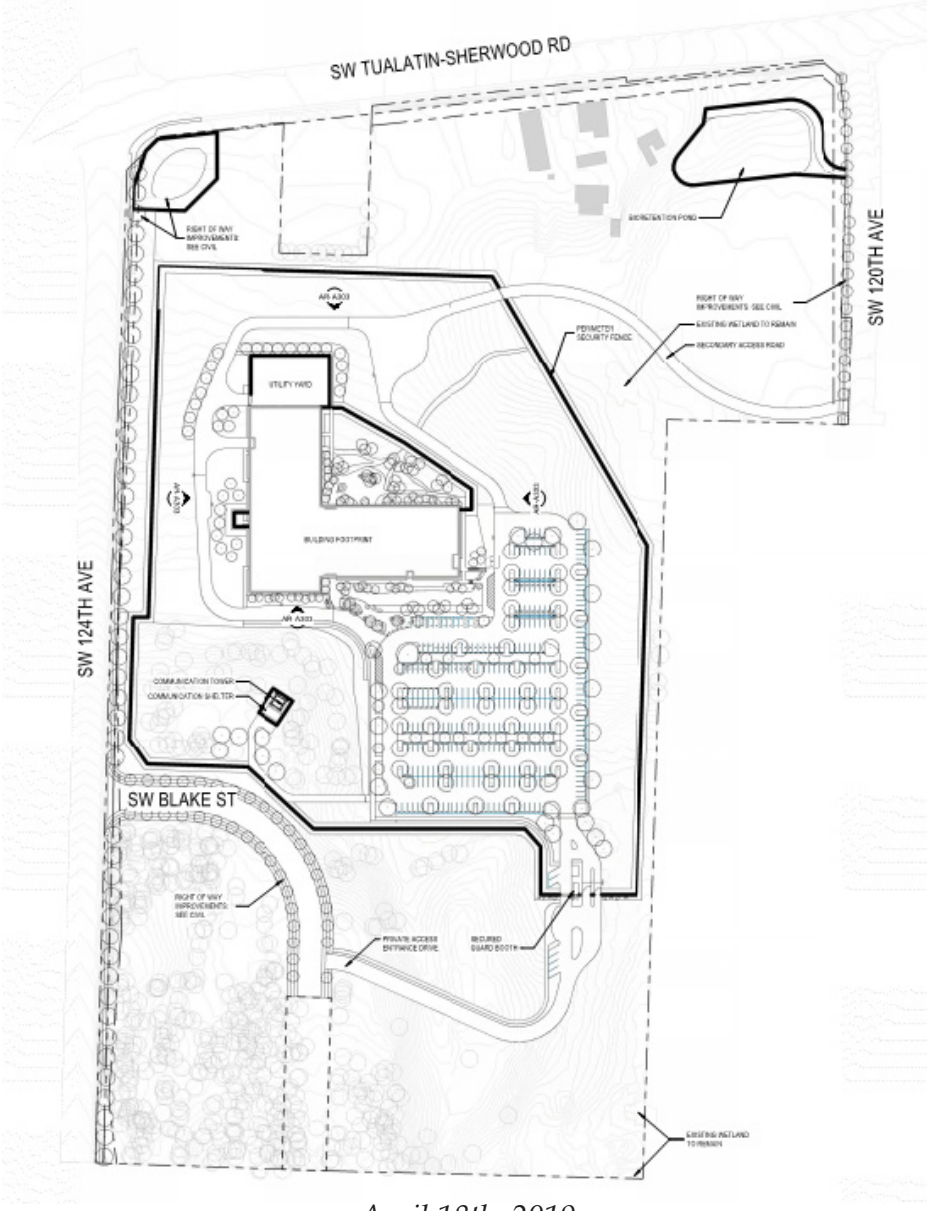
# Portland General Electric
# INTEGRATED OPERATIONS CENTER

## Introduction to Consolidated Conditional Use, Variance, and Architectural Review Application




*April 18th, 2019*

*Prepared by*

Winterbrook Planning

*In Collaboration with*

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SERA Architects
KPFF Consulting Engineers
Lancaster Engineering

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# Terms and Acronyms Used

The following terms and acronyms are used throughout this narrative - in the Introduction, Section 1: Conditional Use and Variance Review, and Section 2: Architectural Review.

| | |
|---|---|
| AR | Architectural Review |
| ARB | Architectural Review Board |
| CU | Conditional Use for the WCF |
| CWS | Clean Water Services |
| Emergency Helipad | Emergency Helicopter Landing Facility |

| | |
|---|---|
| FERC | Federal Energy Regulatory Commission |
| IOC or "the center" | Integrated Operations Center (PGE Regional Operations Headquarters) |
| MBP | Manufactured Business Park zone |
| PGE | Portland General Electric Company |
| ROW | Right-of-way |
| sf | Square foot |
| TDC | Tualatin Development Code |
| TSP | Tualatin Transportation System Plan (2013) |
| VAR | Variance from height and setback standards for the WCF |
| WCF or "the tower" | Wireless Communications Facility |

## Drawings

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|---|---|
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## General Information

| | |
|---|---|
| **Owner:** | Portland General Electric Company<br>121 SW Salmon St.<br>Portland, Oregon 97204<br>(Contact: Mark Lindley, Property Services Manager, 503-464-8102) |
| **Representative:** | Winterbrook Planning<br>610 SW Alder Street, Suite 810<br>Portland, Oregon 97205<br>(Contact: Ben Schonberger, Senior Planner, 503-827-4422) |
| **Location:** | 12150 SW Tualatin-Sherwood Road |
| **State ID No.:** | 2S1 27C 0701, 2S1 27C 0500 |
| **Zoning:** | Manufacturing Business Park (MBP) |
| **Case Types:** | Conditional Use (CU), Variances (VAR) and Architectural Review (AR) |
| **Procedure:** | Type III Review before the Planning Commission (CU/VAR) and the Architectural Review Board (AR) |
| **Pre-Application Mtg:** | February 13, 2019 |
| **Proposal:** | Integrated Operations Center (IOC) headquarters for Portland General Electric Company. Includes accessory wireless communications facility (WCF), outdoor mechanical and electrical equipment yard, emergency helipad, vehicle parking and circulation, landscaping, stormwater management, security fencing and related improvements. |

# SECTION 1: PROJECT NARRATIVE

## Project Summary

Portland General Electric provides regional transmission and distribution services to over 40 percent of Oregon's population, mostly in the Portland metro, Salem, and neighboring counties. PGE proposes to consolidate its regional operations management and technical services on the subject 43-acre site in Tualatin.

The proposed Integrated Operations Center functions as PGE's regional operations headquarters and is designed to achieve two key objectives: first, to minimize power supply disruptions and second, to continue to decarbonize the grid system. PGE management and technical staff based at the center will manage and monitor energy supply, transmission network, distribution network and physical and cyber security operations, while providing computer hardware and software support and operational analysis services. The center will also serve as the emergency operations headquarters for PGE as the need arises.

The center will co-locate technical staff conducting 24/7 functions relating to grid and power supply operations as well as physical and cyber security. The IOC will also contain PGE's emergency operations center, which is activated when storms or other large-scale event disrupts normal electrical operations.

The IOC will employ approximately 300 management and technical staff in a building of 108,000 square feet. The center also includes a stand-alone wireless communications facility (WCF) that is required for operational needs. The IOC will be located on a 43-acre site on the west edge of Tualatin with frontage on SW 124th Avenue. Secured primary access is from a newly-constructed segment of SW Blake Street, which will be extended into the site from SW 124th Avenue. A secured secondary access will be provided from SW 120th Avenue to the east.

## Organization of this Application

The IOC includes the corporate office / operations building and accessory uses, including the WCF (the tower), parking and circulation, outdoor mechanical and electrical equipment, security fencing, landscaping, and an emergency helipad. The consolidated land use application has four land use reviews:

1. Architectural review (AR) for the entire IOC (including the WCF),
2. Conditional use review for WCF,
3. Height variance for the WCF and
4. Setback variance for the security fence southwest of the tower, near the Blake Street extension.

The Architectural Review Board (ARB) will review the AR application. The Planning Commission will review the conditional use permit (CU) and both variances (VAR). Both applications are reviewed under Type III procedure. This requires a public hearing before the Planning Commission for the CU/VAR review, and separately, a public hearing before the ARB for the AR review.

This consolidated application is divided into three sections.

1. The **Introduction** includes background information and findings that apply to both the AR and the CU/VAR applications. The Introduction includes an overview of the consolidated application, identifies IOC design principles, describes the proposed program for development and site plan. This section also contains findings to demonstrate compliance with base zone use and development standards, since they apply to all development on the site.

2. **Section 1** addresses conditional use and variance criteria related to the WCF. Wireless communications facilities are a conditional use in the MBP zone. Conditional uses and variances are reviewed separately by the Tualatin Planning Commission. Two variances are requested.

    - Tower height: The height variance is necessary to allow the proposed IOC WCF to securely communicate with other PGE towers. As documented in the Radio Frequency Report (Appendix D), the proposed WCF must be a minimum of 140 feet high, taller than allowed in the MBP zone.
    - Fence setback: A second variance is necessary to allow a security fence within 50 feet of the SW Blake Street and SW 124th Avenue rights-of-way (ROW). The perimeter security fence is proposed at 20 feet from SW Blake Street and SW 124th Avenue at its closest point. The purpose of the setback variance is to preserve existing trees and better screen the tower from public view.

3. **Section 2** focuses on the AR application and demonstrates compliance with the TDC Chapters 73A through 73F – including site development and design standards related to the IOC. It also addresses the design components of the tower. This application will be reviewed by the ARB.

As discussed with city staff and as supported by TDC 32.020, the Planning Commission public hearing and CU/VAR decision will precede the ARB public hearing and AR decision.

## Existing Site Conditions

The existing site is currently undeveloped and sits at the juncture of SW Tualatin-Sherwood Road and SW 124th Avenue on the western edge of Tualatin. The 43-acre site was annexed into the city on January 28, 2019 (ANN 18-0002). As shown on Figure 1, the rectangular "notch" property at the north edge of the site is not owned by PGE and is not part of this application.

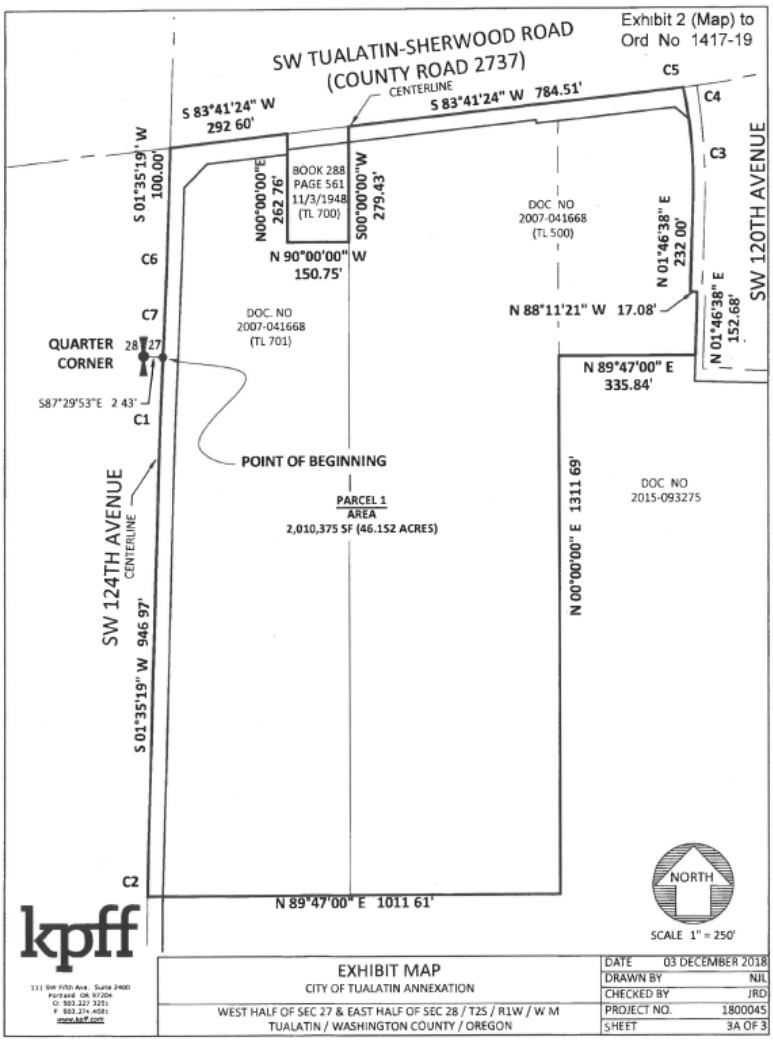


Figure 1. Map of site from city annexation application

Figure 2 is an aerial photograph of the subject property.

Figure 2. Oblique view of site, looking northwest.

Key elements of the site are as follows.

- The site slopes up from SW Tualatin-Sherwood Road, rising 75 feet in elevation from the roadway to a wooded knoll in the southwest corner of the site.
- The northern portion of the site is cleared of trees and has been used for farming activities. A cluster of six farm buildings, including a dwelling, garages, and sheds, is located at the north edge of the subject site, closest to SW Tualatin-Sherwood Road.
- The southwestern quarter of the site has a stand of mature trees that is most dense near SW 124th Avenue.
- Two small wetlands on the property are located at the southeast corner and east-central side of the site; these wetlands have been delineated and mapped (see Wetland Delineation and Flood Plain, Appendix H).

Most site development is proposed in the central, cleared portion of the site. The WCF is located within the grove of trees on the west side. Proposed development avoids both wetlands.

## Surrounding Land Uses

Industrial uses surround most of the site.

- Land to the south and east shares the same Manufacturing Business Park (MBP) zoning as the subject site, as does the "notch" property that fronts SW Tualatin-Sherwood Road.
- Tigard Sand and Gravel occupies land east and south of the site. Much of this land is an active gravel quarry.
- North of the site, opposite SW Tualatin-Sherwood Road, land is zoned General Manufacturing (MG). A heavy-duty truck parts supplier and a packaging supply business occupy this land.
- The land west of the site, across SW 124th Avenue, is outside city limits in unincorporated Washington County. This land is undeveloped. The Tualatin Water District proposes a water treatment facility on this property.

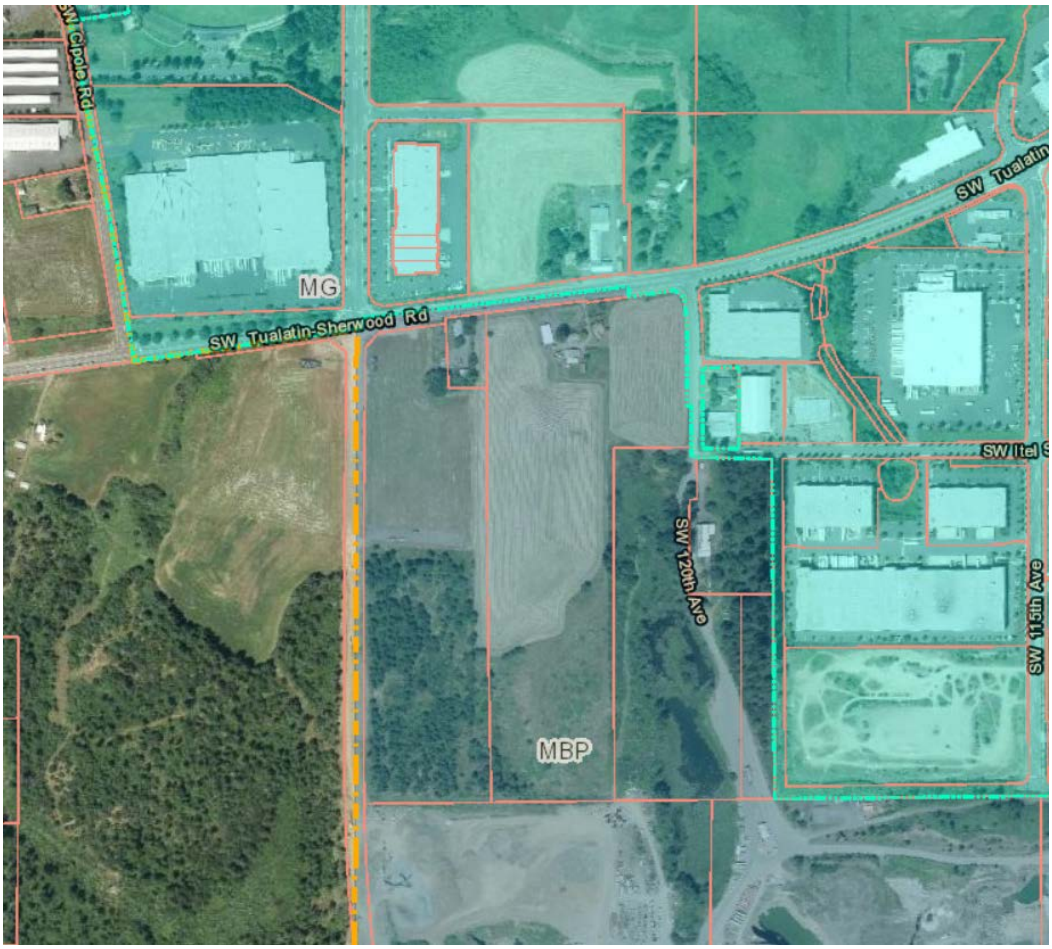


Figure 3. Aerial photo of site with zoning

The nearest residentially-zoned property is located about three-quarters of a mile (3,700 feet) southeast of the subject site. Land between the PGE site and these residences is occupied by other industrial properties and activities, including the gravel quarry, a railroad corridor, and a dense grove of trees.

## Design Principles

The IOC is designed as a secure and reliable facility enabling current operations and the deployment of emerging grid technologies in a collaborative and flexible work environment.

Eight design principles drive the center's design. Site planning and design choices flow from these principles, especially security imperatives. Thus, the IOC has been designed:

1. As a secure 24-hour facility that deters and protects against existing and emergent physical and cyber threats, meets current and future regulatory requirements, and protects staff and critical assets.
2. For resiliency and immediate occupancy and functionality during and after natural disasters such as a major earthquake.
3. For flexibility, growth and future reconfigurations that allow adaptive responses to changes in technology and the electrical power marketplace.
4. To incorporate technologies and capabilities that allow PGE to operate a smarter evolving grid for the benefit of its customers.
5. To allow for the inclusion of all necessary operational functions into a fully integrated operations center that facilitates enhanced communications and knowledge sharing across multiple work groups.
6. As a modern collaborative workplace that fosters a work atmosphere that encourages employees to work at higher performance levels.
7. As an attractive, flexible, and desirable workplace that will assist PGE with attracting and retaining a highly skilled and talented workforce.
8. To bring tangible value and benefit to PGE, its employees, customers and regulators.

### Security

IOC security needs are a major driver to structure and site design. The IOC is defined as "critical infrastructure" by the Federal Energy Regulatory Commission (FERC). The center has been designed to meet mandatory Critical Infrastructure Protection (CIP-014) reliability standards. (Order No. 802, Physical Security Reliability Standard, 149 FERC 61, 140 [2014]) The purpose of CIP-014 is:

> *"To identify and protect Transmission stations and Transmission substations, and their associated primary control centers, that if rendered inoperable or*

> *damaged as a result of a physical attack could result in widespread instability, uncontrolled separation, or Cascading within an Interconnection."* (CIP-014-01.A.3)

As a transmission facility owner, PGE is required to follow physical and programmatic requirements outlined in the CIP-014 that dictate enhanced security provisions for transmission stations. The need for enhanced security explains why the IOC building is in the middle of the site. Separating critical electrical grid infrastructure from surrounding public ROWs by large setbacks, vegetation, and perimeter fencing protect the IOC from outside access. At the same time, the IOC building and accessory structures are designed to blend into the existing landscape, minimize street presence and reduce the profile of the development.

## Site Plan and Design

The proposed site plan shows the location and orientation of buildings and infrastructure on the site. The main IOC building and parking area are in the north-central portion of the site. The SW Blake Street extension provides site access; a private driveway leads to a guarded gate before entering the parking area.

