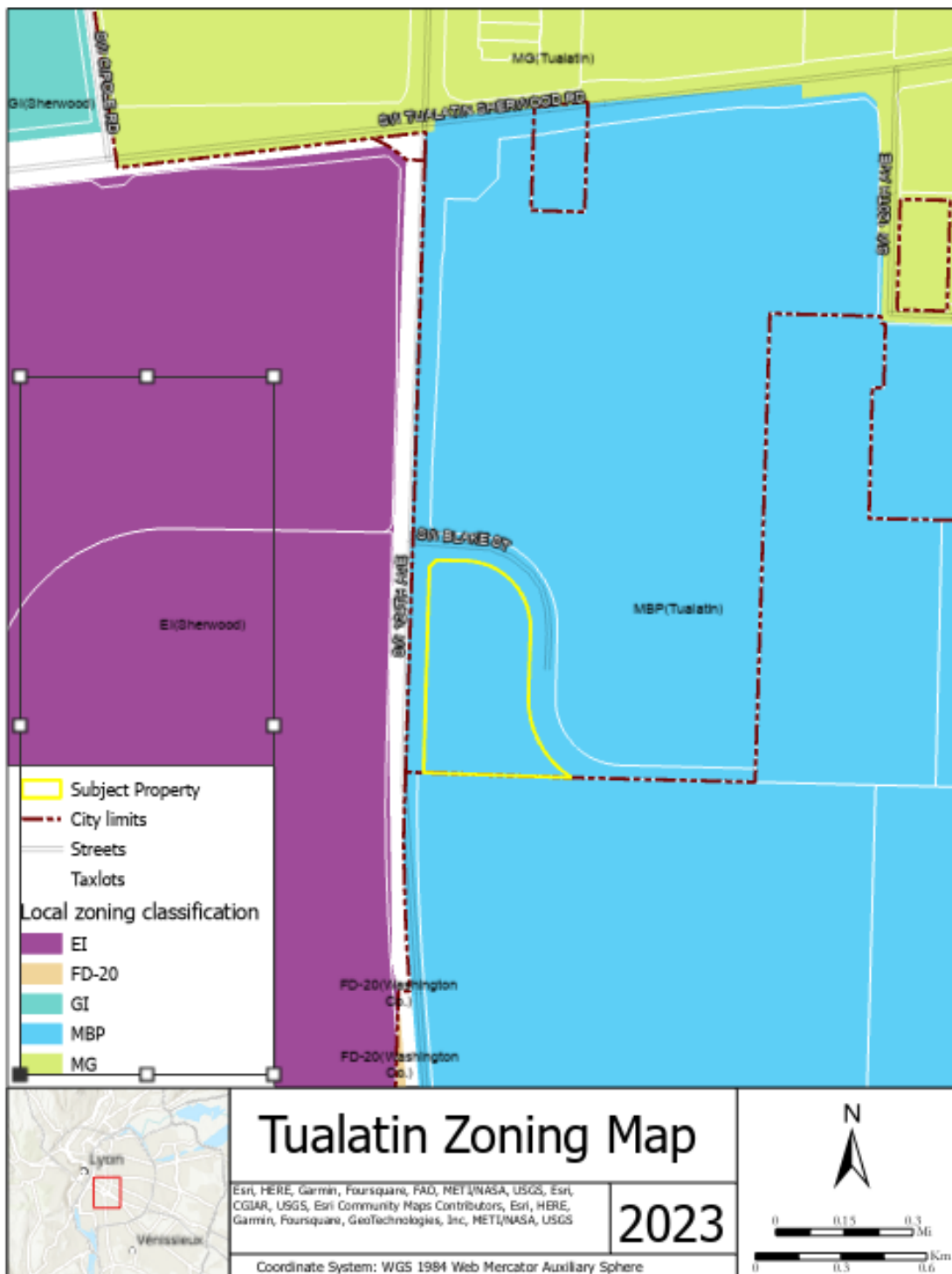


Figure 2: Zoning Map



IV. Conformance with Tualatin Development Code – Architectural Review.

Compliance with applicable standards in the following sections of the Tualatin Development Code are addressed in Subsection IV of the application:

- A. TDC 32: Procedures
- B. TDC 33.020: Architectural Review
- C. TDC 63: Industrial Uses And Utilities And Manufacturing Zones—Environmental Regulations
- D. TDC 64: Manufacturing Business Park (MBP)
- E. TDC 73B: Landscaping Design
- F. TDC 73C: Parking Standards
- G. TDC 73D: Waste and Recyclable Management Standards
- H. TDC 74: Public Improvements
- I. TDC 75: Access Management

A. Chapter 32: Procedures

TDC 32.010 – Purpose and Applicability.

Response: Table 32-1, which lists the City’s land use and development applications and corresponding review procedures, classifies Architectural Review for developments such as the proposed substation as subject to Type II review procedures. The applicable code section is TDC 33.020. Tree Removal Permits are also subject to Type II review procedures. The applicable code section is TDC 33.110. The request is for a Type II review and compliance with the applicable code sections is addressed below. Therefore, the standard is met.

TDC 32.110. Pre-Application Conference.