The WCF is proposed in an existing clearing surrounded by trees southwest of the main building and north of the SW Blake Street extension. Stormwater detention ponds are located at the far northeast and northwest corners of the site.

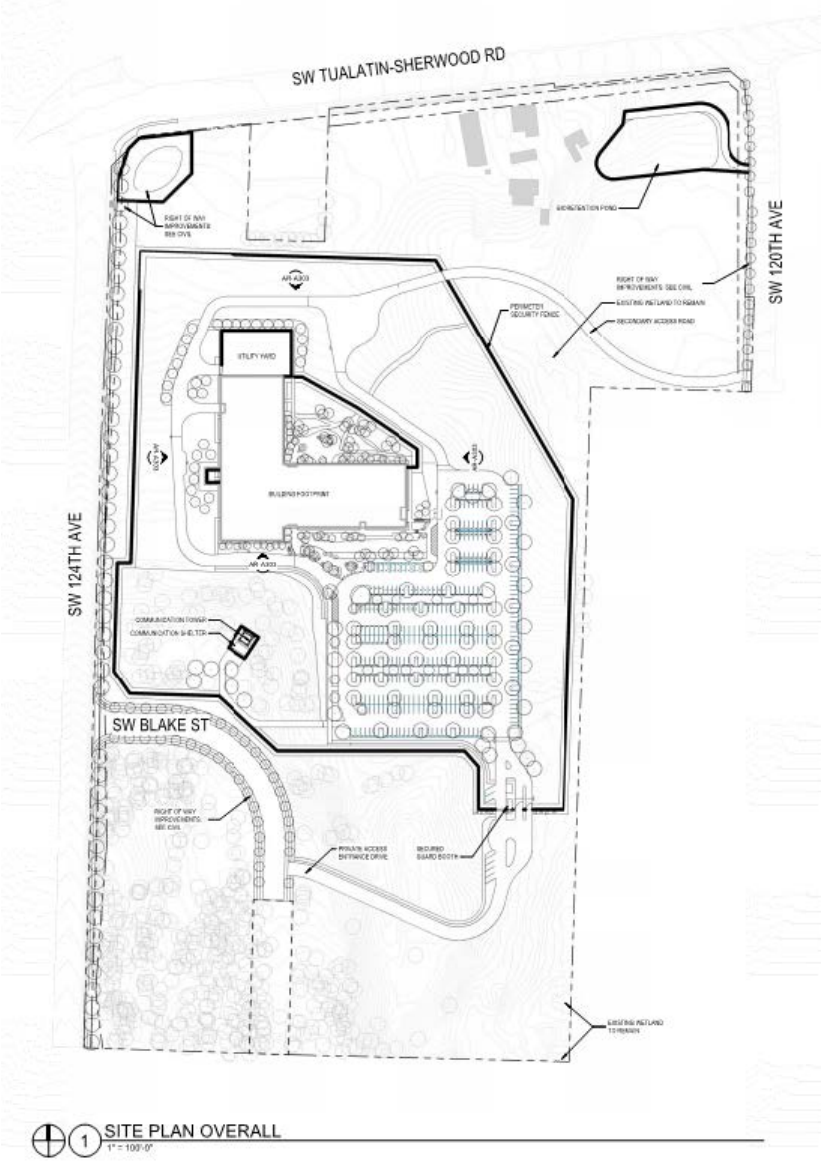


Figure 4. Site plan

Figure 5. Security fence example

A perimeter security fence completely encircles all project development, except for the approach driveway and stormwater detention ponds in the northeast and northwest corners of the site. The perimeter fence will be constructed of 8-foot metal pickets and includes security cameras and lighting inside the fence perimeter to deter unauthorized access. To gain access to the developed area of the property, employees and visitors must stop at a gated guard booth.

Where the property abuts SW Tualatin-Sherwood Road and most of SW 124th Avenue, the fence will be set back 50 feet from the property line, to comply with fence setback standards. Along SW Blake Street and some of SW 124th Avenue, a variance is requested to move the fence within 20 feet of the street lot line. The variance will allow more trees to be preserved and better screening for the proposed WCF.

A secondary access point, through a locked gate at the northeast corner of the secured perimeter area, is for emergency and service uses only. An emergency helicopter landing pad will be located at the juncture of two service/maintenance driveways leading to this secondary access and around the north side of the operations center building. The paved landing pad can also serve as an emergency vehicle turnaround. The circular, paved emergency helipad will be 100 feet in diameter, with in-ground lighting. This helipad will be available for use by PGE only in emergency situations such as major earthquakes, floods, wildfires or ice storms.

As shown on the following page, the proposed two-story, 108,000 square foot IOC building is L-shaped. The main building entry for all employees is on the south side of the new structure. Outdoor space for building users is in the "elbow" of the new structure. The building and its critical infrastructure and grid network technologies are, by design, deep within the site.

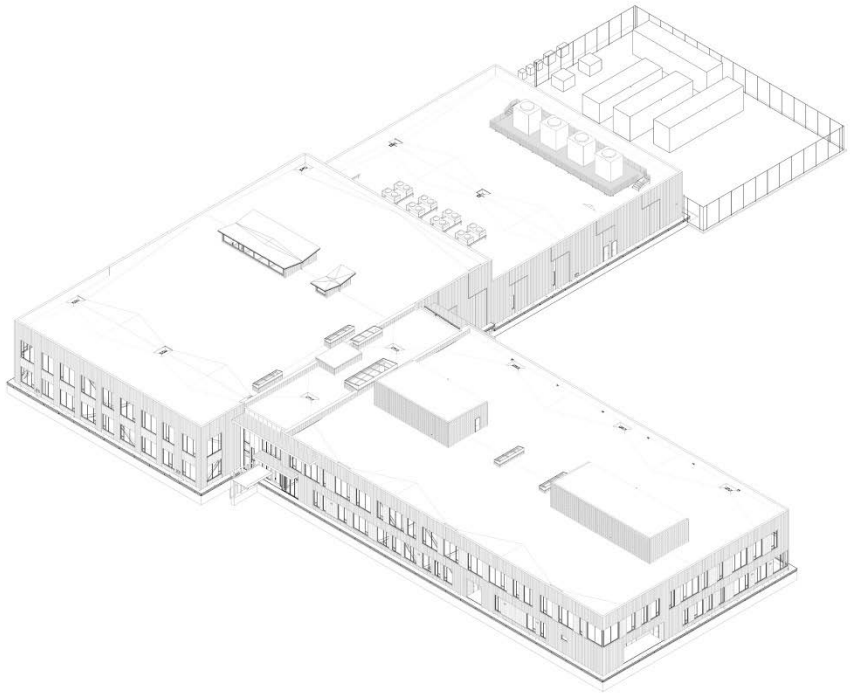

Figure 6. Axonometric elevation of IOC building

A proposed WCF will be part of PGE's regional microwave radio network that is critical to system monitoring and emergency response functions of the IOC. The tower will be a four-legged, self-supporting, lattice-style metal structure with attached microwave dish antennae.


Figure 7. Example WCF tower

The tower must be 140 feet tall to communicate with PGE's existing network of WCFs. A small utility shack will be located at the base of the tower. The WCF will be obscured by a grove of trees and enclosed within a security fence.

The landscape design connects the buildings and program together into a broader site improvement vision. Principles guiding the design are sustainability, simplicity, and durability. The landscape results in improved ecological functions including natural hydrology and wildlife values. Planting, grading and drainage approaches are integrated to allow stormwater management to be accommodated on site.

The design preserves many of the existing natural features of the site, including the forested area and drainage gully to the west and south of the proposed buildings. Where possible, existing trees are protected, and native trees will be planted as appropriate. Invasive or undesirable existing plantings will be removed to minimize future maintenance. Plant material that responds to native Oregon plant communities will be selected, focused on drought tolerance, durability, maintenance, and visual cohesion with the building design. The quantity, sizes, and species of plantings meets the Tualatin's requirements for landscape coverage, heritage tree replacement, and

parking lot shading. Landscaping screens the facility from the public ROW as much as possible.

Two areas are not proposed for development in this application and are reserved for future PGE use. They are:

- north of the fence along SW Tualatin-Sherwood Road (with the exception of stormwater detention ponds), and
- south of the driveway and SW Blake Street extension.

As noted above, the decision to set the IOC development back from SW Tualatin-Sherwood Road is to reduce the public profile of the facility and is largely based on security considerations.

## Site Uses

The following is an overview of the uses and activities that will occur on the site.

### IOC Office and Operations Building

The IOC building is the primary use of the site. The proposed use will be a regional office headquarters for PGE operations staff. Management and technical staff based at the center will manage and monitor regional energy supply, transmission and distribution network, and physical and cyber security operations, while providing computer hardware and software support and operational analysis services. The center will also serve as the emergency operations headquarters for PGE as the need arises.

The breakdown of activities within the building and their sizes are as follows:

| Use | Building Area (square feet) |
|---|---|
| Offices | 33,800 |
| Computer Support | 35,750 |
| Operations Analysis | 11,600 |
| Meeting Rooms | 15,250 |
| Data Center | 8,100 |
| Dining Area | 2,000 |
| Fitness Area | 1,500 |

A mechanical yard adjacent to the north side of the building will have mechanical, electrical, plumbing, and fire suppression equipment, including generators and fuel and water tanks. This area will be screened by vegetation and a separate security fence. Likewise, an outdoor area for employees is located in the "elbow" of the new building, and will be landscaped and limited by fencing.

### Wireless Communications Facility (WCF)

Constant monitoring of the regional electrical grid requires that the site have a 24/7 control and data center with uninterrupted communications capabilities. As part of this, the IOC and its wireless communication facility will become part of the existing, private, microwave radio network PGE operates throughout the region. The tower is located inside the perimeter security fence to maintain a high level of security.

The proposed WCF is accessory to the primary IOC (regional office headquarters) use and is separate from the main building and parking area. Per code definitions, the proposed tower is a "wireless communications facility" that is not attached to a building (TDC 39.650 and TDC 31.060).

### Emergency Helipad

The helipad is an emergency helicopter landing facility that will be used only in the event of a natural disaster or weather emergency, such as an earthquake, flood, wildfire fire or ice storm – and only by PGE staff or their authorized agents. No permanent storage for helicopters, fueling infrastructure, or other maintenance equipment will be located at the site. The 100-foot diameter pad will also be used as an emergency vehicle turnaround. Under routine conditions, the paved area will be used as the intersection of internal service driveways near the building.

The emergency helipad is permitted as an accessory use[1] per TDC 39.100(3)(c), which allows accessory uses in conjunction with the primary use. Accessory uses are defined as, "uses or activities that are subordinate and incidental to a primary use on a site." The primary use is the IOC building. The emergency helipad is subordinate to the IOC building because it:

1. would not have been proposed as a stand-alone facility if there were no IOC building on the site;
2. is exclusively for use by PGE and then only in emergency situations; and
3. is separate from, and much smaller than, the IOC building.

[1] The TDC does not offer a definition of helipad. Chapter 39 – Use Categories does not have a prescribed category that fits the proposed use.

### Other Accessory Uses

Other accessory uses on the site, like the helipad, directly relate to the integrated operations center use and are subordinate and incidental to the primary use. These accessory uses include parking, landscaping, the outdoor utility area, a guard booth at the site entrance, perimeter fencing, internal pedestrian pathways and service driveways, and stormwater management infrastructure. These accessory uses are common in campus-style developments and are clearly subordinate and incidental to the primary office /operations center use. None of these accessory uses would be necessary or even possible without the existence of the IOC office headquarters use.

# Base Zone Standards

The following section addresses use and development standards in the base Manufacturing Business Park (MBP) zone. These standards apply to all development on the site, including the new operations center building and the WCF. Quotes from the TDC are shown in *italics*.

### Chapter 64: Manufacturing Business Park Zone (MBP)

**Section 64.200 – Use Categories.**

*(1) Use Categories. Table 64-1 lists use categories Permitted Outright (P) or Conditionally Permitted (C) in the MBP zone. Use categories may also be designated as Limited (L) and subject to the limitations listed in Table 64-1 and restrictions identified in TDC 64.210. Limitations may restrict the specific type of use, location, size, or other characteristics of the use category. Use categories which are not listed are prohibited within the zone, except for uses which are found by the City Manager or appointee to be of a similar character and to meet the purpose of this zone, as provided in TDC 31.070.*
*(2) Overlay Zones. Additional uses may be allowed in a particular overlay zone. See the overlay zone Chapters for additional uses.[…]*

**Section 64.210 – Additional Limitations on Uses. […]**

*(3) Offices. Office uses are a permitted or conditional use as follows:*
*(a) Permitted Uses.*
*(i) Research and Development Offices. Research and development offices and laboratories for chemical, engineering, and physical sciences; medical and pharmaceutical products; alternative energy production from sources such as solar and wind; industrial products and consumer products.*
*(ii) Headquarters Offices. Corporate, regional, or district office headquarters are permitted outright if the headquarters is for any use permitted in this Code, the offices occupy at least 20,000 square feet, and no manufacturing is conducted that is otherwise not a permitted use in the MBP zone.[…]*

**Finding**: The proposed IOC use is a regional office headquarters for PGE operations staff. This use is a permitted use in the zone per Section 64.210(3)(ii).

(The detached WCF is an integral, accessory part of the IOC and is listed in Table 64-1 as a conditional use. Conditional use findings for the WCF are found in a separate section of this consolidated application.)

The IOC building is the primary use of the site. The proposed use will be a regional office headquarters for PGE operations staff. Management and technical staff based at

the center will manage and monitor regional energy supply, transmission and distribution network, and physical and cyber security operations, while providing computer hardware and software support and operational analysis services. The center will also serve as the emergency operations headquarters for PGE as the need arises.

The proposed regional headquarters will employ approximately 300 management and technical staff in a building of 108,000 square feet. Office uses occupy more than 20,000 square feet of the structure, and no manufacturing activities are proposed.

*(5) Outdoor Uses. All uses must be conducted wholly within a completely enclosed building, except off-street parking and loading, Basic Utilities, Wireless Communication Facilities, outdoor storage of materials and products directly related to the permitted use and outdoor play areas of child day care centers as required by state day care certification standards.*

**Finding**: As shown on the site plan, IOC office and operations uses occur within the enclosed building. The WCF, parking and circulation (including the emergency vehicle turnaround / helipad), and outdoor utility yard north of the main building are all permitted outdoor uses. These uses are also shown on the site plan.

A fenced mechanical yard adjacent to the north side of the building will have mechanical, electrical, plumbing, and fire suppression equipment, including generators and fuel and water tanks. These materials are "directly related to the permitted use." This area will be screened by vegetation and a separate security fence.

The proposed WCF is an accessory use that is critical to the monitoring and emergency response functions of the IOC. It is expressly listed above as an allowed outdoor use.

The helipad is an emergency helicopter landing facility that will be used only in the event of a natural disaster or weather emergency, such as an earthquake, flood, wildfire fire or ice storm – and only by PGE staff or their authorized agents. The 100-foot diameter paved area can also be used as an emergency vehicle turnaround. Under routine conditions, the paved area will be used as the intersection of internal service driveways. As described in more detail above, the helipad is subordinate and incidental to the primary use and therefore allowed as an accessory use.

Other uses on the site—parking, landscaping, a guard booth, perimeter fencing, internal pedestrian pathways and service driveways, and stormwater management infrastructure—are also accessory. That is, they directly relate to the primary integrated operations center use but are subordinate and incidental to it. None of these accessory outdoor uses would occur without the existence of the IOC office headquarters use.

**Section 64.300 – Development Standards.**

*Development standards in the MBP zone are listed in Table 64-2. Additional standards may apply to some uses and situations, see TDC 64.310.*

**Finding:** MPB zone development standards apply to primary, conditional, and accessory uses. All development standards are either met or a variance to the standard has been requested in Section 1 of this consolidated application. Two variances are proposed: (1) a height variance for the WCF and (2) a fence setback variance that will allow for greater preservation of existing trees and increased tower security.

Development standards for the site are found primarily in the base zone, Table 64-2. This section applies to all development in the zone, including the IOC, the tower, and all the accessory development on the site. Development standards that clearly are not applicable – such as standards for land within the RSIA boundary, land divisions and private streets – are not further addressed in this application.

**Table 64-2 Development Standards in the MBP Zone**

| STANDARD | REQUIREMENT | LIMITATIONS AND CODE REFERENCES | HOW STANDARD IS MET BY THIS DEVELOPMENT |
|---|---|---|---|
| **LOT DIMENSIONS** | | | |
| Minimum Lot Width | 100 feet | When lot has frontage on public street, minimum lot width at the street is 100 feet.<br><br>When lot has frontage on cul-de-sac street, minimum lot width at the street is 50 feet. | The tax lots have frontage along three different public streets – all of which exceed the 100-foot minimum standard.<br><br>Tax lot 2S127C 701: 216 ft. frontage along SW Tualatin-Sherwood Road; 945 feet of frontage along SW 124th Avenue.<br><br>Tax lot 2S127C 500: 716 ft. of frontage along SW Tualatin-Sherwood Road; 418 ft. of frontage along SW 120th Avenue. |
| **MINIMUM SETBACKS** | | | |
| Front | 30-50 feet | | Blake and 124th are "front" lot lines Closest non-fence structure is WCF tower, set back roughly 160 feet from Blake, and roughly 260 feet from |

| STANDARD | REQUIREMENT | LIMITATIONS AND CODE REFERENCES | HOW STANDARD IS MET BY THIS DEVELOPMENT |
|---|---|---|---|
| | | | 124th.<br><br>**Variance requested for security fence setback**. |
| Side | 0-100 feet | Determined through Architectural Review Process. No minimum setback if adjacent to railroad right-of-way or spur track. For a Corner Lot, the minimum setback must be 30-50 feet from a public street. | South property line is “side” lot line. Closest building is guard booth, approximately 490 feet from lot line. |
| Rear | 0-100 feet | Determined through Architectural Review Process. No minimum setback if adjacent to railroad right-of-way or spur track. | East side lot line is “rear” property line. Closest structure is guard booth, located approximately 130 feet from lot line. |
| Rear Setback Adjacent to Residential or Manufacturing Park District | 50 feet | | Not applicable. The site is not adjacent to any residential district.<br><br>The nearest residentially zoned area is approximately three-quarters of a mile from the subject property. |
| Parking and Circulation Areas Adjacent to Public Right-of-Way | 20-25 feet | -- | Parking area located approximately 130 feet from SW Blake, and approximately 450 feet from SW 124th |
| Parking and Circulation Areas Adjacent to any Other Property Line | 10 feet | | Parking area located approximately 130 feet from SW Blake, and approximately 450 feet from SW 124th |
| Fences | 50 feet | From public right-of-way. | In two locations, the perimeter fence is proposed within the 50’ setback area: (1) 20 feet along approximately 275 feet of SW 124th and (2) 20 feet |

| STANDARD | REQUIREMENT | LIMITATIONS AND CODE REFERENCES | HOW STANDARD IS MET BY THIS DEVELOPMENT |
|---|---|---|---|
| | | | from SW Blake Street.<br><br>**Therefore, a fence setback variance is requested.** |
| **STRUCTURE HEIGHT** | | | |
| Maximum Height | 65 feet | May be increased to 85 feet if yards adjacent to structure are not less than a distance equal to one and one-half times the height of the structure.<br><br>Flagpoles may extend to 100 feet. | The IOC building is two-stories and well below the 65' height maximum.<br><br>However, the proposed WCF will be 140 feet tall.<br><br>**Therefore, a height variance is requested for the WCF.** |
| Maximum Height Adjacent to Residential District | 28 feet | Measured at the 50-foot setback line, includes flagpoles. The building height may extend above 28 feet on a plane beginning at the 50-foot setback line at a slope of 45 degrees extending away from the 50-foot setback line. | Not applicable. The site is not adjacent to any residential district.<br><br>The nearest residentially zoned area is approximately three-quarters of a mile from the subject property. |

**Section 64.310 – Additional Development Standards.**

*(1) Industrial Master Plan. Minimum lot size, setbacks, maximum height, and other development standards may be modified by submittal of an Industrial Master Plan application. See TDC 33.050.*
*(2) Spur Rail Tracks. Spur rail tracks are not permitted within 200 feet of an adjacent residential district.*
*(3) Minimum Lot Size in RSIA.*

**Finding**: The above provisions are not applicable. This proposal does not include an Industrial Master Plan. However, height and setback variances are addressed in Section 1 of this narrative. No spur rail tracks are proposed. Map 9-5 shows that the site is not within the Metro RSIA.

*(4) Sound Barrier Construction. Sound barrier construction is required to mitigate the impact of noise associated with overhead doors and building mechanical equipment, including but not limited to heating, cooling and ventilation equipment, compressors, waste evacuation systems, electrical transformers, and other motorized or powered machinery located on the exterior of a building. Sound barrier construction must conform to the following standards:[…]*

**Finding**: Subsection (b) of this code section indicates that sound barriers are required to intercept "paths of 450 feet or less between a residential property in a residential planning district and" the noise-emitting object. The "nearest residential property in a residential planning district" to the subject property is 3,700 feet away to the southeast. Consequently, no sound barriers are required.

*(5) Wetland Conservation Lots. No minimum lot size, width or frontage requirement must apply to wetland conservation lots.*

**Finding**: The site is not a Wetland Conservation Lot. This standard does not apply.

*(6) Setbacks for Conditional Uses. Setback requirements for conditional uses must be as determined and approved through the Conditional Use Permit process in accordance with TDC Chapter 33 and the Architectural Review process in accordance with TDC Chapter 33 and TDC Chapter 73A through 73F. However, no setback greater than 50 feet may be required.*

**Finding**: The proposed regional operations headquarters is a permitted use, not a conditional use. The setback requirements for conditional uses do not apply. However, the above requirements are applicable to the detached wireless communication facility, which is a conditional use in the MBP zoning district. Setback requirements are addressed in Section 1 (CU/VAR) and Section 2 (AR) of this narrative.

*(7) Setback Reduction for Developments Adjacent to Greenways and Natural Areas. To preserve natural areas and habitat for fish and wildlife, the decision-authority may provide a front, side, or rear yard setback reduction for developments that are adjacent to Greenways or Natural Areas that dedicate land for conservation or public recreational purposes, in accordance with the following standards.*

**Finding**: The property is not adjacent to any greenways or natural areas.

### Additional Narrative and Findings

This document and prior sections are applicable to all development on the site. Findings for the conditional use (*i.e.*, the WCF), the tower height and fence setback variances, and the architectural review are located in separate sections since they are separate land use reviews and will be reviewed by different city decision-makers. These documents are Section 1: Conditional Use and Variance, and Section 2: Architectural Review.

# Portland General Electric
# INTEGRATED OPERATIONS CENTER

## Section 2: Architectural Review Findings


*April 18th, 2019*

*Prepared by*

Winterbrook Planning

*In Collaboration with*

Dreyfuss + Blackford Architecture
SERA Architects
KPFF Consulting Engineers
Lancaster Engineering

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# SECTION 2: ARCHITECTURAL REVIEW

PGE's consolidated land use application includes multiple sections, applicable to proposed corporate office / operations building and accessory uses, including the WCF tower, parking and circulation, outdoor mechanical and electrical equipment, security fencing, landscaping, and an emergency helipad. The sections address different city standards—the AR application reviewed by the ARB, and the CU/VAR applications reviewed by the Planning Commission.

- The **Introduction** includes an overview of the consolidated application, identifies IOC design principles, describes the proposed site plan, and demonstrates compliance with base Manufacturing Business Park (MBP) zone use and development standards.

- **Section 1** addresses conditional use and variance criteria related to the WCF. Wireless communications facilities are a conditional use in the MBP zone. Conditional uses and variances are reviewed by the Tualatin Planning Commission.

- **Section 2** (this section) focuses on the AR application and demonstrates compliance with the TDC Chapters 73A through 73F – including site development and design standards related to the IOC. It also addresses the design components of the tower.

Quotes from the TDC are presented in *italic font* followed by findings demonstrating compliance.

## Integrated Operations Center

The IOC will serve as PGE's regional operational and emergency response headquarters. Because the IOC is primarily an office building that is larger than 50,000 square feet, it is a subject to a Type III review by the ARB.

Importantly, the IOC is an atypical commercial use because it is:

1. defined as critical infrastructure,
2. not open to the public,
3. has highly restricted access, and
4. is surrounded by a security fence.

PGE is required to follow physical and programmatic requirements outlined in federal guidelines. These rules dictate enhanced security provisions for critical electrical grid infrastructure. Sites are protected from outside access by large setbacks, vegetation, and perimeter fencing. The IOC building and accessory structures are designed to blend into the existing landscape, minimize street presence and reduce the profile of the development. Because of these limitations and specialized requirements, design standards that normally apply to public-facing retail and office development require some interpretation regarding how they apply to the proposed IOC.

# Chapter 33: Architectural Review Approval Criteria

**Section 33.020 – Architectural Review**

*(2) Applicability.*
*(a) The following types of development are subject to Architectural Review:[…]*
*(i) Any exterior modifications to improved or unimproved real property;*
*(b) Examples of development subject to Architectural Review, include but are not limited to the following:[…]*
*(vi) New wireless communication facilities, and new attached wireless communication;[…]*
*(3) Types of Architectural Review Applications - Procedure Type. […]*
*(d) Large Commercial, Industrial, and Multifamily Development. Development applications that propose any of the following are subject to Type III Review by the Architectural Review Board as the hearing body:*
*(i) New Commercial Buildings 50,000 square feet and larger[…].*

**Finding**: The proposed commercial building is greater than 50,000 square feet and an exterior modification to real property. TDC 33.020(3)(d)(i) is applicable, and this project is therefore subject to a Type III Architectural Review. The WCF on site is also subject to AR per TDC 33.020(2)(b)(vi). The ARB will also review the tower design.

*(4) Application Materials. The application must be on forms provided by the City. In addition to the application materials required by TDC 32.140 (Application Submittal), the following application materials are also required: (a) The project name and the names, addresses, and telephone numbers of the architect, landscape architect, and engineer on the project;*
*(b) Existing conditions plan, site plan, grading plan, utility plan, landscape plan, and lighting plan all drawn to scale; (c) A materials board that includes example building materials and textures; (d) Title report; and (e) A Service Provider Letter from Clean Water Services.*

**Finding**: The submitted drawings and appendices to this narrative contain all the required elements listed above.

*(5) Approval Criteria… (c) Large Commercial, Industrial, and Multifamily Development. Applications for Large Commercial, Industrial, and Multifamily Development must comply with the applicable standards and objectives in TDC Chapter 73A through 73G.*

**Finding**: The proposed development is a large commercial development and therefore subject to the approval criteria in TDC Chapter 73A through 73G, as described in subsection (5)(c) above. Findings against each of these sections are provided later in this document.

*(6) Conditions of Approval. (a) Architectural Review decisions may include conditions of approval that apply restrictions and conditions that: (i) Protect the public from the potentially deleterious effects of the proposal; (ii) Fulfill the need for public facilities and services created by the proposal, or increased or in part attributable to the proposal; and (iii) Further the implementation of the requirements of the Tualatin Development Code. (b) Types of conditions of approval that may be imposed include, but are not limited to: […]*

**Finding**: The applicant understands that the ARB may apply conditions of approval where necessary to ensure compliance with TDC standards and criteria.

*(7) Modifications to Previously Approved Final Architectural Review Decisions. An applicant who wishes to modify a previously approved final Architectural Review decision may utilize one of the following procedures: […]*

**Finding**: This request is for an architectural review, not a modification to a previous review. This standard does not apply.

*(8) Effective Date. The effective date of an Architectural Review decision or Minor Architectural Review decision is the date the notice of decision is mailed.*
*(9) Permit Expiration. Architectural Review decisions (including Minor Architectural Review decisions) expire two (2) years from the effective date unless the applicant has received a building, or grading permit submitted in conjunction with a building permit application, substantial construction has occurred pursuant to the building permit, and an inspection has been performed by a member of the Building Division.*

**Finding**: PGE plans to begin construction immediately upon approval and issuance of land use and construction permits.

# Chapter 73A – Site Design

### Section 73A.010 – Site and Building Design Standards Purpose and Objectives.

*(1) Purpose. The purpose of the site and building design objectives and standards found in TDC 73A through TDC 73G is to promote functional, safe, innovative, and attractive sites and buildings that are compatible with the surrounding environment, including, but not limited to: (a) The building form, articulation of walls, roof design, materials, and placement of elements such as windows, doors, and identification features; and*

*(b) The placement, design, and relationship of proposed site elements such as buildings, vehicular parking, circulation areas, bikeways and bike parking, accessways, walkways, buffer areas, and landscaping.*
*(2) Objectives. The objectives of site and building design standards in TDC 73A through TDC 73G are to:*
*(a) Enhance Tualatin through the creation of attractively designed development and streetscapes;*
*(b) Encourage originality, flexibility, and innovation in building design;*
*(c) Create opportunities for, or areas of, visual and aesthetic interest for occupants and visitors to the site;*
*(d) Provide a composition of building elements which responds to function, land form, identity and image, accessibility, orientation and climatic factors;*
*(e) Conserve, protect, and restore fish and wildlife habitat areas, and maintain or create visual and physical corridors to adjacent fish and wildlife habitat areas;*
*(f) Enhance energy efficiency through the use of landscape and architectural elements; and*
*(g) Minimize disruption of natural site features such as topography, trees, and water features.*

**Finding:** The purpose and objectives listed above are not in themselves approval criteria. Nevertheless, the proposed development carries out the purpose and objectives of the site and building design by:

- locating the building and associated development in an appropriate location on a large site at the western edge of the city,
- orienting development to allow the use and ease of circulation while fulfilling critical and extremely strict site security demands,
- proposing a building form that reflects the design vocabulary and material palette of surrounding commercial and industrial development,
- integrating landscaping into the site that enhances the building and serves as screening where needed.

The building responds to its natural landscape elements by placing the building and parking area on cleared areas and mostly preserving a mature stand of trees on the west side of the property and establishing a modern and functional structure that will be an attractive and unobtrusive addition to this area of the city.

**Section 73A.100 - Single Family Design Standards**

**Section 73A.200 – Common Wall Design Standards**

**Finding:** The proposed development contains no residential uses. These sections do not apply.

**Section 73A.300 – Commercial Design Standards.**

*The following standards are minimum requirements for commercial development in all zones:*
*(1) Walkways. Commercial development must provide walkways as follows:*
*(a) Walkways must be a minimum of 6 feet in width;*
*(b) Walkways must be constructed of asphalt, concrete, or a pervious surface such as pavers or grasscrete (not gravel or woody material);*
*(c) Walkways must meet ADA standards applicable at time of construction or alteration;*
*(d) Walkways must be provided between the main building entrances and other on-site buildings, accessways, and sidewalks along the public right-of-way;*
*(e) Walkways through parking areas, drive aisles, and loading areas must be visibly raised and of a different appearance than the adjacent paved vehicular areas;*
*(f) Bikeways must be provided that link building entrances and bike facilities on the site with adjoining public right-of-way and accessways; and*
*(g) Outdoor Recreation Access Routes must be provided between the development's walkway and bikeway circulation system and parks, bikeways and greenways where a bike or pedestrian path is designated.*

**Finding:** As shown on the site plan, paved, minimum 6-foot-wide, ADA accessible walkways are provided in the following locations:

- Between the main building entrance and the parking lot
- On the south and west sides of the main building
- Around the west and south perimeter of the parking lot
- From the main building entrance to the guard booth
- From the SW Blake Street frontage to the guard booth

These pedestrian facilities will accommodate on-site pedestrian circulation for employees and visitors, while maintaining the necessary high level of access control and site security. The developed area of the site has only a single, highly-secure opening in the perimeter fence. Pedestrian connections outside the fence all funnel through this opening.

Bicycle access to the site is available between SW Blake Street and the main building via the controlled access point monitored by a gate and a guard booth. The IOC has ample bicycle parking both inside and outside the building, and entry for users will be via the main entry and around the west side of the parking lot.

*(2) Accessways.*
*(a) When Required. Accessways are required to be constructed when a common wall development is adjacent to any of the following:*
*(3) Drive-up Uses. Drive-up uses must comply with the following:*[…]

**Finding:** The proposed development is not a common wall development nor does it have any drive up uses. These standards do not apply.

*(4) Safety and Security. Commercial development must provide safety and security features as follows:*
*(a) Locate windows and provide lighting in a manner that enables tenants, employees, and police to watch over pedestrian, parking, and loading areas;*

**Finding:** As documented above and the Introduction section of this consolidated application, the site is purposefully isolated from surrounding streets for security reasons. The IOC will have 24-hour staffing and security monitoring, in addition to perimeter fencing and highly restricted access.

As shown on elevation drawings, the proposed building has generous windows that face pedestrian, parking, and loading areas that are on the south and west sides of the development area.

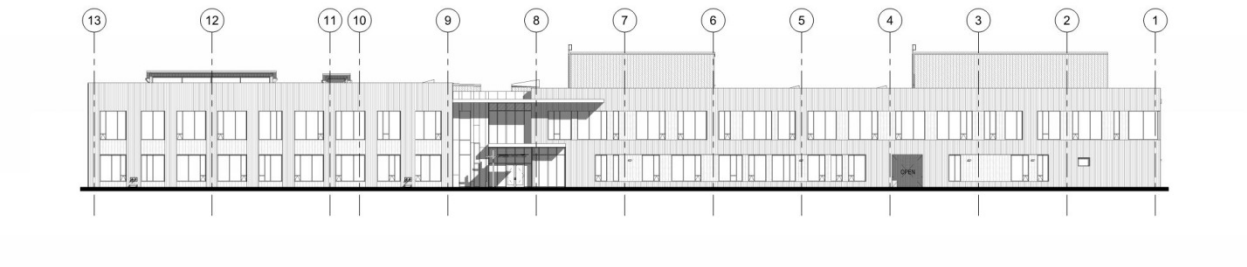



Figure 1. South elevation of building

In addition, the building has site lighting around the building to illuminate pedestrian zones, and lighting within the parking lot to illuminate this area for evening and night use.

*(b) Locate windows and interior lighting to enable surveillance of interior activity from the public right-of-way;*

**Finding:** The IOC is not a typical, public-facing office or retail commercial development, this standard is not directly applicable. Interior lighting will enable trained security staff to monitor interior activity from outside the building. Elevation drawings show generous glazing on the building exterior. There will be building-mounted light at the main entry canopies, at service entries, at the waste enclosure, and within the outdoor utility yard.

As documented in the above and the Introduction section of this application, the site is purposefully isolated from surrounding streets for security reasons. The IOC will have 24-hour monitoring in addition to fencing and highly restricted access. By design,

developed areas are at the center of the 43-acre site and are minimally visible from surrounding streets.

Site safety and security imperatives require that the IOC be set back a significant distance from streets, surrounded by security fencing to provide defensible space around the critical electrical infrastructure.

*(c) Locate, orient, and select exterior lighting to facilitate surveillance of on-site activities from the public right-of-way without shining into public rights-of-way or fish and wildlife habitat areas;*

**Finding:** Exterior lighting is shown on the lighting plan, which is included as part of the application drawing package. The lighting is designed to facilitate surveillance of on-site activities by trained security professionals on a 24-hour basis. Lighting on poles inside the security fence will be motion-activated. Planned lighting focuses on activity areas inside the perimeter fence and does not shine into public rights-of-way. There are no inventoried fish and wildlife habitat on the site; lighting will not be directed towards the two delineated wetlands.

As noted above, developed areas are at the center of the 43-acre site, to satisfy site safety and security imperatives. Site security requires that the building be set back a significant distance from streets, and that berms and fencing provide defensible space around the critical electrical infrastructure. With the exception of a perimeter fence near the Blake Street and 124th Avenue near the tower, site development will be set back a significant distance from the edge of adjacent rights-of-way.

*(d) Provide an identification system which clearly locates buildings and their entries for patrons and emergency services; and*

**Finding:** The new building will have a clearly designated identification number for patrons and emergency services. This application has been closely coordinated with the Tualatin Fire Department to enable future provision of those services. The only patrons of the highly secure new development will be PGE employees and visitors; the IOC is not open to the general public.

*(e) Above ground sewer or water pumping stations, pressure reading stations, water reservoirs, electrical substations, and above ground natural gas pumping stations must provide a minimum 6 foot tall security fence or wall.*

**Finding:** The IOC and related development will be enclosed behind an 8-foot security fence. At this point, the proposed development does not include any of the above listed elements; however, security fencing will be provided if any of the above-listed utilities are constructed on the site.

*(5) Service, Delivery, and Screening. Commercial development must provide service, delivery, and screening features as follows:*
*(a) Above grade and on-grade electrical and mechanical equipment such as transformers, heat pumps and air conditioners must be screened with sight obscuring fences, walls or landscaping;*

**Finding:** Proposed electrical or mechanical equipment such as that described will be screened, as shown on project drawings. Equipment that is within the outdoor mechanical/utility yard will be screened by a 14 foot fence and a landscaping. Rooftop mechanical equipment will be partially screened by parapet walls. Air-handling units will be enclosed in penthouses on the east wing of the building.

*(b) Outdoor storage must be screened with a sight obscuring fence, wall, berm or dense evergreen landscaping; and*

**Finding:** The entire IOC development will be screened by a combination of a landscaped berm and security fencing. The yard adjacent to the north side of the building will have building mechanical, electrical, plumbing, and fire suppression related equipment, including generators and fuel and water tanks. The mechanical yard will be screened with a 14-foot security fence and landscaping, as shown on site drawings.

*(c) Above ground pumping stations, pressure reading stations, water reservoirs; electrical substations, and above ground natural gas pumping stations must be screened with sight-obscuring fences or walls and landscaping.*

**Finding:** The proposed development does not include any of the above listed elements. Nevertheless, all the proposed development shown on the site plan is within an 8-foot security fence, which is required to protect critical electrical infrastructure. The only development outside the fence are driveways leading to the main entrance and secondary entrance, and a stormwater detention ponds in the northwest and northeast corners of the site, which will also be fenced.

*(6) Adjacent to Transit. Commercial development adjacent to transit must comply with the following:*
*(a) Development on a transit street designated in TDC Chapter 11 (Figure 11-5) must provide either a transit stop pad on-site, or an on-site or public sidewalk connection to a transit stop along the subject property's frontage on the transit street.*

**Finding:** Because the IOC is not typical, public-facing commercial development, this standard is not directly applicable. The IOC is not open to the public and is subject to FERC's CIP-014 rule, which requires a physical security plan restricting access from public streets to critical infrastructure.

The IOC and accessory uses will be surrounded by an 8-foot security fence to prevent unauthorized access to the site. The only employee and visitor access to the site comes from a private, gated driveway off SW Blake Street. The site has a gated emergency access from SW 120th Avenue. Neither SW Blake or SW 120th are shown on City Figure 11-5 as transit streets.

The site has frontage on SW Tualatin-Sherwood Road, which is shown on this map as "Partial Fixed Route Shuttle Service" and "Expansions of Fixed Route Bus Transit Service." However, providing an on-site public sidewalk connection from the IOC building to a transit stop along the SW Tualatin-Sherwood Road would be inconsistent with the security imperatives of the site. There is a public sidewalk connection to the site from SW 124th Avenue and SW Blake Road into the site, leading to the guard booth.

Under FERC regulations, it would not be feasible within the security parameters of the site to have an open pedestrian connection at the north side of the development area leading to SW Tualatin-Sherwood Road. A secure fence is a baseline requirement for the proposed development. The first design principle identified in the introductory narrative explains, *"The IOC will be designed as a secure 24 hour facility that deters and protects against existing and emergent physical and cyber threats, meets current and future regulatory requirements, and protects staff and critical assets."* Restricting access is a primary method for protecting the critical assets located on the site.