Response: The applicant participated in an initial pre-application meeting on November 4, 2020. Because that pre-application meeting was more than six months prior to the application submittal, the applicant participated in a follow-up conference on July 20, 2022.

TDC 32.120. Neighborhood/Developer Meetings.

Response: A Neighborhood/Developer meeting on January 18, 2021. Documentation of sign posting and notification in compliance with this section, as well as a sign-in sheet and notes from the meeting are included in Exhibit D. These standards are met.

TDC 32.130. Initiation of Applications.

Response: A title report showing Portland General Electric Company (PGE) to be the current owner of the subject site is included as Exhibit C. The application has been signed by Meredith Armstrong, PGE, Manager of Property Services. This standard is met.

TDC 32.140. Application Submittal.

Response: This application includes the required submittal items. This standard is met.

TDC 32.150. Sign Posting.

Response: Signs were posted in advance of the neighborhood/developer meeting as required by 32.150(1)(a). As required by 32.150(1)(b), signs will be posted following the submittal of this Type II application.

B. Chapter 33. Applications and Approval Criteria***TDC 33.020. Architectural Review.***

Response: The proposed development of an electrical substation will alter the topography and appearance of currently vacant areas and does not meet any of the exceptions, therefore Architectural Review is required. As an application for “general development” per TDC 33.020(3)(f), the application is subject to Type II Review. The application materials specified in TDC 33.020(4) have been provided including: Existing conditions plan (Sheet P2, Exhibit A), site and utility plan (Sheet P2, Exhibit A), grading plan (Sheet P4, Exhibit A), landscape plan (Sheet P8, Exhibit A), title report (Exhibit C), and a Service Provider Letter from Clean Water Services (Exhibit G). As demonstrated below, the proposed development complies with all applicable standards of TDC Chapters 73 through 75. The applicant understands that conditions of approval will be discussed and reviewed with City staff during the Architectural Review process.

C. Chapter 63 Industrial Uses and Utilities and Manufacturing Zones—Environmental Regulations***TDC 63.010. Purpose.***

Response: The proposed Tonquin Substation will be developed and operated in compliance with all applicable environmental regulations.

TDC 63.020. Applicability.

Response: As a basic utility, the substation is subject to the standards of this chapter.

TDC 63.051. Noise.

Response: The proposed substation will be operated in compliance with the Oregon State Department of Environmental Quality standards relating to noise and the City of Tualatin noise ordinance in TMC 6-14.

TDC 63.052. Vibration.

Response: The proposed substation will be operated in compliance with the ground vibration standard applicable to properties within an industrial planning district which states that ground vibration as measured at a common property boundary of any two properties must not exceed 0.1 inches per second (0.0025 meters per second) RMS velocity.

TDC 63.053 Air Quality.

Response: The proposed substation will be operated in compliance with current air quality standards adopted by the Oregon Department of Environmental Quality. The proposed plans of construction and operations comply with the applicable recommendations and regulations of the State Department of Environmental Quality.

TDC 63.054. Odors.

Response: The proposed substation will not emit odors in such quantities as to create a nuisance condition at any point beyond the subject property line of the emitting use.

TDC 63.055. Heat and Glare.

Response: For safety reasons, substations are not enclosed within a building. Operation of the proposed substation will not produce excessive heat or glare. The substation will have exterior lighting for security purposes; however, the site is approximately three-quarters of a mile from the nearest residential planning district.

TDC 63.056. Storage and Stored Materials.

Response: Only limited materials will be stored on site. Those materials that are stored on site will be in a secure structure. No waste will be stored on site and no open storage of materials is proposed.

TDC 63.057. Liquid or Solid Waste Materials.

Response: The proposed substation will not cause waste to be disposed on the site or into adjacent drainage ditches, creeks, or other natural waterways in violation of State of Oregon DEQ standards, Clean Water Services Standards, City Standards, or in a manner that causes harm to wildlife.

TDC 63.058. Dangerous Substances.

Response: The proposed substation use does not involve the storage, transfer, or processing of hazardous, toxic, or radioactive waste.

D. Chapter 64 manufacturing business park zone (MBP)

TDC 64.100. Purpose.

Response: The use of the site for a substation is consistent with the purpose of the zone to provide “an environment exclusively for and conducive to the development and protection of modern, large-scale specialized manufacturing and related uses and research facilities.” The proposed use will not cause objectionable noise, smoke, odor, dust, noxious gases, vibration, glare, heat, fire hazard or other wastes. In addition, the Tonquin Substation will improve service reliability in the immediate area; thus, benefitting and enhancing the economic viability of this important industrial area.

TDC 64.200. Use Categories.

Use Category	Status	Limitations And Code References
Infrastructure And Utilities Use Categories		
Basic Utilities	P	—

Response: Per the Pre-application summary, electrical substations are considered basic utilities and are therefore permitted in the MBP zone.

TDC 64.210. Additional Limitations on Uses.