The actual building where employees work is located approximately 540 feet from the edge of this frontage. Employees are not permitted to have regular access to the building except through the main entry at the south side of the development area. In the long run, other development may occur north of the IOC security fence line, closer to SW Tualatin-Sherwood Road. Washington County has plans to build out future SW Tualatin Sherwood Road improvements that will likely include sidewalks, plantings, and transit stops. PGE would be willing to commit to constructing a "transit stop pad" on its property, should the northern portion of the site develop for a publicly-accessible commercial use in the future.

*(b) Development abutting major transit stops as designated in TDC Chapter 11 (Figure 11-5) must:[…]*

**Finding:** City Map Figure 11-5 shows that the property does not abut any major transit stops. These requirements do not apply.

**Section 73A.400 - Industrial Design Standards**

**Section 73A.400 - Institutional Design Standards**

**Finding:** The proposed IOC regional headquarters is not industrial or institutional development. These sections do not apply.

# Chapter 73B – Landscaping Standards

**Section 73B.010 – Landscape Standards Purpose and Objectives.**

*(1) Purpose. The purpose of this Chapter is to establish standards for landscaping within Tualatin in order to enhance the environmental and aesthetic quality of the City.*
*(2) Objectives. The objectives of this Chapter are to:*
*(a) Encourage the retention and protection of existing trees and requiring the planting of trees in new developments;*
*(b) Use trees and other landscaping materials to temper the effects of the sun, wind, noise, and air pollution.*
*(c) Use trees and other landscaping materials to define spaces and the uses of specific areas; and*
*(d) Use trees and other landscaping materials as a unifying element within the urban environment.*

**Finding:** Although landscaping standards purpose and objectives are not in themselves approval standards, the landscape design connects the buildings and program together into a broader site improvement vision. Principles guiding the design are sustainability, simplicity, and durability. The landscape results in improved ecological functions including natural hydrology and wildlife values. Planting, grading and drainage approaches are integrated to allow stormwater management to be accommodated on site.

The design preserves many of the existing natural features of the site, including the forested area and drainage gully to the west and south of the proposed buildings. Where possible, existing trees are protected, and native trees will be planted as appropriate. Invasive or undesirable existing plantings will be removed to minimize future maintenance. Plant material that responds to native Oregon plant communities will be selected, focused on drought tolerance, durability, maintenance, and visual cohesion with the building design. The quantity, sizes, and species of plantings meets the Tualatin's requirements for landscape coverage, heritage tree replacement, and parking lot shading. The landscape screens the facility from the public ROW as much as possible, providing views from the street that are mostly vegetation.

**Section 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:*

| *Zone* | *Minimum Area Requirement* | *Minimum Area Requirement with dedication for a fish and wildlife habitat** |
|---|---|---|
| *(6) Industrial Business Park Overlay District and MBP – must be approved through Industrial Master Plans* | *20% of the total area to be developed* | *Not applicable* |

**Finding:** The proposed development is in the MBP zone. As shown in a table on the Landscape Plan, 383,000 square feet of the developed area on the site (44%) will be landscaped. Developed areas include the area within the security fence, and driveways leading to it. (An industrial master plan listed under the "zone" column above is allowed but not required for new development in the MBP zone, and none is requested.)

**Section 73B.030 – Additional Minimum Landscaping Requirements for Common Wall Residential Uses.**

**Finding:** The proposed development contains no common wall residential uses. This standard does not apply.

**Section 73B.040 – Additional Minimum Landscaping Requirements for Commercial Uses.**

*(1) General. In addition to requirements in TDC 73B.020, commercial uses must comply with the following:*
*(a) All areas not occupied by buildings, parking spaces, driveways, drive aisles, pedestrian areas, or undisturbed natural areas must be landscaped.*
*(i) This standard does not apply to areas subject to the Hedges Creek Wetlands Mitigation Agreement.*

**Finding:** The northern and southern portions of the site will remain vacant and undeveloped. Existing tree cover and vegetation in the southern area will remain.

The Landscape Plan shows that all areas to be developed – not occupied by buildings, parking, driveways, drive aisles, pedestrian areas, and undisturbed natural areas – are landscaped. The site is not subject to the Hedges Creek Wetlands Mitigation Agreement.

Although not part of the Hedges Creek Wetlands Mitigation Agreement, the two wetlands on the site will be protected per CWS standards and will remain undisturbed.

*(b) Minimum 5-foot-wide landscaped area must be located along all building perimeters viewable by the general public from parking lots or the public right-of-way, but the following may be used instead of the 5-foot-wide landscaped area requirement:*
*(i) Pedestrian amenities such as landscaped plazas and arcades; and*
*(ii) Areas developed with pavers, bricks, or other surfaces, for exclusive pedestrian use and contain pedestrian amenities, such as benches, tables with umbrellas, children's play areas, shade trees, canopies.*

**Finding:** A five foot landscaped area is provided around the base of the building where it can be viewed from the parking lot. Because of topography, distance, and screening, much of the north and east sides of the building are not visible from any public right-of-way.

*(c) 5-foot-wide landscaped area requirement does not apply to:*
*(i) loading areas,*
*(ii) bicycle parking areas,*
*(iii) pedestrian egress/ingress locations, and*
*(iv) where the distance along a wall between two vehicle or pedestrian access openings (such as entry doors, garage doors, carports and pedestrian corridors) is less than 8 feet.*

**Finding:** A five foot landscaped area is provided around the base of the building where it can be viewed from the parking lot. Because of topography and screening, much of the building is not visible from public rights-of-way. Exceptions are applicable for bicycle parking and pedestrian ingress/egress areas from the main entrance to the parking area.

*(d) Development that abuts an RL or MP Zone must have landscaping approved through Architectural Review and must provide and perpetually maintain dense, evergreen landscaped buffers between allowed uses and the adjacent RL and MP zones.*

**Finding:** The proposed development does not abut any RL or MP zoned property. This standard does not apply.

*(2) Manufacturing Park (MP) – Wetland Buffer. Wetland buffer areas up to 50 feet in width may be counted toward the required percentage of site landscaping, subject to the following:*

**Finding:** The proposed development site is not in the MP zone. This standard does not apply. Nevertheless, wetland buffers will be provided around the two delineated wetlands per CWS standards.

**Section 73B.050 – Additional Minimum Landscaping Requirements for Industrial Uses**.

**Section 73B.060 – Additional Min. Landscaping Requirements for Institutional Uses.**

**Finding:** The proposed development is not industrial or institutional. These requirements do not apply.

**Section 73B.070 – Minimum Landscaping Standards for All Zones.**

*The following are minimum standards for landscaping for all zones.[…]*

**Finding:** Sheet L-4, Landscape Plan has details and specifications that demonstrate compliance with the planting standards contained in the detailed table in TDC 73B.070.

**Section 73B.080 – Minimum Standards Trees and Plants**

*The following minimum standards apply to the types of landscaping required to be installed for all zones. […]*

**Finding:** The proposed plans have details that demonstrate compliance with the planting standards contained in the detailed table in TDC 73B.080.

## Chapter 73C – Parking Standards

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

*(1) Applicability. Off-street parking and loading is required to be provided by the owner and/or developer, in all zones, whenever the following occurs:*
*(a) Establishment of a new structure or use;*
*(b) Change in use; or*
*(c) Change in use of an existing structure.*

**Finding:** The proposed development establishes both a new structure and use. This section applies.

*(2) General Requirements. Off-street parking spaces, off-street vanpool and carpool parking spaces, off-street bicycle parking, and off-street loading berths must be as provided as set forth in TDC 73C.100, unless greater requirements are otherwise established by the conditional use permit or the Architectural Review process.*
*(a) The following apply to property and/or use with respect to the provisions of TDC 73C.100:*
*(i) The requirements apply to both the existing structure and use, and enlarging a structure or use;*

*(ii) the floor area is measured by gross floor area of the building primary to the function of the particular use of the property other than space devoted to off-street parking or loading;*
*(iii) Where employees are specified, the term applies to all persons, including proprietors, working on the premises during the peak shift;*
*(iv) Calculations to determine the number of required parking spaces and loading berths must be rounded to the nearest whole number;*

**Finding:** The existing structures on the site at the north side of the property facing SW Tualatin-Sherwood Road will be removed before building occupancy. Parking and loading requirements will be applied to the new IOC building.

The quantity of parking provided is based on the entire building being a "general office" use. This is based on floor area and not employees. Calculations provided in response to the parking ratios are rounded up to the nearest whole number.

*(v) If the use of a property changes, thereby increasing off-street parking or loading requirements, the increased parking/loading area must be provided prior to commencement of the new use;*

**Finding:** The development proposed for the site is new, and off-street parking and loading for the new use will be provided prior to the commencement of that activity on the property.

*(vi) Parking and loading requirements for structures not specifically listed herein must be determined by the City Manager, based upon requirements of comparable uses listed;*

**Finding:** The proposed parking and loading requirements for the IOC building (a "general office" use) are specifically listed. Parking is not required for accessory uses, which include the WCF, parking and loading, outdoor equipment, emergency turnaround and helistop, landscaping, and fencing.

*(vii) When several uses occupy a single structure, the total requirements for off-street parking may be the sum of the requirements of the several uses computed separately or be computed in accordance with TDC 73.370(1)(m), Joint Use Parking;*

**Finding:** The proposed structure is occupied by office uses. This is a single use that does not need to be computed separately. This requirement does not apply.

*(viii) Off-street parking spaces for dwellings must be located on the same lot with the dwelling. Other required parking spaces may be located on a separate parcel, provided the parcel is not greater than five hundred (500) feet from the entrance to the building to be served, measured along the shortest pedestrian route to the building. The applicant must prove that the parking located on another parcel is functionally located and that there is safe vehicular and pedestrian*

*access to and from the site. The parcel upon which parking facilities are located must be in the same ownership as the structure;*

**Finding:** The proposed development and its parking are on the same parcel.

*(ix) Required parking spaces must be available for the parking of operable passenger automobiles of residents, customers, patrons and employees and must not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business;*

**Finding:** The Parking and Circulation Plan shows that the required parking is available for passenger automobiles for employees and visitors to the site. No storage of vehicles or materials, or parking of trucks will occur in these spaces.

*(x) Institution of on-street parking, where none is previously provided, must not be done solely for the purpose of relieving crowded parking lots in commercial or industrial zones; and*

**Finding:** The proposed development does not institute any on-street parking.

*(xi) Required vanpool and carpool parking must meet the 9-foot parking stall standards in Figure 73-1 and be identified with appropriate signage.*

**Finding:** The Parking and Ciruculation Plan shows 14 carpool spaces. These spaces meet the dimensional standards in Figure 73-1 and have the appropriate signage.

**Section 73C.020 – Parking Lot Design Standards.**

*A parking lot, whether an accessory or principal use, intended for the parking of automobiles or trucks, must comply with the following:*
*(1) Off-street parking lot design must comply with the dimensional standards set forth in Figure 73-1; (a) Exception: Parking structures and underground parking where stall length and width requirements for a standard size stall must be reduced by .5 feet and vehicular access at the entrance if gated must be a minimum of 18 feet in width.*

**Finding:** The Site Plan shows the parking lot to the southeast of the operations center building. The Parking and Circulation Plan shows that the parking lot design meets all the dimensional standards in Figure 73-1.

*(2) Parking lot drive aisles must be constructed of asphalt, concrete, or pervious concrete;*
*(3) Parking stalls must be constructed of asphalt, concrete, previous concrete, or a pervious surface such as pavers or grasscrete, but not gravel or woody material. Pervious surfaces, are encouraged for parking stalls in or abutting the Natural Resource Protection Overlay District, Other Natural Areas, or in a Clean Water Services Vegetated Corridor; (4) Parking lots must be maintained adequately for all-weather use and drained to avoid water flow across sidewalks;*

**Finding:** All the driving surfaces of the parking area will be paved, including aisles and stalls. The parking lot will be sloped and maintained to enable all-weather use and manage stormwater. There are no public sidewalks near the proposed lot.

*(5) Parking bumpers or wheel stops or curbing must be provided to prevent cars from encroaching on adjacent landscaped areas, or adjacent pedestrian walkways.*
*(6) Disability parking spaces and accessibility must meet ADA standards applicable at time of construction or alteration;*
*(7) Parking stalls for sub-compact vehicles must not exceed 35 percent of the total parking stalls required by TDC 73C.100. Stalls in excess of the number required by TDC 73C.100 can be sub-compact stalls;*

**Finding:** As shown on the Parking and Circulation Plan, a combination of curbs and wheel stops have been provided as needed to avoid encroachment on adjacent landscaped areas. Eight ADA spaces are provided in the northwest corner of the parking area consistent with ADA regulations. No sub-compact spaces have been provided.

*(8) Groups of more than 4 parking spaces must be so located and served by driveways that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley;*
*(9) Drives to off-street parking areas must be designed and constructed to facilitate the flow of traffic, provide maximum safety of traffic access and egress, and maximum safety of pedestrians and vehicular traffic on the site;*

**Finding:** As shown on the Site Plan, the parking lot is not located next to any street right-of-way, so no vehicles will be required to back into a street right-of-way. The long driveway from SW Blake Street to the parking lot on site has been designed to accommodate the flow of traffic into and out of the site and maximum safety of access and egress, considering the guard booth at the perimeter fence. Pedestrian movement will be along the western edge and runs the entirety of the parking area to the outdoor bike facilities and main building entrance.

*(10) On-site drive aisles without parking spaces, which provide access to parking areas with regular spaces or with a mix of regular and sub-compact spaces, must have a minimum width of 22 feet for two-way traffic and 12 feet for one-way traffic; When 90 degree stalls are located on both sides of a drive aisle, a minimum of 24 feet of aisle is required. On-site drive aisles without parking spaces, which provide access to parking areas with only sub-compact spaces, must have a minimum width of 20 feet for two-way traffic and 12 feet for one-way traffic;*

**Finding:** There are a variety of drive aisles within the parking area—without parking (*e.g.*, the approach to the guard booth), and with parking. As shown on the Parking and Circulation Plan, all of these aisles have widths of 22 feet or more. The parking lot is designed with 90 degree stalls; the aisle widths serving these stalls is at least 24 feet. The

drive aisles that serve as fire lanes meet width requirements for emergency vehicle access, which exceeds 24 feet.

*(11) Artificial lighting, must be deflected to not shine or create glare in a residential zones, street right-of-way, a Natural Resource Protection Overlay District, Other Natural Areas, or a Clean Water Services Vegetated Corridor;*

**Finding:** Parking lot lighting is provided as shown on the Lighting Plan. Lighting will be full cut off and directed downwards towards the driving and walking surfaces. A luminaire schedule with details is included with the Lighting Plan. Since the parking lot is distant from streets that abut the site, lights will not shine into any street rights-of-way. The site is almost three-quarters of a mile (3,700 feet) from the nearest residential area, and hundreds of feet from any natural resource overlay district or natural areas.

*(12) Parking lot landscaping must be provided pursuant to the requirements of TDC 73C.200; and*

**Finding:** As shown on the Landscape Plan and Site Plan, the parking area is interspersed with trees and other landscaping as required by TDC 73C.200. Specific responses are given below in that section.

*(13) Except for parking to serve residential uses, parking areas adjacent to or within residential zones or adjacent to residential uses must be designed to minimize disturbance of residents.*

**Finding:** The parking lot on site is 3,700 feet from the nearest residential zone. There will be no disturbance to residents at this distance.

**Section 73C.030 – Shared Parking Requirements[…]**

**Section 73C.040 – Joint Use Parking Requirements[…]**

**Finding:** No shared parking or joint use parking is proposed. All the off-street parking on the site will be for exclusive use by employees or visitors to the site.

**Section 73C.050 – Bicycle Parking Requirements and Standards.**

*(1) Requirements. Bicycle parking facilities must include:*
*(a) Long-term parking that consists of covered, secure stationary racks, lockable enclosures, or rooms in which the bicycle is stored;*
*(i) Long-term bicycle parking facilities may be provided inside a building in suitable secure and accessible locations.*
*(b) Short-term parking provided by secure stationary racks (covered or not covered), which accommodate a bicyclist's lock securing the frame and both wheels.*

**Finding:** The on-site bicycle parking includes both long-term and short-term racks. 22 Long-term spaces are provided within the building in a secure room with a separate entrance to the exterior. In addition, 32 short-term staple-type racks are provided outside the building on the south side of the structure, as shown on the Parking and Circulation Plan.

*(2) Standards. Bicycle parking must comply with the following:*
*(a) Each bicycle parking space must be at least six feet long and two feet wide, with overhead clearance in covered areas must be at least seven feet;*
*(b) A five (5) foot-wide bicycle maneuvering area must be provided beside or between each row of bicycle parking. It must be constructed of concrete, asphalt, or a pervious hard surface such as pavers or grasscrete, and be maintained;*
*(c) Access to bicycle parking must be provided by an area at least three feet in width. It must be constructed of concrete, asphalt, or a pervious hard surface such as pavers or grasscrete, and be maintained;*
*(d) Bicycle parking areas and facilities must be identified with appropriate signing as specified in the Manual on Uniform Traffic Control Devices (MUTCD) (latest edition). At a minimum, bicycle parking signs must be located at the main entrance and at the location of the bicycle parking facilities;*
*(e) Bicycle parking must be located in convenient, secure, and well-lighted locations approved through the Architectural Review process. Lighting, which may be provided, must be deflected to not shine or create glare into street rights-of-way or fish and wildlife habitat areas;*
*(f) Required bicycle parking spaces must be provided at no cost to the bicyclist, or with only a nominal charge for key deposits, etc. This does not preclude the operation of private for-profit bicycle parking businesses;*
*(g) Bicycle parking may be provided within the public right-of-way in the Core Area Parking District subject to approval of the City Engineer and provided it meets the other requirements for bicycle parking; and*
*(h) The City Manager or the Architectural Review Board may approve a form of bicycle parking not specified in these provisions but that meets the needs of long-term and/or short-term parking pursuant to Architectural Review.*

**Finding:** Bike parking will be provided as shown on the Parking and Circulation Plan. Indoor parking is provided through a secondary entry in the front (south side) of the building. The short-term bike parking area will be outside of this secondary entry, adjacent to the building. This bike parking area is paved, lighted, close to the main entrance of the building, within a highly secure facility, and spaced to meet all the listed maneuvering standards.

**Section 73C.060 – Transit Facility Conversion.**

*Parking on existing residential, commercial, and industrial development may be redeveloped as a transit facility as a way to encourage the development of transit supportive facilities such as bus stops and pullouts, bus shelters and park and ride stations. Parking spaces converted to such*

*uses in conjunction with the transit agency and approved through the Architectural Review process will not be required to be replaced.*

**Finding:** No redevelopment is proposed. This standard is not applicable.

**Section 73C.100 – Off-Street Parking Minimum/Maximum Requirements.**

*(1) The following are the minimum and maximum requirements for off-street motor vehicle parking in the City, except these standards do not apply in the Core Area Parking District. The Core Area Parking District standards are in TDC 73C.110.*

| ***USE*** | ***MINIMUM MOTOR VEHICLE PARKING*** | ***MAXIMUM MOTOR VEHICLE PARKING*** | ***BICYCLE PARKING*** | ***PERCENTAGE OF BICYCLE PARKING TO BE COVERED*** |
|---|---|---|---|---|
| *(e) Commercial* | | | | |
| *(vi) General office* | *2.70 spaces per 1,000 square feet of gross floor area* | *Zone A: 3.4 spaces per 1,000 square feet of gross floor area*<br><br>*Zone B: 4.1 spaces per 1,000 square feet of gross floor area* | *2, or 0.50 spaces per 1,000 gross square feet, whichever is greater* | *First 10 spaces or 40%, whichever is greater* |

**Finding:** The proposed development is an office headquarters use. This most closely fits the category "general office" listed in the parking table under section (1)(e)(vi).

The required ratio for motor vehicle parking is 2.7 - 4.1 spaces per 1,000 square feet. At 108,000 square feet, the motor vehicle space requirement is a range: 292 spaces minimum and 443 spaces maximum. The site plan shows 338 spaces – within the required range.

The required ratio for bike parking is 0.5 spaces per 1,000 square feet, of which 40 percent must be covered. At 108,000 square feet, 54 bike parking spaces are required. 22 of which must be covered. The site provides 54 total bike parking spaces, 22 of which are interior to the building and therefore covered. This meets the standard.

*(2) In addition to the general parking requirements in subsection (1), the following are the minimum number of off-street vanpool and carpool parking for commercial, institutional, and industrial uses.*

| *Number of Required Parking Spaces* | *Number of Vanpool or Carpool Spaces* |
|---|---|
| *0 to 10* | *1* |
| *10 to 25* | *2* |
| *26 and greater* | *1 for each 25 spaces* |

**Finding:** The proposed parking area has 338 parking spaces. This results in a requirement for 14 carpool spaces. 14 carpool spaces are provided as shown on the Parking and Circulation plan. Therefore, the requirement is met.

*Section 73C.110 – Core Area Parking District Minimum Parking Requirements. Uses in the Core Area Parking District must comply with the following parking requirements:[…]*

**Finding:** The proposed development is not in the Core Area Parking District. This requirement does not apply.

**Section 73C.120 – Off-Street Loading Facilities Minimum Requirements.**

*(1) The minimum number of off-street loading berths for commercial, industrial, and institutional uses is as follows:*

| ***Use*** | ***Square Feet of Floor Area*** | ***Number of Berths*** | ***Dimensions of Berth*** | ***Unobstructed Clearance of Berth*** |
|---|---|---|---|---|
| ***Commercial*** | *Less than 5,000* | *0* | *0* | *0* |
| | *5,000 - 25,000* | *1* | *12 feet x 25 feet* | *14 feet* |
| | *25,000 - 60,000* | *2* | *12 feet x 35 feet* | *14 feet* |
| | *60,000 and over* | *3* | *12 feet x 35 feet* | *14 feet* |

*(2) Loading berths must not use the public right-of-way as part of the required off-street loading area.*

*(3) Required loading areas must be screened from public view, public streets, and adjacent properties by means of sight-obscuring landscaping, walls or other means, as approved through the Architectural Review process.*

**Finding:** Consistent with requirements for commercial uses, three off-street loading berths (delivery unloading areas) are proposed for IOC functions. As shown on the AR-L090, two delivery unloading areas are located on the west side of the building, adjacent to the utility yard and the north portion of the main buildings. A third delivery unloading area is adjacent to the exterior waste area at the southeast corner of the main building. The west delivery unloading areas and east delivery area near the main building entry are all larger than the minimum 12 feet by 35 feet requirement. All three delivery unloading areas are uncovered and have unobstructed berth clearance of 14 feet. Since all delivery unloading areas are within the security fence perimeter on private property, public ROWs are not used as loading berth areas in this development.

The delivery unloading areas only service the IOC building, and the IOC building is set deep within a 43-acre site. All delivery areas are within a security fence perimeter that acts as a screen for all IOC activities from public ROWs, public view, and adjacent properties. Additionally, the two delivery unloading areas on the west side of the building are screened from the public by a row of trees along SW 124th, and additional trees planted closer to the drive aisle delivery access. Berms and an oak savannah planting mix are also used as screening materials for the west side delivery unloading areas. The east delivery unloading area is screened from public view by both the security perimeter fence and the parking lot landscaping. Views of the delivery unloading area are obstructed by three parking islands planted with trees – two to the east, one for the south. The screening around the exterior waste storage area screens the delivery unloading area from the north.

*(4) Required loading facilities must be installed prior to final building inspection and must be permanently maintained as a condition of use.*
*(5) The off-street loading facilities must in all cases be on the same lot or parcel as the structure they are intended to serve. In no case must the required off-street loading spaces be part of the area used to satisfy the off-street parking requirements.*

**Finding:** All delivery unloading areas are a planned improvement with the proposed IOC, and they will be installed prior to the final building inspection. All three delivery unloading areas are on the same lot as, and will serve, the IOC.

*(6) A driveway designed for continuous forward flow of passenger vehicles for the purpose of loading and unloading children must be located on the site of a school or child day care center having a capacity greater than 25 students.*

**Finding:** The IOC is a commercial use. This standard does not apply.

**Section 73C.130 – Parking Lot Driveway and Walkway Minimum Requirements.**

*Parking lot driveways and walkways must comply with the following requirements:[…]*
*(2) Commercial Uses. Ingress and egress for commercial and institutional uses must not be less than the following:*

| ***Required Parking Spaces*** | ***Minimum Number Required*** | ***Minimum Pavement Width*** | ***Minimum Pavement Walkways, Etc.*** |
|---|---|---|---|
| *1-99* | *1* | *32 feet for first 50 feet from ROW, 24 feet thereafter* | *Curbs required; walkway 1 side only* |
| *100-249* | *2* | *32 feet for first 50 feet from ROW, 24 feet thereafter* | *Curbs required; walkway 1 side only* |
| *Over 250* | *As required by City Manager* | *As required by City Manager* | *As required by City Manager* |

**Finding:** The proposed development requires 292 parking spaces (338 are provided). Consequently, the parking area requires ingress and egress, minimum pavement width, and minimum pavement walkways "as required by city manager."

The proposed parking lot plan shows one primary point of ingress and egress, to maintain a high level of site security. There is a second ingress/egress path from the parking lot to the northeast and SW 120th Avenue, which will be used in case of emergencies. The width of the driveway leading to the parking area is 26 feet. The walkway along the driveway and circulating along the west edge of the parking area to the main building entrance is a minimum of six feet wide. This presents a generous and appropriate environment for pedestrian activity, while maintaining smooth circulation for vehicles.

*(5) One-way Ingress or Egress. When approved through the Architectural Review process, one-way ingress or egress may be used to satisfy the requirements. However, the hard surfaced pavement of one-way drives must not be less than 16 feet for multi-family residential, commercial, or industrial uses.*

**Finding:** The proposed ingress and egress from the parking area is two-way. No one-way drives are proposed.

*(6) Maximum Driveway Widths and Other Requirements.*

*(a) Unless otherwise provided in this chapter, maximum driveway widths for Commercial, Industrial, and Institutional uses must not exceed 40 feet.*
*(b) Driveways must not be constructed within 5 feet of an adjacent property line, unless the two adjacent property owners elect to provide joint access to their respective properties, as provided by TDC73C.040.*
*(c) The provisions of subsection (b) do not apply to townhouses and duplexes, which are allowed to construct driveways within 5 feet of adjacent property lines.*
*(d) There must be a minimum distance of 40 feet between any two adjacent driveways on a single property unless a lesser distance is approved by the City Manager.*
*(e) Must comply with the distance requirements for access as provided in TDC 75.*
*(f) Must comply with vision clearance requirements in TDC 75.*

**Finding:** The proposed main driveway width from SW Blake Street is 26 feet, as shown on the site plan. The driveway access is located much farther than 5 feet from any property line

## Parking Lot Landscaping

### Section 73C.200 – Parking Lot Landscaping Standards Purpose and Applicability.

*(1) **Purpose.** The goals of the off-street parking lot standards are to create shaded areas in parking lots, to reduce glare and heat buildup, provide visual relief within paved parking areas, emphasize circulation patterns, reduce the total number of spaces, reduce the impervious surface area and stormwater runoff, and enhance the visual environment. The design of the off-street parking area must be the responsibility of the developer and should consider visibility of signage, traffic circulation, comfortable pedestrian access, and aesthetics.*
*(2) **Applicability.** Off-street parking lot landscaping standards apply to any surface vehicle parking or circulation area.*

**Finding:** The proposed site plan includes a parking area that is subject to the landscaping standards of this section.

### Section 73C.210 – Common Wall Parking Lot Landscaping Requirements.[…]

**Finding:** The proposed development does not have common wall development. This standard does not apply.

### Section 73C.220 – Commercial Parking Lot Landscaping Requirements.

*Commercial uses must comply with the following landscaping requirements for parking lots in all zones:*
*(1) General. Locate landscaping or approved substitute materials in all areas not necessary for vehicular parking and maneuvering.*

**Finding:** The proposed parking area has landscaping in all areas that are not necessary for parking and maneuvering. This includes the areas around the edge of the parking lot but within the perimeter fence, and islands between parking spaces.

*(2) Clear Zone. Clear zone required for the driver at ends of on-site drive aisles and at driveway entrances, vertically between a maximum of 30 inches and a minimum of 8 feet as measured from the ground level.*
*(a) Exception: does not apply to parking structures and underground parking.*

**Finding:** The parking lot plan contains clear zones at the ends of on-site drive aisles as indicated.

*(3) Perimeter. Minimum 5 feet in width in all off-street parking and vehicular circulation areas, including loading areas and must comply with the following.*
*(a) Deciduous trees located not more than 30 feet apart on average as measured on center;*
*(b) Shrubs or ground cover, planted so as to achieve 90 percent coverage within three years;*
*(c) Plantings which reach a mature height of 30 inches in three years which provide screening of vehicular headlights year round;*
*(d) Native trees and shrubs are encouraged; and*
*(e) Exception: Not required where off-street parking areas on separate lots are adjacent to one another and connected by vehicular access.*

**Finding:** As shown on the site plan and landscape plan, there is perimeter landscaping in all parking and vehicular circulation areas that meet the planting standards identified above.

*(4) Landscape Island. Minimum 25 square feet per parking stall must be improved with landscape island areas and must comply with the following.*
*(a) May be lower than the surrounding parking surface to allow them to receive stormwater run-off and function as water quality facilities as well as parking lot landscaping;*
*(b) Must be protected from vehicles by curbs, but the curbs may have spaces to allow drainage into the islands;*
*(c) Islands must be utilized at aisle ends to protect parked vehicles from moving vehicles and emphasize vehicular circulation patterns;*
*(d) Landscape separation required for every eight continuous spaces in a row.*
*(e) Must be planted with one deciduous shade trees for every four parking spaces; Required trees must be evenly dispersed throughout the parking lot;*
*(f) Must be planted with groundcover or shrubs;*
*(g) Native plant materials are encouraged;*
*(h) Landscape island areas with trees must be a minimum of five feet in width (from inside of curb to curb);*
*(i) Required plant material in landscape islands must achieve 90 percent coverage within three years; and*
*(j) Exceptions:*

*(i) Landscape island requirements do not apply to Duplexes and Townhouses; and*
*(ii) Landscape square footage requirements do not apply to parking structures and underground parking.*

**Finding:** Landscape islands are provided in the parking lot in accordance with the requirements above, as demonstrated on the site plan and landscape plan. Area calculations are provided in a table on the plan.

*(5) Driveway Access. For lots with 12 or more parking spaces, site access from the public street must be defined by:*
*(a) Landscape area at least 5 feet in width on each side of the site access;*
*(b) Landscape area must extend 25 feet from the right-of-way line; and*
*(c) Exceptions: Does not apply to parking structures and under-ground parking which must be determined through the Architectural Review process.*

**Finding:** The driveway access from SW Blake Street is landscaped along the first 25 feet from the ROW line, as shown on the Landscape Plan.

**Section 73C.230 – Industrial Parking Lot Landscaping Requirements. […]**

**Section 73C.240 – Institutional Parking Lot Landscaping Requirements […]**

**Finding:** The proposed development is not industrial or institutional. These sections do not apply.

# Chapter 73D – Waste and Recyclables Management Standards

**Section 73D.010 – Applicability and Objectives.**

*(1) Applicability. The requirements of this Chapter apply to all new or expanded:*
*(a) Common wall residential developments containing five or more units;*
*(b) Commercial developments;*
*(c) Industrial developments;*
*(d) Institutional developments.*
*(2) Objectives. Mixed solid waste and source separated recyclable storage areas should be designed to the maximum extent practicable to:*
*(a) Screen elements such as garbage and recycling containers from view;*
*(b) Ensure storage areas are centrally located and easy to use;*
*(c) Meet dimensional and access requirements for haulers;*
*(d) Designed to mitigate the visual impacts of storage areas;*
*(e) Provide adequate storage for mixed solid waste and source separated recyclables; and*

*(f) Improve the efficiency of collection of mixed solid waste and source separated recyclables.*

**Finding:** The proposed development is an integrated operations center, a commercial development. This chapter applies.

**Section 73D.020 - Design Methods.**

*An applicant required to provide mixed solid waste and source separated recyclables storage areas must comply with one of following methods:*
*(1) The minimum standards method in TDC 73D.030;*
*(2) The waste assessment method in TDC 73D.040;*
*(3) The comprehensive recycling plan method in TDC 73D.050; or*
*(4) The franchised hauler review method in TDC 73D.060.*

**Finding**: As shown on the included Site Plan, the development proposes a solid waste and recyclables storage facility on the east side of the main building. The size and location of the waste storage area has been coordinated with Republic Services, the waste-hauler for this location of the city, and follows the Minimum Standards method in subsection (1).

**Section 73D.030 – Minimum Standards Method.**

*This method specifies a minimum storage area requirement based on the size and general use category of the new or expanded development. This method is most appropriate when specific use of a new or expanded development is not known. It provides specific dimensional standards for the minimum size of storage areas by general use category.*
*(1) The size and location of the storage area(s) must be indicated on the site plan. Requirements are based on an assumed storage area height of four feet for mixed solid waste and source separated recyclables. Vertical storage higher than four feet, but no higher than 7 feet may be used to accommodate the same volume of storage in a reduced floor space (potential reduction of 43 percent of specific requirements). Where vertical or stacked storage is proposed, submitted plans must include drawings to illustrate the layout of the storage area and dimensions for containers.*

**Finding:** The size and location of the waste storage areas are indicated on AR-A101, Level 1 Plan, and AR-A120, Site Structures. In summary, there are two locations for waste storage: an interior waste room, directly accessible from the exterior of the building, and an exterior waste storage area. Haulers will provide service for the exterior waste storage area, while the internal waste storage area will serve employees. The exterior waste storage area will hold a rolling compost bin and two 8-yard waste bins dedicated for landfill and recycling. The exterior storage area is a three-sided enclosure with an 18-foot wide, clear-opening access and no center post. No vertical or stacked storage is proposed.

*(2) The storage area requirement is based on uses. If a building has more than one use and that use occupies 20 percent or less of the gross leasable area (GLA) of the building, the GLA occupied by that use must be counted toward the floor area of the predominant use(s). If a building has more than one use and that use occupies more than 20 percent of the GLA of the building, then the storage area requirement for the whole building must be the sum of the area of each use. Minimum storage area requirements by use is as follows:*
*(a) Common wall residential 5-10 units must provide 50 square feet.*
*(b) Common wall residential greater than 10 units must provide 50 square feet plus an (additional 5 square feet per unit above 10.*
*(c) Commercial, industrial, and institutional developments must provide a minimum storage area of 10 square feet plus:*
*(i) Office - 4 square feet/1000 square feet gross leasable area (GLA);*
*(ii) Retail - 10 square feet/1000 square feet GLA;*
*(iii) Wholesale/ Warehouse/ Manufacturing - 6 square feet/1000 square feet GLA;*
*(iv) Educational and Institutional - 4 square feet/1000 square feet GLA; and*
*(v) All other uses- 4 square feet/1000 square feet GLA.*
*(3) Mixed solid waste and source separated recyclables storage areas for multiple tenants on a single site may be combined and shared.*

**Finding:** The proposed IOC contains 100,000 square feet of gross leasable area. As a commercial development with 100,000 square feet of GLA, the minimum storage area requirement is 410 sq. ft. The waste storage area inside the building is 200 sq. ft.; the waste storage area outside the building is 260 sq. ft. Therefore, 460 sq. ft. of waste storage area is proposed in total, which exceeds the minimum standard of 410 sq. ft.

**Section 73D.070 – Location, Design and Access Standards.**

*The following location, design, and access standards are applicable to all storage areas:*
*(1) Location Standards.*
*(a) The storage area for source separated recyclables may be collocated with the storage area for mixed solid waste.*
*(b) Storage area space requirements can be satisfied with a single location or multiple locations, and can combine both interior and exterior locations.*
*(c) Exterior storage areas must:*
*(i) Be located in central and visible locations on the site to enhance security for users;*
*(ii) Be located in a parking area; and*
*(iii) Not be located within a required front yard setback or in a yard adjacent to a public or private street.*

**Finding**: The proposed development plans for two mixed solid waste storage areas, one interior and one exterior. The exterior waste storage area is located adjacent to the parking area, east of the IOC building. The waste storage area is visible on the site for users and waste haulers. As shown on the Site Plan, the interior waste storage area is

planned directly inside the building with direct pedestrian access to the exterior storage area. The exterior storage area is set close to the IOC and not located within yard setbacks or ROWs.

*(2) Design Standards.*
*(a) The dimensions of the storage area must accommodate containers consistent with current methods of local collection at time of construction or alteration.*
*(b) Indoor and outdoor storage areas must comply with Oregon Building and Fire Code requirements.*
*(c) Exterior storage areas must be enclosed by a sight obscuring fence or wall at least 6 feet in height.*
*(d) Evergreen plants must be placed around the enclosure walls, excluding the gate or entrance openings for common wall, commercial, and institutional developments.*

**Finding**: The exterior waste storage area will accommodate two 8-yard waste bins, and it has been designed to Oregon's current Building and Fire Code requirements. Both the Tualatin Fire Department and Republic Services, the site's waste-hauler, have been consulted to ensure ease of access and compliance. The exterior waste storage area will have a 6-foot high concrete wall with no overhead canopy. Evergreen plants are planned along the north, west, and south sides of the exterior waste storage area.

*(e) Gate openings for haulers must be a minimum of 10 feet wide and must be capable of being secured in a closed and open position.*

**Finding:** The exterior waste storage area provides 120-degree swinging gates with an 18-foot clear opening. These gates will have bolt holes at both the open and closed positions. This configuration has been approved by the site's waste-hauler, Republic Services.

*(f) Horizontal clearance must be a minimum of 10 feet and a vertical clearance of 8 feet is required if the storage area is covered.*
*(g) A separate pedestrian access must also be provided in common wall, commercial, and institutional developments.*

**Finding:** The waste storage area will not be covered, and the development is not a common wall commercial development. This standard does not apply.

*(h) Exterior storage areas must have either a concrete or asphalt floor surface.*
*(i) Storage areas and containers must be clearly labeled to indicate the type of material accepted.*

**Finding:** The exterior waste storage area will be based on a concrete pad, and all waste storage containers will be clearly labeled to indicate landfill, recycling, or compost collection.

*(3) Access Standards.*
*(a) Storage areas must be accessible to users at convenient times of the day, and to hauler personnel on the day and approximate time they are scheduled to provide hauler service.*
*(b) Storage areas must be designed to be easily accessible to hauler trucks and equipment, considering paving, grade, gate clearance and vehicle access.*
*(c) Storage areas must be accessible to hauler trucks without requiring backing out of a driveway onto a public street. If only a single access point is available to the storage area, adequate turning radius must be provided to allow hauler trucks to safely exit the site in a forward motion.*
*(d) Storage areas must located so that pedestrian and vehicular traffic movement are not obstructed on site or on public streets adjacent to the site.*
*(e) The following is an exception to the access standard:*
*(i) Access may be limited for security reasons*

**Finding:** For ease of user access and for site security reasons, the exterior waste storage area will be near the east wall of the IOC, adjacent to the parking area, and within the security fence perimeter. Republic Services will have access to the enclosure through the main site entrance from SW Blake Street. The 26-foot drive aisles and straight truck approach into the exterior waste storage area ensures that convenient access for haulers. Republic Services has reviewed the proposed waste storage area orientation and has confirmed access is acceptable. The waste storage area also includes a human door for pedestrian access. The door is placed on the south wall of the waste storage area. A paved pedestrian path connects the interior waste room with the exterior waste area. The location choice, door placements, and pedestrian connection create convenient user access.

The design of the storage area allows haulers avoid any backward movements during circulation. The waste-haulers can drive directly into the enclosure from the east, and then turn left to exit south through the parking lot.