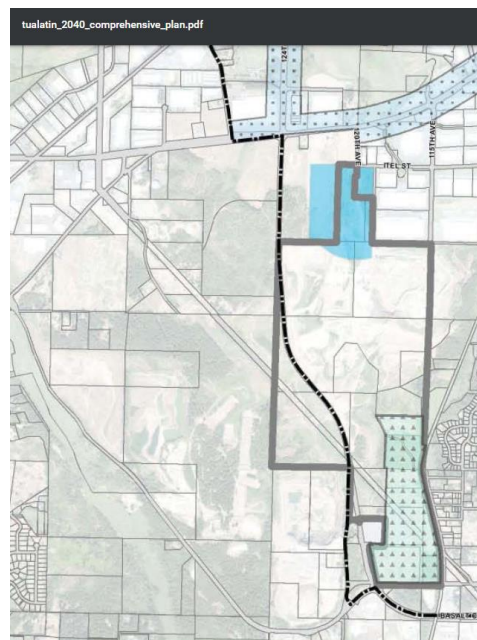
Response: No retail sale of goods or office uses are proposed. The proposed substation location is not within the Commercial Services Overlay or the Tonquin Light Manufacturing Overlay. Therefore, TDC 64.210 (2), (3) or (4) are not applicable. Per TDC 64.210(5), as a Basic Utility use, the Tonquin Substation will not be within an enclosed building.

TDC 64.300. Development Standards.

Response: The Development standards in the MBP zone, which are listed in Table 64-2, are addressed below.

LOT SIZE

As shown in the excerpt from the Tualatin Comprehensive Plan Map 10-5, the site is not within the Metro Regionally Significant Industrial Area (gray boundary). The minimum lot size for a parcel not identified in the RSIA is 20,000 square feet. The overall site is approximately 4 acres.



LOT DIMENSIONS

Lot dimensions for Infrastructure and Utilities Uses are as determined through the Subdivision, Partition, or Lot Line Adjustment process. No new lot is proposed to be created as a part of this project. The substation development area has approximately 515 feet of frontage on SW 124th Street, 184 feet of frontage on SW Blake Street (North) and 515 feet of frontage on SW Blake Street (East).

MINIMUM SETBACKS

The substation will be located on tax lot 2S127C000501 (12340 SW Blake Street). The front lot is SW 124th Avenue. The substation enclosure will be setback at least 40 feet from SW 124th Avenue right-of-way. The rear setback (along the lot line opposite the SW 124th frontage) is 78 feet. The applicant previously obtained a variance (VAR 21-0002) to allow the perimeter fence to be located within 10 feet of the public right-of-way.

MAXIMUM HEIGHT

The only structure associated with the proposed substation is a control enclosure and is approximately 14 feet in height. Most of the equipment is less than 20 feet tall. The height of the tallest piece of equipment is 40 feet.

With the previously approved variance (VAR 21-0002), the proposed substation is compliant with the development standards in Table 64-2.

TDC 64.310. Additional Development Standards.

Response: The applicant is not proposing an Industrial Master Plan or Spur Rail Tracks; therefore, TDC 64.310(1) and (2) are not applicable. The site is not within the RSIA; therefore, TDC 64.310(3) is not applicable. There are no residential properties within residential planning districts within 450 feet of the subject site, therefore no sound barriers are required pursuant to TDC 64.310(4). The site is not a “wetlands conservation lot” and there are no adjacent greenways or natural areas therefore, TDC 64.310(5) and (7) do not apply. The substation is a permitted use; therefore, TDC 64.310(6) does not apply.

E. Chapter 73B Landscaping Standards

TDC 73B.010. Landscape Standards Purpose and Objectives.

Response: As shown on the proposed landscaping plan (Sheet P8, Exhibit A), the proposed landscaping meets the objectives of the City’s landscaping standards, in particular by retaining existing trees and planting new trees and by using trees and other landscaping materials to temper the effects of the sun, wind, noise, and air pollution.

TDC 73B.020. Landscape Area Standards Minimum Areas by Use and Zone.

The following are the minimum areas required to be landscaped for each use and zone:

<i>Zone</i>	<i>Minimum Area Requirement*</i>	<i>Minimum Area Requirement with dedication for a fish and wildlife habitat*</i>
<i>(6) Industrial Business Park Overlay District and MBP—must be approved through Industrial Master Plans</i>	<i>20 percent of the total area to be developed</i>	<i>Not applicable</i>
<p><i>* For properties within the Hedges Creek Wetland Protection District which have signed the "Wetlands Mitigation Agreement," the improved or unimproved wetland buffer area may reduce the required landscaping to 12.5 percent as long as all other landscape requirements are met.</i></p>		

Response: As shown on the proposed landscaping plan (Sheet P8, Exhibit A), approximately 39 percent (71,680 square feet) of the 184,125 square feet site has been landscaped; therefore, this standard has been met.

TDC 73B.030. Additional Minimum Landscaping Requirements for Multi-Family Residential Uses.

Response: The proposed use is classified as a “Basic Utility” which is within the “Infrastructure and Utilities Categories” pursuant to TDC 39.620; therefore, this standard is not applicable.

TDC 73B.040. Additional Minimum Landscaping Requirements for Commercial Uses.