Sidewalks do not cross in front of the waste storage area. Pedestrian circulation is directed to the west and south, away from crossing between the waste storage area and waste-hauler access in the parking lot. Locating the waste storage area near the east wall of the IOC building reduces the possibility of either pedestrian or traffic obstruction. There are two north-south drive aisles in the parking lot that allow traffic an exit route when waste-haulers are servicing the site. Additionally, by maintaining the waste storage area on site, adjacent to the parking lot, within the security perimeter fencing, public ROW is not obstructed.

# Chapter 73F – Wireless Communications Facilities

**Section 73F.010 – Purpose and Objectives.**

*(1) Purpose. The purpose of wireless communication facility design objectives and standards is to implement the purpose and objectives of TDC 73A.010 by focusing on the placement, design and relationship of proposed site elements such as support structure location, lighting, screening, fencing and landscaping.*
*(2) Objectives. All wireless communication facilities and attached facilities should strive to meet the following objectives to the maximum extent practicable. Architects and developers should consider these elements in designing new development. In the case of conflicts between objectives, the proposal must provide a desirable balance between the objectives. Site elements must be placed and designed, to the maximum extent practicable, to: Be aesthetically and architecturally designed and located to be compatible with the surrounding environment and analyze co-location before seeking new sites.*
*(a) Select colors in consideration of lighting conditions and the context under which the structure is viewed, the ability of the material to absorb, reflect or transmit light and the color's functional role, e.g., aesthetic reasons.*

**Finding**: The proposed wireless communication tower will be a neutral, non-reflective, gray color. Based on PGE's experience with similar facilities in other locations, this color has been found to blend in to the background conditions as much as possible, given the constant changes in sky color and different background contexts.

*(b) Select platform and antenna designs which minimize their size and visual appearance to surrounding development.*

**Finding**: The tower platform is a concrete pad that will support the proposed support structure. The base of the tower and its platform will be entirely concealed from neighboring properties by a fence and the surrounding tree grove. As much as possible, as described in this document, the design and locational choices for the WCF minimize the size and visual appearance of the tower. Surrounding development that could be affected is largely industrial in nature.

*(c) Provide a composition of structural material elements which is cohesive and responds to use needs, site context, land form, a sense of place and identity, safety, and climatic factors.*

**Finding**: The proposed WCF is a self-supporting, lattice-type tower, composed of sturdy, lightweight steel elements, on a concrete pad base. Microwave radio dish antennae are attached to the upper part of the tower. The composition of the tower is industry-standard for it to carry out its purpose and be operational. At the same time, the structure is placed in a grove of tall trees and is therefore hidden as much as possible within its setting. A monopole tower of this height would need to be so thick that it would be much more visually obtrusive. The lattice-type metal tower is more visually transparent. This area is also an industrial corner of the city where major communications infrastructure is not out of place.

*(d) Select materials which contribute to the project's form and function, as well as to the surrounding environment.*

**Finding**: The communication tower will be a four-legged, self-supporting, lattice-style metal structure with attached microwave dish antennae. A small utility shack will be located at the base of the tower, and the footprint of the entire communications facility will be enclosed within a security fence. The materials of which the tower is made are industry-standard for a tower of this height and to achieve its function

*(e) Minimize disruption of natural site features such as topography, trees, and water features.*
*(f) Take into consideration the existing topography of the site and surrounding vicinity.*
*(g) Reduce the visual impact of the support structure by locating within stands of existing vegetation and trees.*
*(h) Screen elements such as mechanical and electrical equipment from view.*

**Finding**: The proposed tower is located on a small rise in this area of the site, to achieve additional natural height without building it, and among a grove of existing mature trees. In this way, the siting of the tower minimizes disruption and takes into consideration natural topography.

By tucking the tower into a stand of existing trees, the base of the facility will be screened from the right of way and other surrounding properties. (This will be made even more effective if the proposed variance for fence setbacks from rights of way is approved.) The base of the WCF includes a small equipment shack that will be concealed by a sight-obscuring safety fence. In addition, natural topography and existing vegetation will largely obscure these elements of the WCF from view.

*(i) Locate a wireless communication facility attached to existing rooftop mechanical equipment before placement on the exterior wall of a building.*
*(j) Co-locate wireless communication facility or attached facility.*

**Finding**: The proposed WCF is required, for functional reasons, to be exclusively dedicated for PGE use and 140 feet tall. The rationale for the height of the structure is so that it can communicate directly with other PGE structures in the region. The type of signal broadcast and received by the WCP needs a direct line of sight to maintain this constant connection. As such, it cannot be co-located on another structure or attached to the roof of the new operations center building.

*(k) Construct wireless communication support structures at the minimum height necessary to serve the operational requirements of the system.*

**Finding**: The proposed tower is 140 feet tall, which is the minimum height necessary to create a line of sight to other PGE communications towers, which is necessary to meet

the operational requirements of the system. The attached radio frequency report explains the technical details and supports the height variance.

*(l) Separate wireless communication support structures from each other.*

**Finding**: The proposed communication support structure is 4,600 feet from the nearest WCF in Tualatin. That tower is noted on Figure 2 along with the closest WCF overall, which is outside city limits in Sherwood. As noted, the proposed communication facility must be exclusive to PGE for security purposes and cannot co-locate.

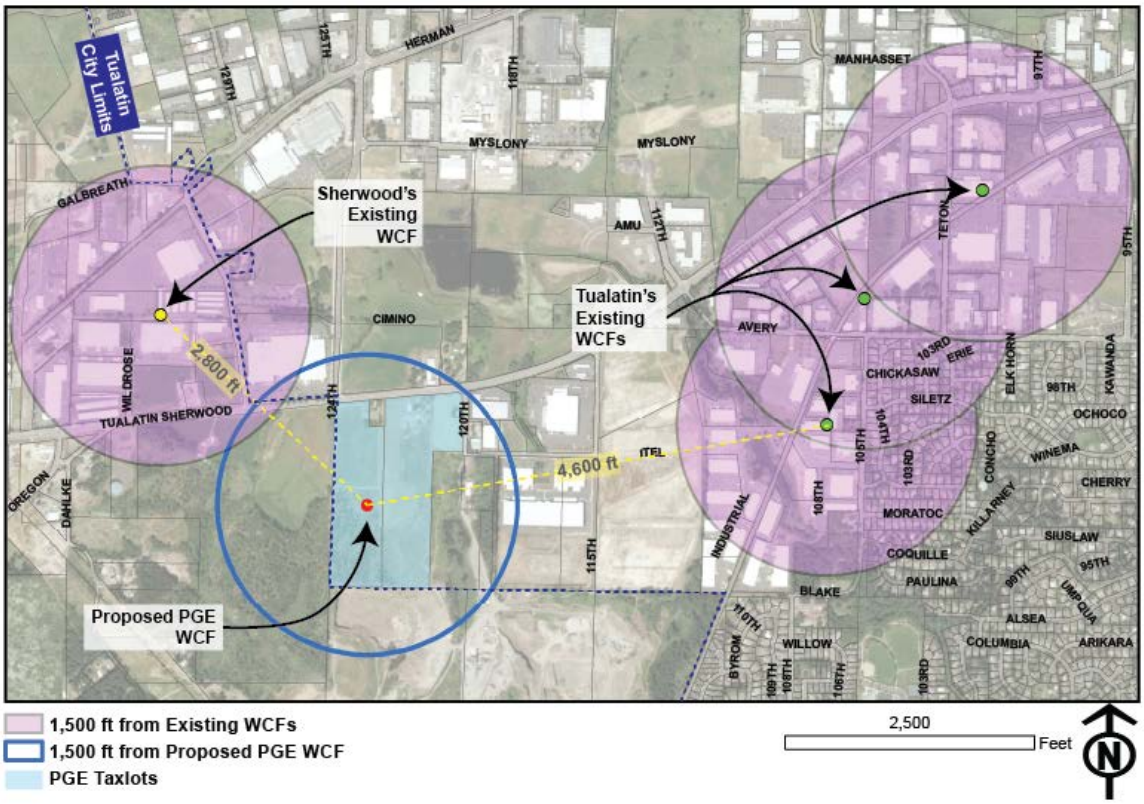



Figure 2. Nearest WCFs from proposed tower

## Section 73F.020 - Maximum Height.

*The maximum height for wireless communication facilities, support structures, and antennas is as follows:*

| *PLANNING DISTRICT* | *MAXIMUM STRUCTURE HEIGHT* |
|---|---|
| *(18) Manufacturing Business Park (MBP)* | • *65 feet*<br>• *85 feet if all yards adjacent to the structure are not less than a distance equal to one and one-half times the height of the structure*<br>• *28 feet if a property line, street, or alley separates MBP land from land in a residential district* |

**Finding**: The proposed tower will be 140 feet tall. As described, the reason for this height is that the antenna must communicate directly and without interruption with other PGE communication facilities in the region. The type of signal broadcast and received by the WCF needs a direct line of sight to maintain this constant connection. Because the operational requirements of the tower require that it be taller than the maximum height allowed in the district, a variance is requested in findings below.

**Section 73F.030 - Site Design Standards.**

*(1) All Wireless Communication Facilities must comply with the following minimum design standards:*
*(a) A wireless communication facility attached must not be attached to buildings which are designed solely for single family residential use;*

**Finding**: The proposed WCF is not attached to any building. This standard does not apply.

*(b) Mechanical and electrical equipment and the bottom six feet of the support structure for a wireless communication facility must be screened from the public right-of-way and abutting property by the use of a minimum six foot tall security fence or wall consisting of chain link fencing with vinyl slats, solid wood fencing, concrete masonry unit block, or brick;*

**Finding**: The base of the tower, including the mechanical and electrical equipment next to the antenna support structure, will be within a ten-foot tall, sight-obscuring safety fence. This fence will be chain link with vinyl privacy slats. In addition, the structure will be screened from any adjacent property by natural vegetation (*i.e.*, mature trees), proposed vegetation, distance, and a security perimeter fence.

*(c) Equipment shelters, buildings or cabinets to house radio electronics equipment must be concealed, camouflaged, screened by vegetative, or placed underground.*

**Finding**: The proposed WCF has a small shed for electronic equipment associated with the tower and antenna, as shown on project plans. This building will be concealed by the privacy fence, existing vegetation, and the site perimeter security fence.

*(d) A wireless communication facility must utilize existing site conditions such as surrounding vegetation and trees;*

**Finding**: One of the main locational criteria for siting the proposed WCF, in addition to getting the required minimum height to maintain communication with other PGE facilities, was to minimize its impact on the landscape and on surrounding properties. Fortunately, one of the high elevation points on the site is within a small clearing inside a larger grove of mature trees on the property's west side. This has enabled the WCF to utilize existing site conditions, specifically the surrounding vegetation and trees.

*(e) A wireless communication facility support structure must be constructed to the minimum height necessary to serve the operational requirements of the facility;*

**Finding**: The proposed support structure for the WCF is the minimum height necessary to serve the operational requirements of the facility. The radio frequency report included with the application materials explains the need for line-of-sight capability to other PGE microwave towers in the region. A shorter structure would simply not allow the necessary always-on microwave radio connection to other facilities, which is the baseline operational requirement. In order to have this functionality, it was determined that the support structure for the microwave radio antennae needed to be 140 feet tall.

*(f) A wireless communication facility must be designed to allow co-location of facilities;*

**Finding**: In theory, the support structure for the PGE communications antennae is designed to allow co-location. However, in practice, the tower is inside a secure perimeter fence for protection of critical infrastructure. For this reason, other private companies would be permitted access to the tower.

*(g) Wireless communication support structure towers must be used in all zones, except when co-locating on an existing structure.*

**Finding:** The proposal is for a self-supporting communications tower.

*(h) Antennas and platforms must be designed to minimize their size and appearance to surrounding development;*

**Finding:** One of the main locational criteria for siting the proposed WCF, in addition to getting the required minimum height to maintain communication with other PGE facilities, was to minimize its visual impact on surrounding properties. The primary

method for doing so is siting, i.e., placing the tower within a small clearing inside a larger grove of mature trees. This also makes the platform effectively invisible to any surrounding property. The dish antennae are relatively small and will only be visible from a great distance, as the nearest developed property is about 750 horizontal feet away and the antenna are more than 100 feet in the air. In these ways, the antennae and platform are not visually impactful to neighbors.

*(i) Obsolete or unused wireless communication support structures and associated equipment and antennas must be removed within 12 months of cessation of operations at a site;*

**Finding:** The support structure will be removed if the operations at the site ever cease, which is not anticipated and would only be in the far distant future.

*(j) No new wireless communication support structure is permitted unless the applicant submits a co-location report showing whether or not any existing tower or support structure within one-half mile of the proposed site can accommodate the applicant's proposed antennae. The report must address the following:*
*(i) Do existing towers or support structures, or approved but not yet constructed towers or support structures, located within the geographic area meet the applicant engineering requirements;*
*(ii) Are existing towers or support structures of sufficient height to meet the applicant's engineering requirements;*
*(iii) Do existing towers or support structures have sufficient structural strength to support the applicants proposed antennae and related equipment;*
*(iv) Would the applicant's proposed antennae cause electromagnetic interference with the antennae on the existing tower or support structure, or would existing antennae cause interference with the applicant's proposed antennae; and*
*(v) Are there other limiting factors that render existing towers and support structures unsuitable or unavailable.*

**Finding**: Figure 2 shows the closest permitted WCF to the proposed tower, including a 1,500 foot ring, which is addressed in subsection (k) below. The other tower is 2,800 feet from the proposed tower site, in Sherwood. The closest tower that is inside Tualatin city limits, according to city maps, is 4,700 feet away, to the east, in an industrial area off SW 105th Avenue.

Because there are no towers within the stated distance where PGE could co-locate its tower, the listed elements of a co-location report do not apply. In any case, as previously explained, the required height and strict security needs of the proposed tower make co-locating on other structures impossible consistent with CIP-14 requirements.

*(k) The minimum distance between wireless communication support structure towers is 1,500 feet. Separation must be measured by following a straight line from one wireless communication*

*support structure tower to the next. For purposes of this section, a wireless communication support structure tower includes wireless communication support structure tower for which the City has issued a development permit, or for which an application has been filed and not denied.*

**Finding**: The next closest WCF in Tualatin is 2,800 feet from the proposed tower, in Sherwood. This exceeds the minimum 1,500 foot distance required by this standard. The closest tower inside Tualatin city limits is even farther, 4,700 feet to the east.

*(2) In addition to complying with subsection (1), all Wireless Communication Facilities Attached must comply with the following:*
*(a) Wireless communication facility attached antennas must use existing rooftop mechanical equipment, and only if not practicable be placed on the exterior wall of a building; and*
*(b) Wireless communication facility attached antennas must be painted to match the color of the mechanical screen wall or building to which it is attached.*

**Finding**: The proposed facility is a stand-alone communications tower, and not attached to a building. Consequently, it is not a "Wireless Communication Facilities Attached," and this standard does not apply.

**Section 73F.040 - Setback Requirements.**

*Setbacks for all Wireless Communication Facilities are determined through the Architectural Review process, and must be consistent with the following:*
*(1) The minimum setback must be 5 feet, except as otherwise specified in (2), below;*
*(2) The minimum setback from an RL zone or from an RML zone with an approved small lot subdivision must be determined as follows:[…]*
*(3) In making a determination of compliance with the setback requirements, the City Manager must consider the following factors:*
*(a) If the abutting property is in the Low Density Residential (RL) Zone or in the Medium-Low Density Residential (RML) Zone with an approved small lot subdivision, and if natural vegetation, such as evergreen trees, does not exist to act as a screen, then a greater setback than the minimum required may be appropriate. If such natural vegetation exists, then the minimum required setback may be appropriate;*
*(b) If the abutting property is in the Low Density Residential (RL) Zone or in the Medium-Low Density Residential (RML) Zone with an approved small lot subdivision, and it is vacant or its use is a single family dwelling, then a greater setback than the minimum required may be appropriate. If the use is not a single family dwelling, then the minimum required setback may be appropriate; and*
*(c) If the abutting property is in the Low Residential Density (RL) Zone or in the Medium-Low Density Residential (RML) Zone with an approved small lot subdivision, and it is vacant or its use is a single family dwelling and it is at a lower elevation than the subject property, then a greater setback than the minimum required may be appropriate.*

**Finding**: The proposed tower is set back 160 feet from the nearest property line, which will be the edge of the SW Blake Street ROW. It will be set back 260 feet from the edge

of the SW 124th Avenue ROW. These setbacks far exceed the applicable five foot minimum listed in subsection (1). The other subsections do not apply, because the property does not abut any land that is zoned RL or RML.

*Section 73F.050. Variances. Variances to the provisions of this Chapter are as provided in TDC 33.120.*

**Finding**: No variances are required to this chapter. Variances to two base zone development standards, for tower height and a fence setback, are requested below.

## Architectural Review Summary

The proposed building and site design creates a secure and reliable facility that enables current operations and supports a modern, collaborative, and flexible work environment. The unique security needs of the facility are accommodated, and the site elements include all necessary operational functions into a fully integrated operations center. The architectural, landscaping, and site orientation choices provide a low-profile, visually appealing presence along abutting rights of way and as viewed from surrounding properties. Overall, the site and its building elements are functional, safe, and attractive.

111 SW Fifth Avenue, Suite 2600 Portland, OR 97204 503.542.3860 **kpff.com**

April 17, 2019
revised May x, xxxx

City of Tualatin
**Attn: Engineering Department**
18880 SW Martinazzi Avenue
Tualatin, OR 97062-7092

RE: PGE Integrated Operations Center
Public Facilities Narrative

Below are our responses to City of Tualatin Municipal Code Title 03: Utilities and Water Quality.

**CHAPTER 03-02 Sewer Regulations; Rates**
**Section 3-2-020 Application, Permit and Inspection Procedure**
*(1) No person shall connect to any part of the sanitary sewer system without first making an application and securing a permit from the City for such connection, nor may any person substantially increase the flow, or alter the character of sewage, without first obtaining an additional permit and paying such charges therefore as may be fixed by the City, including such charges as inspection charges, connection charges and monthly service charges.*

*(2) Upon approval of the application and payment of all charges, the City will issue a sewer connection permit for the premises covered in the application. The application and permit shall be on forms provided by the City.*

*(3) After approval of the application, evidenced by the issuance of a permit, no change shall be made in the location of the sewer, the grade, materials, or other details from those described in the permit or as shown on the plans and specifications for which the permit was issued except with written permission from the City. The applicant's signature on an application for any permit as set forth shall constitute an agreement to comply with all of the provisions, terms and requirements of this and other City of Tualatin ordinances, rules and regulations, laws of the State of Oregon, and with the plans and specifications filed with the application, if any, together with such corrections or modifications as may be made or permitted by the City, if any. Such agreement shall be binding upon the applicant and may be altered only by the City upon the written request for the alteration from the applicant.*

*(4) It shall be the duty of the person doing the work authorized by permit to notify the City that said work is ready for inspection.*

*(5) All sewer construction work shall be inspected by an inspector acting for the City to insure compliance with all requirements of the City. No sewer shall be covered at any point until it has been inspected and passed for acceptance. No sewer shall be connected to the City's public sewer until the work covered by the permit has been completed, inspected, and approved by the inspector. All sewers shall be tested for leakage in the presence of the inspector and shall be cleaned of all debris accumulated from construction operations.*

*(6) When any work has been inspected and the test results are not satisfactory, a written notice to that effect shall be given instructing the owner of the premises, or the agent of such owner, to repair the sewer or other work authorized by the permit in accordance with the ordinances, rules and regulations of the City.*

*(7) All costs and expenses incident to the installation and connection of any sewer or other work for which a permit has been issued shall be borne by the owner. The owner shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the work.*

RESPONSE: The applicant acknowledges and will comply the application, permit and inspection procedures for the construction and connection of sanitary sewers.

**Section 3-2-030 Material and Manner of Construction**
*(1) All building sewers, side sewers and connections to the main sewer shall be so constructed as to conform to the requirements of the Oregon State Plumbing Laws and rules and regulations and specifications for sewerage construction of the City.*

*(2) Old building sewers may be used in connection with new buildings only when they are found, upon examination and test by the City Inspector, to meet all requirements of the City.*

*(3) A public works permit must be secured from the City and other agency having jurisdiction by owners or contractors intending to excavate in a public street for the purpose of installing sewers or making sewer connections.*

*(4) The City and its officers, agents or employees shall not be answerable for any liability or injury or death to any person or damage to any property arising during or growing out of the performance of any work by any such applicant. The applicant shall be answerable for and shall save the City and its officers, agents and employees harmless from any liability imposed by law upon the City or its officers, agents or employees, including all costs, expenses, fees and interest incurred in defending same.*

RESPONSE: The applicant acknowledges and will comply the material and manner of construction of sanitary sewers. The applicant does not propose any connection to old building sewers.

**Section 3-2-060 Use of Public Sewer Required**
*(1) No person shall discharge to a natural outlet within the City of Tualatin, or in an area under the jurisdiction of the City, any sewage or polluted waters, except where suitable treatment has been provided in accordance with this ordinance.*

*(2) Except as provided in this chapter, no person shall construct or maintain a privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of sewage within the corporate limits of the City of Tualatin, or in any area under the jurisdiction of the City.*

*(3) The owner of all buildings situated within the City and abutting on a street, sewer easement, alley or right-of-way in which there is located a public sanitary sewer of the City is required at his or her expense*

*to connect such building directly with the proper public sewer, either by gravity or with approved pumping facilities, in accordance with this ordinance, within 90 days after the date of official notice to do so; provided that the public sewer is available to or on the property and/or at a property line of the property and the structures or buildings are within 300 feet of the public sewer.*

*(a) In the event that, during the period of 90 days, the owner files written objections with the City Recorder against being required to connect to the public sewer, the City shall not enforce this subsection upon the owner until the Council shall have, at a meeting, heard the objections of the owner and rendered its decision. The meeting of the Council at which the objections are heard shall be held not less than ten (10) days or more than 30 days from and after the date of the filing of the objections with the City Recorder. Not less than seven days prior to the date set by the Council for the meeting, the City shall give due notice of the date set to the owner. The decision of the Council shall be final, and no appeal shall be taken by the owner except as is provided by law.*

*(b) In its consideration of filed written objections, the City Council may defer the required connection to the public sewer in the following cases:*

*(i) Where the sewer line which could serve the owner's property is (a) extended by a person other than the owner to benefit property other than the owner's property; and (b) the owner's pro rata share of the cost of construction of the sewer line extension is not payable under the provisions of the Bancroft Bonding Act (ORS Chapter 223), then the required sewer connection may be deferred until declaration by the City Council of a health hazard resulting from nonconnection, or the termination date of a reimbursement agreement between the City and the person making the sewer line extension, whichever event first occurs.*

*(ii) In those cases where a structure or structures are located and used upon real property in such a manner that the use is a non-conforming use under the City of Tualatin zoning ordinance, then connection to the public sewer may be deferred for a period of two years after official notice to connect, or declaration by the City Council of a health hazard resulting from nonconnection, or a change in the use or occupancy of the premises, whichever event first occurs.*

*(iii) A connection to the public sewer may be deferred until construction of a sanitary sewer improvement in the vicinity of the owner's property in such cases where the Public Works Director shall determine in writing that the owner's property will be better served by the sewer line to be constructed.*

*(4) In the event the owner does not connect to a public sewer in accordance with subsection (3) of this section, the Council may order the connection and assess the cost thereof in accordance with TMC 6-5-200 and 6-5-210.*

RESPONSE: The applicant proposes to discharge all sewer and/or polluted waters to the City of Tualatin municipal sewer system.

An offline sewage holding tank is proposed for emergency use. The tank will only be used if the proposed connection to the municipal system is compromised due to a natural disaster.

Any septic system found and associated with the structures to be demolished on the site will be removed in accordance with DEQ requirements.

**Section 3-2-070 Private Sewage Disposal**
*(1) Where a public sanitary sewer is not available, the building sewer shall be connected to a private sewage disposal system complying with the requirements of the Oregon Department of Environmental Quality, the Oregon State Health Division, Washington County Department of Public Health, and the Plumbing Code of the State of Oregon.*

*(2) At such time as a public sewer becomes available to a property served by a private sewage disposal system, a direct connection shall be made to the public sewer in compliance with this ordinance; and any septic tanks, cesspools, and similar private sewage disposal facilities shall be abandoned and filled with suitable materials, except as provided below, or as the City Council shall otherwise permit. Where existing septic tank facilities shall be maintained in use and, when so ordered by the City under TMC 3-2-060, approved, pumping facilities shall be installed to pump the septic tank effluent into the available sanitary sewer system.*

*(3) The provisions of this article shall be in addition to and not in derogation of the requirements of general law.*

RESPONSE: As noted in the response above the applicant proposes to connect to the City of Tualatin municipal sewer system.

In the event of a natural disaster which compromises the municipal sewer system the sewage holding tank will be used. The sewage holding tank would be managed by a sewage disposal service until the municipal service could be restored.

**Section 3-2-080 Sewer Contractor Insurance and Bond**
*(1) No person shall make connections of private sewers to the sanitary sewer system of the City on behalf of any owner or owners of property within the City without first filing with the Public Works Director a certificate of insurance evidencing coverage for public liability in the amount of $50,000.00 for injury or death to one person and $100,000.00 for injury or death to two or more persons arising out of a single occurrence, and $50,000.00 for property damage resulting from any single occurrence for any claims, demands, suits, or actions for property damage, personal injury or death resulting from any activities of such persons, firms or corporations and their officers, agents, employees, and contractors. The certificate of insurance shall be approved by the Public Works Director before any work is commenced by the person.*

*(2) In addition to the coverage for public liability, and prior to the commencement of any work, the person shall post a corporate surety bond issued by a company authorized to sell such bonds in the State of Oregon, with the Public Works Director. The financial limits of the bond shall be determined by the Public Works Director. The bond shall guarantee all work performed by said person, within the 12-month period next following the posting of the bond, for the benefit of the City, against defects in materials, workmanship, and labor for a period of one year after completion of the work. The person shall post such a bond for each 12-month period within which any such work shall be performed within the City. The completion date shall be determined in writing by the Public Works Director.*

RESPONSE: The applicant acknowledges and will comply the contractor insurance and bond requirements of the City of Tualatin.

**Section 3-2-160 Construction Standards**
*All sewer line construction and installation of services and equipment shall be in conformance with the City of Tualatin Public Works Construction Code. In addition, whenever a property owner extends a sewer line, the extension shall be carried to the opposite property line or to such other point as determined by the Public Works Director.*

RESPONSE: All sewer line construction and installation shall be completed in conformance with the City of Tualatin Public Works Construction Code.

The applicant anticipates the need to extend municipal sewer service to the site in SW Itel Street approximately 200 feet. Additional extension to opposite property lines is not anticipated.

**CHAPTER 03-03 Water Service**
**Section 3-3-040 Separate Services Required**
*(1) Except as authorized by the City Engineer, a separate service and meter to supply regular water service or fire protection service shall be required for each building, residential unit or structure served. For the purposes of this section, trailer parks and multi-family residences of more than four dwelling units shall constitute a single unit unless the City Engineer determines that separate services are required.*

*(2) For nonresidential uses, separate meters shall be provided for each structure. Separate meters shall also be provided to each buildable lot or parcel on which water service is or will be provided.*

RESPONSE: The applicant proposes a single structure. The applicant proposes running a private water line from the main structure to the guard booth. The guard booth is an auxiliary use to the main structure and therefore a separate water meter is not proposed.

**Section 3-3-100 Meters**
*(1) Meters up to and including two inches will be furnished by the City. Meters larger than two inches may be furnished by the customer upon approval of the Operations Director.*

*(2) All meters, including those for fire protection service, shall be located within the public right-of-way or within an access easement approved by the City Engineer.*

*(3) All meters, whether furnished by the City or a customer, shall be owned and maintained by the City.*

*(4) Meters will be sealed by the City at the time of installation, and no seal shall be altered or broken except by one of its authorized agents.*

*(5) If a change in size of a meter and service is required, the change shall be accomplished on the basis of a new installation.*

*(6) The customer is responsible for maintaining access to the meter free and clear of all shrubs, landscaping and other materials. Any obstructions may be trimmed or removed by the City and the cost therefore billed to the customer of the premises served.*

RESPONSE: The applicant is proposing a 4-inch domestic water meter to be located within the public right-of-way. The applicant is proposing the fire meters be located in fire service vaults within easements adjacent to the public right-of-way.

**Section 3-3-110 Construction Standards**
*All water line construction and installation of services and equipment shall be in conformance with the City of Tualatin Public Works Construction Code. In addition, whenever a property owner extends a water line, which upon completion, is intended to be dedicated to the City as part of the public water system, said extension shall be carried to the opposite property line or to such other point as determined by the City Engineer. Water line size shall be determined by the City Engineer in accordance with the City's Development Code or implementing ordinances and the Public Works Construction Code.*

RESPONSE: All water line construction and installation shall be completed in conformance with the City of Tualatin Public Works Construction Code.

In coordination with the Public Works Director an approximate 600 lineal foot 12-inch water main extension is required is SW 120$^{th}$ Avenue. The extension will proceed east down Itel approximately 175 lineal feet to create a 12-inch looped system.

**Section 3-3-120 Backflow Prevention Devices and Cross Connections**
*(1) Except where this ordinance provides more stringent requirements, the definitions, standards, requirements and regulations set forth in the Oregon Administrative Rules pertaining to public water supply systems and specifically OAR 333 Division 61 in effect on the date this ordinance becomes effective are hereby adopted and incorporated by reference.*

*(2) The owner of property to which City water is furnished for human consumption shall install in accordance with City standards an appropriate backflow prevention device on the premises where any of the following circumstances exist:*

*(a) Those circumstances identified in regulations adopted under subsection (1) of this section;*

*(b) Where there is a fire protection service, an irrigation service or a nonresidential service connection which is two inches (2") or larger in size;*

*(c) Where the potable water supply provided inside a structure is 32 feet or more, higher than the elevation of the water main at the point of service connection;*

*(3) All double check detector assemblies used for system containment on fire protection services shall be approved by the Oregon State Health Division. The meter register on all double check detector assemblies shall be indicated in cubic feet measurement.*

*(4) Except as otherwise provided in this subsection, all irrigation systems shall be installed with a double check valve assembly. Irrigation system backflow prevention device assemblies installed before the effective date of this ordinance, which were approved at the time they were installed but are not on the current list of approved device assemblies maintained by the Oregon State Health Division, shall be permitted to remain in service provided they are properly maintained, are commensurate with the degree of hazard, are tested at least annually, and perform satisfactorily. When devices of this type are moved, or require more than minimum maintenance, they shall be replaced by device assemblies which are on the Health Division list of approved device assemblies.*

*(5) Any installation, corrective measure, disconnection or other change to a backflow prevention device shall be performed at the sole expense of the owner of the property. All costs or expenses for any correction or modification to the City's system caused by or resulting from a cross connection shall be the responsibility of the owner and/or the user of the cross connection.*

*(6) Any backflow prevention device which is installed on property for the protection of the City water supply shall be tested at the time of installation and immediately after the device is moved or relocated. The property owner shall forward the results of such testing to the Operations Director within ten (10) days of the date of installation or relocation.*

RESPONSE: The applicant will comply with this ordinance and all requirements set forth in OAR 333 Division 61 concerning backflow protection and cross connections. Backflow devices are proposed for all water connections to the municipal systems.

**Section 3-3-120 Control Valves**
*The customer shall install a suitable valve, as close to the meter location as practical, the operation of which will control the entire water supply from the service. The operation by the customer of the curb stop in the meter box is prohibited.*

RESPONSE: The applicant acknowledges this requirement and will provide suitable valves as close to the meter location as practicable.

**CHAPTER 03-05 Soil Erosion, Surface Water Management, WQ Facilities, and Building and Sewers**
**EROSION CONTROL**
**Section 3-5-050 Erosion Control Permits**

*(1) Except as noted in subsection (3) of this section, no person shall cause any change to improved or unimproved real property that causes, will cause, or is likely to cause a temporary or permanent increase in the rate of soil erosion from the site without first obtaining a permit from the City and paying prescribed fees. Such changes to land shall include, but are not limited to, grading, excavating, filling, working of land, or stripping of soil or vegetation from land.*

*(2) No construction, land development, grading, excavation, fill, or the clearing of land is allowed until the City has issued an Erosion Control Permit covering such work, or the City has determined that no such permit is required. No public agency or body shall undertake any public works project without first obtaining from the City an Erosion Control Permit covering such work, or receiving a determination from the City that none is required.*

*(3) No Erosion Control Permit from City is required for the following:*

*(a) For work of a minor nature provided all the following criteria are met:*

*(A) The development does not require a development permit or approval from the City;*

*(B) No development activity or disturbance of land surface occurs within 100 feet of a sensitive area defined in TMC 3-5.270;*

*(C) The slope of the site is less than 20 percent;*

*(D) The work on the site involves the disturbance of less than 500 square feet of land surface; and*

*(E) The excavation, fill or combination thereof involves less than 20 cubic yards of material.*

*(b) Permits and approvals of land division, interior improvements to an existing structure, and other activities for which there is no physical disturbance to the surface of the land.*

*(c) A permit shall not be required for activities within the City which constitute accepted farming practices as defined in ORS 215.203, provided any erosion does not cause sedimentation in waters of the Tualatin River basin.*

*(4) An exception from the permit requirement shall not relieve the property or its owner from the prohibition of TMC 3-5.040.*

RESPONSE: The applicant acknowledges the need for an erosion control permit. No land disturbing activities will commence until the erosion control permit is issued.

**Section 3-5-060 Permit Process**

*(1) Applications for an Erosion Control Permit. Application for an Erosion Control Permit shall include an Erosion Control Plan which contains methods and interim facilities to be constructed or used concurrently and to be operated during construction to control erosion. The plan shall include either:*

*(a) A site specific plan outlining the protection techniques to control soil erosion and sediment transport from the site to less than one ton per acre per year as calculated using the Soil Conservation Service Universal Soil Loss Equation or other equivalent method approved by the City Engineer, or*

*(b) Techniques and methods contained and prescribed in the Soil Erosion Control Matrix and Methods, outlined in TMC 3-5.190 or the Erosion Control Plans - Technical Guidance Handbook, City of Portland and Unified Sewerage Agency, January, 1991.*

*(2) Site Plan. A site specific plan, pre-pared by an Oregon registered profession-al engineer, shall be required when the site meets any of the following criteria:*

*(a) greater than five acres;*

*(b) greater than one acre and has slopes greater than 20 percent;*

*(c) contains or is within 100 feet of a City-identified wetland or a waterway identified on FEMA floodplain maps; or*

*(d) greater than one acre and contains highly erodible soils.*

RESPONSE: The applicant acknowledges this requirement and will provide a site specific erosion control plan prepared by an Oregon registered professional engineer.

**ADDITIONAL SURFACE WATER MANAGEMENT STANDARDS**
**Section 3-5-200 Downstream Protection Requirement**
*Each new development is responsible for mitigating the impacts of that development upon the public storm water quantity system. The development may satisfy this requirement through the use of any of the following techniques, subject to the limitations and requirements in TMC 3-5-210:*

*(1) Construction of permanent on-site stormwater quantity detention facilities designed in accordance with this title;*

*(2) Enlargement of the downstream conveyance system in accordance with this title and the Public Works Construction Code;*

*(3) The payment of a Storm and Surface Water Management System Development Charge, which includes a water quantity component designated to meet these requirements.*

RESPONSE: The applicant acknowledges this requirement and will construct permanent on-site stormwater quantity detention facilities designed in accordance with this title and limiting offsite discharge of stormwater to pre-development rates.

**Section 3-5-210 Review of Downstream System**

*For new development other than the construction of a single family house or duplex, plans shall document review by the design engineer of the downstream capacity of any existing storm drainage facilities impacted by the proposed development. That review shall extend downstream to a point where the impacts to the water surface elevation from the development will be insignificant, or to a point where the conveyance system has adequate capacity, as determined by the City Engineer.*

*To determine the point at which the downstream impacts are insignificant or the drainage system has adequate capacity, the design engineer shall submit an analysis using the following guidelines:*

*(1) evaluate the downstream drainage system for at least ¼ mile;*

*(2) evaluate the downstream drainage system to a point at which the runoff from the development in a build out condition is less than 10 percent of the total runoff of the basin in its current development status. Developments in the basin that have been approved may be considered in place and their conditions of approval to exist if the work has started on those projects;*

*(3) evaluate the downstream drainage system throughout the following range of storms: 2, 5, 10, 25 year;*

*(4) The City Engineer may modify items 1, 2, 3 to require additional information to determine the impacts of the development or to delete the provision of unnecessary information.*

*If the increase in surface waters leaving a development will cause or contribute to damage from flooding, then the identified capacity deficiency shall be corrected prior to development or the development must construct onsite detention. To determine if the runoff from the development will cause or contribute to dam-age from flooding the City Engineer will consider the following factors:*

*(1) The potential for or extent of flooding or other adverse impacts from the run-off of the development on downstream properties;*

*(2) The potential for or extent of possibility of inverse condemnation claims;*

*(3) Incremental impacts of runoff from the subject and other developments in the basin; and*

*(4) Other factors that may be relevant to the particular situation.*

*The purpose of the City Engineer's review is to protect the City and its inhabitants from the impacts or damage caused by runoff from development while recognizing all appropriate limitations on exactions from the development.*

RESPONSE: The applicant acknowledges this requirement.

**Section 3-5-220 Criteria for Requiring On-Site Detention to be Constructed**
*The City shall determine whether the onsite facility shall be constructed. If the onsite facility is constructed, the development shall be eligible for a credit against Storm and Surface Water System Development Charges, as provided in City ordinance.*

*On-site facilities shall be constructed when any of the following conditions exist:*

*(1) There is an identified downstream deficiency, as defined in TMC 3-5-210, and detention rather than conveyance system enlargement is determined to be the more effective solution.*

*(2) There is an identified regional detention site within the boundary of the development.*

*(3) There is a site within the boundary of the development which would qualify as a regional detention site under criteria or capital plan adopted by the Unified Sewerage Agency.*

*(4) The site is located in the Hedges Creek Subbasin as identified in the Tualatin Drainage Plan and surface water runoff from the site flows directly or indirectly into the Wetland Protected Area (WPA) as defined in TDC 71.020. Properties located within the Wetland Protection District as described in TDC 71.010, or within the portion of the subbasin east of SW Tualatin Road are excepted from the on-site detention facility requirement.*

RESPONSE: The applicant acknowledges this requirement and that the site is located within the Hedges Creek Subbasin. Permanent on-site stormwater quantity detention facilities will be constructed.

**Section 3-5-230 On-Site Detention Design Criteria**
*(1) Unless designed to meet the requirements of an identified downstream deficiency as defined in TMC 3-5.210, stormwater quantity onsite detention facilities shall be designed to capture run-off so the run-off rates from the site after development do not exceed predevelopment conditions, based upon a 25-year, 24-hour return storm.*

*(2) When designed to meet the requirements of an identified downstream deficiency as defined in TMC 3-5.210, stormwater quantity on-site detention facilities shall be designed such that the peak runoff rates will not exceed predevelopment rates for the 2 through 100 year storms, as required by the determined downstream deficiency.*

*(3) Construction of on-site detention shall not be allowed as an option if such a detention facility would have an adverse effect upon receiving waters in the basin or subbasin in the event of flooding, or would increase the likelihood or severity of flooding problems downstream of the site.*

RESPONSE: The applicant acknowledges this requirement. Due to the uncertainties associated with the downstream system we are proposing to mitigate runoff rates to predevelopment rates for the 2 through 100 year storms. On-site detention will not have an adverse effect upon receiving waters in the

basin or subbasin in the event of flooding and will not increase the likelihood or severity of flooding problems downstream of the site.