Response: The proposed use is classified as a “Basic Utility” which is within the “Infrastructure and Utilities Categories” pursuant to TDC 39.620; therefore, this standard is not applicable.

TDC 73B.050 Additional Minimum Landscaping Requirements for all uses in the Mixed Use Commercial Zone.

Response: The subject site is not within a Mixed Use Commercial Zone; therefore, this standard is not applicable.

TDC 73B.060. Additional Minimum Landscaping Requirements for Industrial Uses.

Response: The proposed use is classified as a “Basic Utility” which is within the “Infrastructure and Utilities Categories” pursuant to TDC 39.620; therefore, this standard is not applicable.

TDC 73B.070. Additional Minimum Landscaping Requirements for Institutional Uses.

Response: The proposed use is classified as a “Basic Utility” which is within the “Infrastructure and Utilities Categories” pursuant to TDC 39.620; therefore, this standard is not applicable.

TDC 73B.080. Minimum Landscaping Standards for All Zones.

Response: The proposed development complies with the minimum landscaping standards applicable to all zones as shown on the landscaping plan (Sheet P8, Exhibit A) and summarized below.

REQUIRED LANDSCAPE AREAS.

As shown on the landscaping plan, as required by TDC 73B.020, 39 percent (71,680 square feet) of the site has been landscaped in accordance with the standards in this section. Planting in required landscape areas has been designed (and will be constructed, installed, and maintained) so that within three years, 90% of the ground will be covered by living grass or other plant materials. Ten percent of the area will be covered with a mix of bark chips and/or rock. Plants will be installed in accordance with the provisions of the American National Standards Institute ANSI A300 (Part 1) (Latest Edition) and will be maintained so that they do not interfere with designated pedestrian or vehicular access or constitute a traffic hazard because of reduced visibility.

FENCES

There are no designated animal crossings under, over, or around transportation corridors within proximity of the subject site; therefore, this standard is not applicable.

TREE PRESERVATION

Most of the trees located within the substation development area are proposed to be removed as part of this application. Tree protection and preservation is proposed for trees located near the development area (see Sheet P5 in Exhibit A). This includes trees located near the southeast corner of the proposed substation, where the SW Blake Street right-of-way and the southern property line are located. Trees will be preserved in accordance with development requirements and will feature a chain link fence or similar approved device for protection.

GRADING

As shown in the preliminary grading plans (Sheet P4 in Exhibit A), this application is proposing to regrade the site to create a level surface within the substation's footprint and driveway. The regraded area within the substation footprint will feature a minor northeastern downward slope that will channel stormwater runoff to the proposed stormwater facility. The regraded driveway will feature a concave slope that will channel water from either end of the driveway to a proposed underground stormwater detention chamber. The detention chamber will connect to the existing stormwater facilities in SW Blake Street. The areas outside and adjacent to the substation facility on the eastern and northern side will include a stormwater conveyance ditch that will convey stormwater runoff outside the substation facility to proposed stormwater facility. As shown on Sheet P8 in Exhibit A, all the areas that are proposed for grading and not part of the facility will be replanted with cotoneaster dammeri or low maintenance lawn seed.

IRRIGATION

PGE plans to install an automatic irrigation system to support existing and planned landscaping around the substation.

RE-VEGETATION IN UN-LANDSCAPED AREAS

As shown in the landscaping plan (Sheet P8), PGE is proposing to replant all areas outside of the substation enclosure that were disturbed by grading and construction activity. The preliminary plant schedule for planting consists of native plant materials. Planted areas will be irrigated to ensure plantings are able to develop maturely.

TDC 73B.090. Minimum Standards Trees and Plants.

Response: The proposed development will comply with the minimum standards for the types of trees, shrubs, and groundcovers. See Sheet P8 for details on trees and plants that are proposed for the site.

F. CHAPTER 73C PARKING STANDARDS

TDC 73C.010. Off-Street Parking and Loading Applicability and General Requirements.

Response: PGE is proposing to construct a new substation which is considered a new use; therefore, these standards apply. The off-street minimum parking requirements table in TDC 73C.100 does not specify a minimum off-street parking requirements for a substation use. The table does not list a comparable use.

Notwithstanding, no employees will be stationed at the substation site. The substation site will be inspected once or twice a month. There will be minimal vehicle activity or need for parking or loading on the substation site after construction is complete. This application is not proposing a parking area as part of the substation development; however, adequate area will be available within the substation for short-term parking of any maintenance vehicles during site visits.

TDC 73C.020. Parking Lot Design Standards.

Response: This application is not proposing a parking lot as part of this development; therefore, these standards do not apply.

TDC 73C.030. Shared Parking Requirements.

Response: This application is not proposing a parking lot as part of this development; therefore, these standards do not apply.

TDC 73C.040. Joint Use Parking Requirements.

Response: This application is not proposing a parking lot as part of this development; therefore, these standards do not apply.

TDC 73C.050. Bicycle Parking Requirements and Standards.

Response: The off-street minimum parking requirements table in TDC 73C.100 does not specify a minimum off-street bicycle parking requirement for a substation use. As such, these standards do not apply.

TDC 73C.100. Off-Street Parking Minimum/Maximum Requirements.

Response: The off-street minimum parking requirement does not specify a minimum off-street parking requirement for a substation use. As such, these standards do not apply.

TDC 73C.120. Off-Street Loading Facilities Minimum Requirements.

Response: The only structure associated with the proposed substation is a control enclosure approximately 600 square feet in size. As such, the minimum number of loading facilities for an industrial use is zero. This project is not proposing a loading facility as part of this application.

TDC 73C.130. Parking Lot Driveway and Walkway Minimum Requirements.

Response: This project is proposing a single new access from SW Blake Street to allow ingress and egress from the substation site. The proposed access point is approximately 30 feet wide, well below the 40 foot maximum standard. The driveway will not be constructed near an adjacent property line.

The proposed driveway diverges into two one-way maneuvering areas, each approximately 30 feet wide. The diverging driveway provides access to two substation access points. The substation is designed to allow maintenance vehicles to circulate through the site in a single-directional manner, connecting to the two access points. The width of the driveways exceeds the minimum requirement of 16 feet for one-way ingress or egress while allowing enough maneuvering area for larger maintenance vehicles if needed.

G. CHAPTER 73D WASTE AND RECYCLABLES MANAGEMENT STANDARDS

TDC 73D.010. Applicability and Objectives.

Response: This application is proposing a new substation, a type of industrial development; therefore, these standards apply. Notwithstanding, no employees will be stationed at the substation site. The substation site will be inspected once or twice a month. There will be minimal employee activity at the substation after construction is complete. This application is not proposing a waste and recycling area as part of the development. Employees who visit the site are anticipated to generate minimal waste as part of their regular maintenance activities. Any waste that is generated will be taken with the employees as they leave and deposited in appropriate waste and recyclable receptacles off-site

TDC 73D.020. Design Methods.

Response: This application is not proposing waste and recyclable storage areas as part of this development; therefore, this standard does not apply.

TDC 73D.030. Minimum Standards Method.

Response: This application is not proposing waste and recyclable storage areas as part of this development; therefore, this standard does not apply.

TDC 73D.040. Waste Assessment Method.

Response: This application is not proposing waste and recyclable storage areas as part of this development; therefore, this standard does not apply.

TDC 73D.050. Comprehensive Recycling Plan Method.

Response: This application is not proposing waste and recyclable storage areas as part of this development; therefore, this standard does not apply.

TDC 73D.060. Franchised Hauler Review Method.

Response: This application is not proposing waste and recyclable storage areas as part of this development; therefore, this standard does not apply.

TDC 73D.070. Location, Design and Access Standards.

Response: This application is not proposing waste and recyclable storage areas as part of this development; therefore, this standard does not apply.

H. CHAPTER 74 PUBLIC IMPROVEMENT REQUIREMENTS

Response: Information provided at the pre-application conference held on 7/20/22 indicate what public facilities and related site development considerations are necessary for development of the substation.

The pre-application conference indicated the following permits may be necessary.

- Washington County Facility Permit
- Erosion Control Permit
- Water Quality Permit
- Public Works Permit

WASHINGTON COUNTY FACILITY PERMIT

SW 124th Avenue is under Washington County's jurisdiction. Any construction within the right-of-way will require Facility Permit. This project is not proposing improvements to SW 124th Avenue as part of this project. As such, a Facility Permit will not be required.

EROSION CONTROL PERMIT

A Tualatin Erosion Control permit is required if disturbing over 500 square feet. In addition, a 1200-CN permit from CWS or a 1200-C permit from DEQ is required for projects disturbing larger amounts of land (one to five acres and over five acres respectively). This project is proposing to disturb approximately +/- 2.5 acres as part of this application. As such, an Erosion Control permit from Tualatin and a 1200-CN permit from CWS would be required.

WATER QUALITY PERMIT

A Tualatin Water Quality permit is required for construction and modification of public and private impervious areas. The Water Quality permit will require the following elements, as applicable:

- Wetland mitigation/revegetation if required by the CWS service provider letter (SPL).
- The CWS SPL may indicate additional permits may be required.
- Maintenance agreement for private stormwater treatment and conveyance.
- Stormwater plans and calculations in accordance with TDC 74.630 and 74.650, TMC 3-5-200 through 3.5.430, Public Works Construction Code, and CWS Design and Construction Standards

- Geotech/soil/infiltration report if a water quality facility includes infiltration in the design

A CWS SPL is provided in Exhibit G. The CWS SPL indicates the project will not significantly impact the existing or potentially sensitive areas found near the site.

PGE understands a maintenance agreement will be required for the proposed private stormwater treatment and conveyance facilities.

A preliminary stormwater plan has been prepared (Exhibit F). The preliminary stormwater plan provides a review of regulatory design criteria, design parameters, and stormwater analyses.

A Geotechnical Investigation Report has been prepared (Exhibit E). The report presents the results of a geotechnical study to support the design and construction of the proposed substation.

PUBLIC WORKS PERMIT

A Public Works permit is required for any sanitary, stormwater, or water line improvements within the SW Blake Street right-of-way. This project is proposing a new driveway access onto SW Blake Street and new stormwater connections at two locations. As such, a Public Works permit will be required.

TDC 74.110. Phasing of Improvements.

Response: The applicant is not proposing to construct public facilities in phases; therefore, this standard does not apply.

TDC 74.120. Public Improvements.

Response: No public improvements are proposed as part of this project. The proposed project is not located within a fish and wildlife habitat; therefore, this standard does not apply.

TDC 74.130. Private Improvements.

Response: The applicant will be responsible for proposed utility facilities located within the subject property.

TDC 74.140. Construction Timing.

Response: The applicant understands that all public and private improvements required under TDC Chapter 74 must be complete prior to receiving a Certificate of Occupancy.

TDC 74.210. Minimum Street Right-of-Way Widths.

Response: The proposed project is not part of a subdivision or partition application. No additional right-of-way is required to be dedicated.; therefore, this standard does not apply.

TDC 74.220. Parcels Excluded from Development.

Response: The proposed project is not part of a subdivision application; therefore, this standard does not apply.

TDC 74.310. Greenway, Natural Area, Bike, and Pedestrian Path Dedications and Easements.

Response: There are no areas on or near the subject property that are dedicated for Greenway or Natural Area purposes. This project is not proposing an easement or dedication for bike or pedestrian facilities. Bike and pedestrian facilities will be accommodated within the right-of-way on SW Blake Street, which provides access to the subject property and surrounding sites. As such, the standards in Section 74.310 do not apply.

TDC 74.320. Slope Easements.

Response: This project is not proposing any new slope easements as part of this project. An existing slope easement is located on the site around the edge of the site as shown on Existing Conditions plan (Sheet P2, Exhibit A). This project is not a part of a subdivision or partition. Therefore, this standard does not apply.

TDC 74.330. Utility Easements.

Response: As shown on the Existing Conditions Plan (Sheet P2, Exhibit A), there is an existing 8' public utility easement along both SW 124th and SW Blake St. No new public easements are proposed or required with this request. This proposal is not a part of a subdivision or partition.

TDC 74.340. Watercourse Easements.

Response: This project is not proposing a watercourse easement as part of this application; therefore, these standards do not apply.

TDC 74.350. Maintenance Easement or Lots.

Response: This application is not proposing a dedicated tract or easement for access to public improvements for operation and maintenance.

TDC 74.410. Future Street Extensions.

Response: This project is not proposing a street extension as part of this project; therefore, these standards do not apply.

TDC 74.420. Street Improvements.

Response: As shown in the Preliminary Site Plan and Utility Page (Sheet P3, Exhibit A), no street improvements are proposed with this project. The only work being done in the public right-of-way is to connect the stormwater system to the onsite stormwater facilities and a water connection for irrigation. No specific mitigation is required for traffic impacts. The proposed project does not have additional improvements required as part of an Access Management Plan. This project is not requesting a modification to the street design standards; therefore, this standard does not apply. The proposed development is not located adjacent to a major transit stop.

TDC 74.425. Street Design Standards.

Response: This project is not proposing any new streets or street improvements. Therefore, this standard does not apply.

TDC 74.430. Streets, Modifications of Requirements in Cases of Unusual Conditions.

Response: No street improvements are proposed. Therefore, this standard does not apply.

TDC 74.440. Streets, Traffic Study Required.

Response: The pre-application conference held on July 20, 2022, did not indicate a traffic study is required for the proposed development; therefore, these standards do not apply.

TDC 74.450. Bikeways and Pedestrian Paths.

Response: This project is not proposing a bikeway, pedestrian path, or multi-use path as part of this application. As shown in the Existing Conditions Plan (Sheet P2, Exhibit A), there is an existing sidewalk and bike lane adjacent to the site. No additional easements or bikeways and pedestrian paths are proposed or required with this project.

TDC 74.460. Accessways in Residential, Commercial and Industrial Subdivisions and Partitions.

Response: This project is not proposing a subdivision or partition; therefore, these standards do not apply.

TDC 74.470. Street Lights.

Response: This project is not proposing to install street lights as part of this application; therefore, this standard does not apply.

TDC 74.475. Street Names.

Response: This project is not proposing a new street, nor is it proposing to rename an existing street; therefore, these standards do not apply.

TDC 74.480. Street Signs.

Response: This project is not proposing a subdivision or partition plat; therefore, these standards does not apply.

TDC 74.485. Street Trees.

Response: This project is not proposing a residential subdivision or partition plat. No street trees are included in this proposal. Therefore, this standard does not apply.

TDC 74.610. Water Service.

Response: This project is proposing a connection to the existing water line located in SW 124th Street. The proposed connections will be constructed in conformance with Public Works Construction Code and the requirements of TDC Section 74.610 and TDC Chapter 12.

TDC 74.620. Sanitary Sewer Service.

Response: No sanitary sewer connection is included in this project. The proposed development is a substation that will not have a need for sanitary facilities. Therefore, this standard does not apply.

TDC 74.630. Storm Drainage System.

Response: As shown in the Site and Utility Plan (Sheet P3, Exhibit A), this project is proposing a storm drainage system that will collect and redirect stormwater runoff to an on-site infiltration facility via storm sewer catch basins and underground stormwater lines. Adjacent undeveloped properties would not be served by the subject property's stormwater system. Therefore, this standard is met.

TDC 74.640. Grading.

Response: As shown in the Grading Plan (Sheet P4, Exhibit A), the site will have minimal grading necessary to accommodate the proposed substation. Site grading will allow for stormwater runoff to channel from the highest points at the southeastern portion of the subject property, to where water will be discharged into a stormwater detention facility. The grading and stormwater design has been designed to prevent stormwater runoff onto the adjacent property. Therefore, this standard is met.

TDC 74.650. Water Quality, Storm Water Detention and Erosion Control.

Response: This project is not a part of a partition or subdivision application. As shown on the Site and Utility Plan (Sheet P3, Exhibit A), a stormwater detention facility is proposed at the northeastern portion of the site. As provided in Exhibit F, the proposed stormwater facility will have sufficient capacity to manage on-site stormwater runoff. The facility will be constructed in conformance with applicable Surface Water Management Ordinance. PGE understands a Stormwater Connection Permit will be required.

TDC 74.660. Underground.

Response: As shown in the Site and Utility Plan (Sheet P3, Exhibit A) all proposed utilities that serve the site are located underground. The substation will connect to adjacent overhead utility lines. Therefore, this standard is met.

TDC 74.670. Existing Structures.

Response: There are no existing structures on the site, the property currently sits vacant. Therefore, this standard does not apply.

TDC 74.700. Removal, Destruction or Injury of Trees.

Response: This project is not proposing to remove any trees in the public right-of-way. Therefore, this standard does not apply.

TDC 74.705. Street Tree Removal Permit.

Response: As stated above, the project is not proposing to remove any street trees. Therefore, this standard does not apply.

TDC 74.706. Street Tree Fees.

Response: This applicant understands that they must pay all costs incurred by the City as listed in the city of Tualatin Fee Schedule. The applicant is not proposing to add or remove any street trees. Therefore, additional fees related to street trees will not be necessary.

TDC 74.707. Street Tree Voluntary Planting.

Response: This project is not proposing to voluntarily plant street trees. Therefore, this standard does not apply.

TDC 74.708. Street Tree Emergencies.

Response: No street trees are proposed to be removed due to an emergency condition. Therefore, this standard does not apply.

TDC 74.710. Open Ground.

Response: No trees are proposed in the public right-of-way. Therefore, this standard does not apply.

TDC 74.715. Attachments to Trees.

Response: Except for vertical stakes to support planted trees, this project is not proposing to attach any of the listed attachments.

TDC 74.720. Protection of Trees During Construction.

Response: As shown in the Tree Preservation and Removal Plan (Sheet P5, Exhibit A), a tree protection fence is proposed around the root zones of trees located in the public right-of-way and adjacent property. No excavations or driveways are placed within six feet of a tree in the public right-of-way. Therefore, this standard is met.

TDC 74.725. Maintenance Responsibilities.

Response: The applicant understands they will be responsible for the health and maintenance of proposed trees. Therefore, this standard is met.

TDC 74.730. Notice of Violation.

Response: The applicant understands that a notice of violation may be issued for neglectful landscaping maintenance.

TDC 74.735. Trimming by City.

Response: The applicant understands that the City may conduct landscape maintenance after a notice of violation has been issued.

TDC 74.740. Prohibited Trees.

Response: No trees are proposed within the public right-of-way and all proposed trees on site conform with City standards as shown in the Tree Preservation and Removal Plan (Sheet p5, Exhibit A).

TDC 74.745. Cutting and Planting Specifications.

Response: No trees are proposed in the public right-of-way. Therefore, this standard does not apply.

TDC 74.750. Removal or Treatment by City.

Response: No trees within the public right-of-way are proposed to be removed and the treatment or removal of trees by the City is not necessary with this request. Therefore, this standard does not apply.

TDC 74.755. Appeal of Permit Denial.

Response: The applicant understands that a permit denial may be appealed for additional review.

TDC 74.760. Penalties.

Response: The applicant understands that a violation of this ordinance may result in a fine.

TDC 74.765. Street Tree Species and Planting Locations.

Response: No street trees, shrubs, or other plantings are proposed within the public right-of-way. Therefore, this standard does not apply.

I. CHAPTER 75 ACCESS MANAGEMENT

Response: Chapter 75, Access Management, regulates driveway access, street intersection, and turning movements.

TDC 75.020. Permit for New Driveway Approach

Response: This project is proposing a new driveway access onto SW Blake Street; therefore, these standards apply, and a driveway approach permit must be obtained. This project is requesting a Driveway Approach Permit as part of this application.

TDC 75.030. Driveway Approach Closure

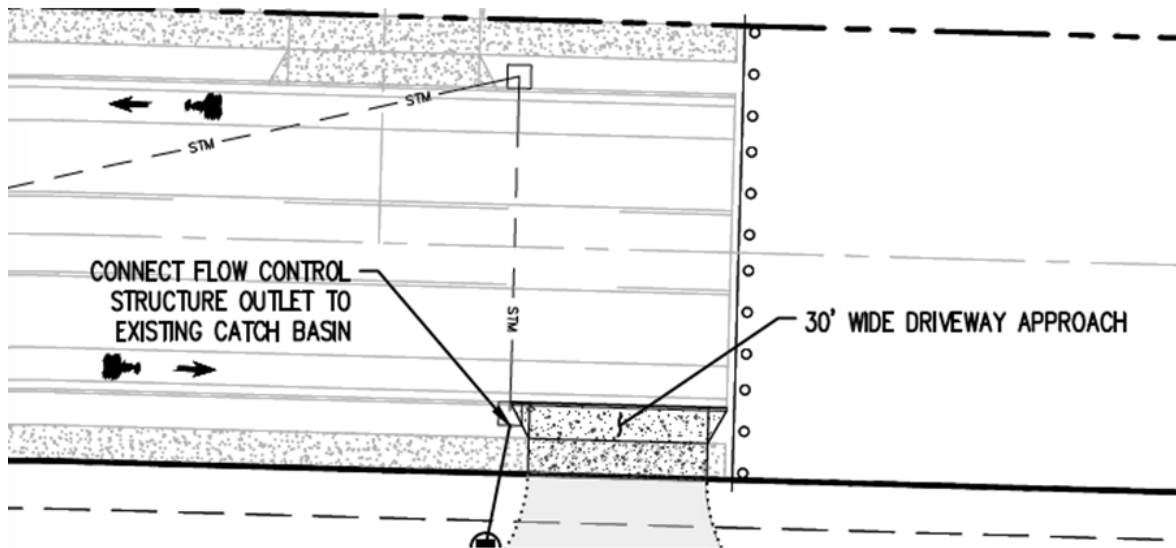
Response: This application is not proposing to close a driveway approach; therefore, these standards do not apply.

TDC 75.040. Driveway Approach Requirements

Response: This project is proposing a driveway approach for a single use and is not proposing a joint or cross access as part of this application. The subject site is located at the corner of SW Blake Street and SW 124th. SW Blake Street is a lower classification street. This project is proposing the driveway approach on SW Blake Street and not SW 124th. SW Blake Street and SW 124th are currently improved with sidewalks and meet the driveway approach requirements.

The proposed substation is considered in industrial use. The approach width requirements for industrial uses is 36 feet minimum and 40 feet maximum. The proposed driveway width is approximately 30 feet. The width of the proposed driveway is limited by the presence of an existing storm water curb inlet and the current extent of roadway improvements. See Figure 3. SW Blake Street ends in a street stub. There are no plans or need to extend SW Blake Street as part of this proposal. The storm water curb inlet is located approximately 30 feet from the end of the street stub. The proposed driveway is located between these two street features. The proposed 30 foot driveway is adequate to accommodate turning movements for PGE's vehicles according to current models. Constructing the driveway to meet the 36 foot requirement would exceed PGE's need for access to the site and would require either extending SW Blake Street or reconstructing an existing portion SW Blake Street to relocate the curb inlet and associated conveyance pipe.

Figure 3: Driveway Diagram



V. Conformance with Tualatin Development Code –Tree Removal Permit/Review

TDC 33.110. Tree Removal Permit/Review.

This application is proposing to remove 222 non-exempt trees and 84 exempt trees from the site facilitate the construction of the proposed substation. As such, the regulations of TDC 33.110 apply. The applicant is requesting a tree removal permit consistent with the applicable provisions in TDC 33.110 as part of this application. This application is requesting an Architectural Review in conjunction with the tree removal permit. The Architectural Review is subject to the same review type (Type II) as the tree removal permit.

A tree preservation plan is provided on Sheet P5 in Exhibit A. Sheet P5 also indicates which trees are proposed for removal and which trees are proposed to be preserved. Information detailing existing tree characteristics is provided on Sheets P2, P6 and P7 in Exhibit A.

Existing trees will be retained to the maximum extent possible. The proposed tree removals are the minimum necessary to allow access to the site and to accommodate construction of the substation. The Tonquin Substation is a facility that converts high voltage (115,000 volts) transmission level electricity travelling on high voltage lines down to a lower voltage (13,000 volts) so that it can be distributed out to neighborhoods for power supply to homes and businesses via local distribution lines. The high voltage of the equipment in the substation drives necessitates the need for more space between each individual piece of equipment, in addition to the clearance required for safe travel by workers and vehicles within the station while it is energized. It also dictates the distances needed between the equipment and other objects (including trees), which can conduct electricity and cause arcing. This prevents accidental electrical arcing between equipment and either other equipment or people, which would cause safety concerns for workers and nearby residents/pedestrians and electrical service reliability issues. The tree preservation plan notes that encroachments from grading and construction are not anticipated to have negative impacts to the tree health for trees

The proposed tree removals are necessary to facilitate the construction of a new substation. The proposed substation is subject to Architectural Review as part of this application. Therefore, approval criterion Section 33.110(5)(a)(iii) is met.

VI. Conclusion

As demonstrated in the findings above, the proposed substation meets the applicable Architectural Review and Tree Removal Permit requirements that are applicable to the development.