**Section 3-5-280 Placement of Water Quality Facilities**
Title III specifies that certain properties shall install water quality facilities for the purpose of removing phosphorous. No such water quality facilities shall be constructed within the defined area of existing or created wetlands unless a mitigation action, approved by the City, is constructed to replace the area used for the water quality facility.

RESPONSE: The applicant acknowledges this requirement and no water quality facilities will be constructed in existing or created wetlands.

**PERMANENT ON-SITE WATER QUALITY FACILITIES**
**Section 3-5-330 Permit Required**
*Except as provided in TMC 3-5-310, no person shall cause any change to improved or unimproved real property that will, or is likely to, increase the rate or quantity of run-off or pollution from the site without first obtaining a permit from the City and following the conditions of the permit.*

RESPONSE: The applicant acknowledges this requirement and will obtain permits from the city before construction begins.

**Section 3-5-340 Facilities Required**
*For new development, subject to the exemptions of TMC 3-5-310, no permit for construction, or land development, or plat or site plan shall be approved unless the conditions of the plat, plan or permit approval require permanent stormwater quality control facilities in accordance with this Title III.*

RESPONSE: The proposed development is not subject to the exemptions of TMC 3-5-310 and therefore this section does not apply.

**Section 3-5-350 Phosphorous Removal Standards**
*The stormwater quality control facilities shall be designed to remove 65 percent of the phosphorous from the runoff from 100 percent of the newly constructed impervious surfaces. Impervious surfaces shall include pavement, buildings, public and private roadways, and all other surfaces with similar runoff characteristics*

RESPONSE: The applicant acknowledges this requirement and will provide stormwater quality control facilities designed to remove 65 percent of the phosphorous from 100 percent of the new constructed impervious area.

**Section 3-5-360 Design Storm**
*The stormwater quality control facilities shall be designed to meet the removal efficiency of TMC 3-5-350 for a mean summertime storm event totaling 0.36 inches of precipitation falling in four hours with an average return period of 96 hours.*

RESPONSE: The applicant acknowledges this requirement and will use the required storm event for design of stormwater quality facilities.

**Section 3-5-370 Design Requirements**
*The removal efficiency in TDC Chapter 35 specifies only the design requirements and are not intended as a basis for performance evaluation or compliance determination of the stormwater quality control facility installed or constructed pursuant to this Title III.*

RESPONSE: The applicant acknowledges this requirement.

**Section 3-5-380 Criteria for Granting Exemptions to Construction of On-Site Water Quality Faclities**
*On-site facilities shall be constructed as required by OAR 340-41-455, unless otherwise approved by the City on a case by case basis due to the size of the development, topography, or other factors causing the City to determine that the construction of onsite permanent stormwater treatment systems is impracticable or undesirable. Determinations by the City may be based upon, but not limited to, consideration of the following factors:*

*Site topography, geological stability, hazards to public safety, accessibility for maintenance, environmental impacts to sensitive areas, size of the site and development, existence of a more efficient and effective regional site within the basin capable of serving the site, and consistency with sub-basin master plan.*

*A regional public facility may be constructed to serve private non-residential development provided:*

*(1) The facility serves more than one lot; and*

*(2) All owners sign a stormwater facility agreement; and*

*(3) Treatment accommodates reasonable worst case impervious area for full build-out, stormwater equivalent to existing or proposed roof area is privately treated in LIDA facilities, and any detention occurs on each lot.*

RESPONSE: The applicant does not plan on seeking an exemption to construction of on-site water quality facilities and therefore this section does not apply.

**Section 3-5-390 Facility Permit Approval**
*A stormwater quality control facility permit shall be approved only if the following are met:*

*(1) The plat, site plan, or permit application includes plans and a certification prepared by an Oregon registered, professional engineer that the proposed stormwater quality control facilities have been designed in accordance with criteria expected to achieve removal efficiencies for total phosphorous required by this Title III. Clean Water Services Design and Construction Standards shall be used in preparing the plan for the water quality facility; and*

*(2) The plat, site plan, or permit application shall be consistent with the areas used to determine the removal required in TMC 3-5-350; and*

*(3) A financial assurance, or equivalent security acceptable to the City, is provided by the applicant which assures that the stormwater quality control facilities are constructed according to the plans established in the plat, site plan, or permit approval. The financial assurance may be combined with our financial assurance requirements imposed by the City; and*

*(4) A stormwater facility agreement identifies who will be responsible for assuring the long term compliance with the operation and maintenance plan.*

RESPONSE: The applicant acknowledges and will comply with these facilities permit approval requirements.

**Section 3-5-430 Facility Permit Approval**
*No water quality facilities shall be constructed within the defined area of existing or created wetlands unless a mitigation action is approved by the City, and is constructed to replace the area used for water quality.*

RESPONSE: The applicant acknowledges this requirement and no water quality facilities will be constructed in existing or created wetlands.

Below are our responses to City of Tualatin Development Code Chapter 74: Public Improvements Requirements.

**TDC CHAPTER 74: Public Improvement Requirements**
**Section 74.110 Phasing of Improvements.**
*The applicant may build the development in phases. If the development is to be phased the applicant must submit a phasing plan to the City Manager for approval with the development application. The timing and extent or scope of public improvements and the conditions of development must be determined by the City Council on subdivision applications and by the City Manager on other development applications.*

RESPONSE: The proposed development will be completed in a single phase with the following potential exception. The applicant is exploring the potential phasing of the half street improvements on SW 124th Avenue with Washington County.

Washington County has expressed interest in including the half street improvements on SW 124th in the SW Tualatin Sherwood Road widening project. The benefits of this are continuity of design and potential economic incentives available to the project. PGE would partner with Washington County on the costs associated with the widening. That project is scheduled for construction in 2024.

If a path forward is identified for this partnering PGE would require occupancy of the building prior to completion of the SW 124th half street improvements.

**Section 74.120 Public Improvements.**
*(1) Except as specially provided, all public improvements must be installed at the expense of the applicant. All public improvements installed by the applicant must be constructed and guaranteed as to workmanship and material as required by the Public Works Construction Code prior to acceptance by the City. Work must not be undertaken on any public improvement until after the construction plans have been approved by the City Manager and a Public Works Permit issued and the required fees paid.*

RESPONSE: The applicant anticipates that Public Improvements will be required. The improvements will be constructed in accordance with the Public Works Construction Code.

*(2) In accordance with the Tualatin Basin Program for fish and wildlife habitat the City intends to minimize or eliminate the negative impacts of public streets by modifying right-of-way widths and street improvements when appropriate. The City Manager is authorized to modify right-of-way widths and street improvements to address the negative impacts on fish and wildlife habitat.*

RESPONSE: The proposed project will not have a negative impact on fish and wildlife habitat.

**Section 74.130 Private Improvements.**
*All private improvements must be installed at the expense of the applicant. The property owner must retain maintenance responsibilities over all private improvements.*

RESPONSE: PGE will construct and maintain all private improvements.

**Section 74.140 Construction Timing.**
*(1) All the public improvements required under this chapter must be completed and accepted by the City prior to the issuance of a Certificate of Occupancy; or, for subdivision and partition applications, in accordance with the requirements of the Subdivision regulations.*

*(2) All private improvements required under this Chapter must be approved by the City prior to the issuance of a Certificate of Occupancy; or for subdivision and partition applications, in accordance with the requirements of the Subdivision regulations.*

RESPONSE: Public and private improvements will be completed prior to receiving a Certificate of Occupancy with the potential exception of the SW 124th Avenue half street improvements.

**Section 74.210 Minimum Street Right-of-Way Widths.**
*The width of streets in feet must not be less than the width required to accommodate a street improvement needed to mitigate the impact of a proposed development. In cases where a street is required to be improved according to the standards of the TDC, the width of the right-of-way must not be less than the minimums indicated in TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G.*

*(1) For subdivision and partition applications, wherever existing or future streets adjacent…*

RESPONSE: The proposed development is not a subdivision or partition and therefore this section does not apply. The same holds true for all requirements "For subdivision and partition applications" in the code.

*(2) For development applications other than subdivisions and partitions, wherever existing or future streets adjacent to property proposed for development are of inadequate right-of-way width, the additional right-of-way necessary to comply with TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G of the Tualatin Community Plan must be dedicated to the City for use by the public prior to issuance of any building permit for the proposed development. This right-of-way dedication must be for the full width of the property abutting the roadway and, if required by the City Manager, additional dedications must be provided for slope and utility easements if deemed necessary.*

RESPONSE: The proposed development will dedicate right-of-way to the City for existing and future streets. SW 120th Avenue is an existing street adjacent to the property. SW 120th Avenue is identified as a Commercial Industrial Connector in the TSP. The TSP identifies the right-of-way width for Commercial/Industrial Connectors as 64 feet. The site's existing property line on SW 120th is 30 feet from centerline on the north end of the site and jogs to 20 feet from centerline on the south side of the site. We would anticipate a dedication requirement to provide a new property line 30 feet from centerline along the Site's SW 120th northerly frontage to match the existing right of way width on the southerly frontage.

Additional dedications will be provided on SW 124th Avenue and Tualatin-Sherwood Road to Washington County.

*(3) For development applications that will impact existing streets not adjacent to the applicant's property, and to construct necessary street improvements to mitigate those impacts would require additional right-of-way, the applicant must be responsible for obtaining the necessary right-of-way from the property owner. A right-of-way dedication deed form must be obtained from the City Manager and upon completion returned to the City Manager for acceptance by the City. On subdivision and partition plats the right-of-way dedication must be accepted by the City prior to acceptance of the final plat by the City. On other development applications the right-of-way dedication must be accepted by the City prior to issuance of building permits. The City may elect to exercise eminent domain and condemn necessary off-site right-of-way at the applicant's request and expense. The City Council must determine when condemnation proceedings are to be used.*

RESPONSE: The proposed development will not impact existing streets not adjacent to the site.

*(4) If the City Manager deems that it is impractical to acquire the additional right-of-way as required in subsections (1)-(3) of this section from both sides of the center-line in equal amounts, the City Manager may require that the right-of-way be dedicated in a manner that would result in unequal dedication from each side of the road. This requirement will also apply to slope and utility easements as discussed in TDC 74.320 and 74.330. The City Manager's recommendation must be presented to the City Council in the preliminary plat approval for subdivisions and partitions, and in the recommended decision on all other development applications, prior to finalization of the right-of-way dedication requirements.*

RESPONSE: The need to acquire additional right-of-way is not anticipated and therefore this section does not apply.

*(5) Whenever a proposed development is bisected by an existing or future road or street that is of inadequate right-of-way width according to TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G, additional right-of-way must be dedicated from both sides or from one side only as determined by the City Manager to bring the road right-of-way in compliance with this section.*

RESPONSE: SW Blake Street will bisect the site and is covered in our response to Item 6 below.

*(6) When a proposed development is adjacent to or bisected by a street proposed in TDC Chapter 11, Transportation Plan (Figure 11-3) and no street right-of-way exists at the time the development is proposed, the entire right-of-way as shown in TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G must be dedicated by the applicant. The dedication of right-of-way required in this subsection must be along the route of the road as determined by the City.*

RESPONSE: SW Blake Street is a proposed street that will bisect the site. We anticipate the following dedication requirements. SW Blake Street is identified as a Minor Collector in the Transportation System Plan (TSP). We propose to dedicate the right-of-way for the construction of SW Blake Street through the site on the alignment as shown on the Public Facilities Plan. The TSP identifies a minimum and preferred

section for a Minor Collector. The minimum right-of-way width is 62 feet and the preferred right-of-way width is 76 feet. We are proposing a 76-foot dedication width. Along the south property line that full width will be split with the adjacent property reducing the dedicated width to 38 feet.

**Section 74.220 Parcels Excluded from Development.**
*On subdivision development applications which include land partitioned off or having adjusted property lines from the original parcel, but do not include the original parcel, the applicant must be responsible for obtaining any necessary right-of-way from the owner of the original parcel if the right-of-way is needed to accommodate street improvements required of the applicant. The applicant must submit a completed right-of-way dedication deed to the City Manager for acceptance. The right-of-way dedication must be accepted by the City prior to the City approving the final subdivision plat.*

RESPONSE: The proposed development is not a subdivision and therefore this section does not apply.

**Section 74.310 Greenway, Natural Area, Bike, and Pedestrian Path Dedications and Easements.**
*(1) Areas dedicated to the City for Greenway or Natural Area purposes or easements or dedications for bike and pedestrian facilities during the development application process must be surveyed, staked and marked with a City approved boundary marker prior to acceptance by the City.*

*(2) For subdivision and partition applications, the Greenway, Natural Area, bike…*

*(3) For all other development applications, Greenway, Natural Area, bike, and pedestrian path dedications and easements must be submitted to the City Manager; building permits must not be issued for the development prior to acceptance of the dedication or easement by the City.*

RESPONSE: The proposed development does not include Greenways, Natural Areas, Bike and Pedestrian Paths and therefore this section does not apply.

**Section 74.320 Slope Easements.**
*(1) The applicant must obtain and convey to the City any slope easements determined by the City Manager to be necessary adjacent to the proposed development site to support the street improvements in the public right-of-way or accessway or utility improvements required to be constructed by the applicant.*

*(2) For subdivision and partition applications, the slope easement dedication area must…*

*(3) For all other development applications, a slope easement dedication must be submitted to the City Manager; building permits must not be issued for the development prior to acceptance of the easement by the City.*

RESPONSE: Slope easements may be required for SW Blake Street. The size and location of the slope easement will be determined during the design of the public improvements. If required, the easement will be submitted to the City prior to building permit issuance.

**Section 74.330 Utility Easements.**
*(1) Utility easements for water, sanitary sewer and storm drainage facilities, telephone, television cable, gas, electric lines and other public utilities must be granted to the City.*

*(2) For subdivision and partition applications, the on-site public utility easement dedication area…*

*(3) For subdivision and partition applications which require off-site public utility easements…*

*(4) For development applications other than subdivisions and partitions, and for both on-site and off-site easement areas, a utility easement must be granted to the City; building permits must not be issued for the development prior to acceptance of the easement by the City. The City may elect to exercise eminent domain and condemn necessary off-site public utility easements at the applicant's request and expense. The City Council must determine when condemnation proceedings are to be used.*

*(5) The width of the public utility easement must meet the requirements of the Public Works Construction Code. All subdivisions and partitions must have a 6-foot public utility easement adjacent to the street and a 5-foot public utility easement adjacent to all side and rear lot lines. Other easements may be required as determined by the City Manager.*

RESPONSE: The proposed development will grant utility easements as required to the City prior to building permit issuance. We are proposing a minimum 6-foot wide public utility easement along the following street frontage: SW Blake Street, SW 124th Avenue, SW Tualatin Sherwood Road and SW 120th Avenue.

**Section 74.340 Watercourse Easements.**
*(1) Where a proposed development site is traversed by or adjacent to a watercourse, drainage way, channel or stream, the applicant must provide a storm water easement, drainage right-of-way, or other means of preservation approved by the City Manager, conforming substantially with the lines of the watercourse. The City Manager must determine the width of the easement, or other means of preservation, required to accommodate all the requirements of the Surface Water Management Ordinance, existing and future storm drainage needs and access for operation and maintenance.*

*(2) For subdivision and partition applications, any watercourse easement dedication area…*

*(3) For all other development applications, any watercourse easement must be executed on a dedication form submitted to the City Manager; building permits must not be issued for the development prior to acceptance of the easement by the City.*

*(4) The storm water easement must be sized to accommodate the existing water course and all future improvements in the drainage basin. There may be additional requirements as set forth in TDC Chapter 72, Greenway and Riverbank Protection District, and the Surface Water Management Ordinance. Water quality facilities may require additional easements as described in the Surface Water Management Ordinance.*

RESPONSE: There are no watercourses, drainage ways, or channels adjacent to the development. There is an 8-foot long stream identified in the Wetland Delineation Report. The stream is located at the northwest corner of the site and will be impacted by the planned widening of SW Tualatin-Sherwood Road. A 50-foot vegetated corridor will be provided around the stream as detailed in the Clean Water Services Site Assessment and Service Provider Letter.

**Section 74.350 Maintenance Easement or Lots.**
*A dedicated lot or easement will be required when access to public improvements for operation and maintenance is required, as determined by the City Manager. Access for maintenance vehicles must be constructed of an all-weather driving surface capable of carrying a 50,000-pound vehicle. The width of the lot or easement must be at least 15-feet in order to accommodate City maintenance vehicles. In subdivisions and partitions, the easement or lot must be dedicated to the City on the final plat. In any other development, the easement or lot must be granted to the City and recorded prior to issuance of a building permit.*

RESPONSE: The applicant acknowledges this requirement. We anticipate that there may be a need for a public stormwater facility near the intersection of SW Tualatin-Sherwood Road and SW 124th Avenue that would require an access easement.

**Section 74.410 Future Street Extensions.**
*(1) Streets must be extended to the proposed development site boundary where necessary to do any one of the following:*

*(a) give access to, or permit future development of adjoining land;*

*(b) provide additional access for emergency vehicles;*

*(c) provide for additional direct and convenient pedestrian, bicycle and vehicle circulation;*

*(d) eliminate the use of cul-de-sacs except where topography, barriers such as railroads or freeways, existing development, or environmental constraints such as major streams and rivers prevent street extension; and*

*(e) eliminate circuitous routes. The resulting dead-end streets may be approved without a turnaround. A reserve strip may be required to preserve the objectives of future street extensions.*

RESPONSE: The proposed development will extend SW Blake Street east from SW 124th Avenue. SW Blake Street will be a dead-end street until the redevelopment of the large quarry parcels south of the site. There are currently no known plans for the redevelopment of the quarry parcels.

The development is proposing to construct SW Blake Street to the site access point and not the easterly site boundary. The development is proposing to dedicate right-of-way to the easterly boundary. While SW Blake Street will eventually provide access to future development to the south, the quarry site has access to SW 120th Avenue and SW 124th Avenue as well. Constructing SW Blake Street to the easterly

site boundary as part of this project would result in approximately 800 lineal feet of dead end, unused roadway.

*(2) Proposed streets must comply with the general location, orientation and spacing identified in the Functional Classification Plan (Figure 11-1), Local Streets Plan (TDC 11.630 and Figure 11-3) and the Street Design Standards (Figures 74-2A through 74-2G).*

*(a) Streets and major driveways, as defined in TDC 31.060, proposed as part of new residential or mixed residential/commercial developments must comply with the following standards:*

*(i) full street connections with spacing of no more than 530 feet between connections, except where prevented by barriers;*

*(ii) bicycle and pedestrian accessway easements where full street connections are not possible, with spacing of no more than 330 feet, except where prevented by barriers;*

*(iii) limiting cul-de-sacs and other closed-end street systems to situations where barriers prevent full street extensions; and*

*(iv) allowing cul-de-sacs and closed-end streets to be no longer than 200 feet or with more than 25 dwelling units, except for streets stubbed to future developable areas.*

*(b) Streets proposed as part of new industrial or commercial development must comply with TDC 11.630, Figure 11-1, and Figures 74-2A through 74-2G.*

RESPONSE: The location of the 124th/Blake intersection was determined and set approximately 1,100 feet south of SW Tualatin-Sherwood Road by Washington County in conjunction with planning efforts associated with the Willamette Water Supply Program (WWSP) treatment plant project. This location is further north than the location identified in the Southwest Concept Plan (SCP) and the Transportation System Plan (TSP).

The development is proposing to extend SW Blake Street east as necessary to accommodate necessary radii and queuing and then southerly, paralleling SW 124th Avenue to southerly property line where it will turn east again and run parallel with the southerly property line to the eastern property line in alignment with the location identified in the SCP.

The SCP shows SW 120th splitting South of SW Itel. South of SW Itel two streets would run south to SW Blake Street. The two streets were envisioned to support a high-density mixed-use development area. The westerly street would cut through the PGE site and the easterly street would run adjacent to Itel Commerce Park. The mixed-used development would sit between the two streets.

With the development of the PGE IOC, the high-density mixed-use development west of the water bodies will not be constructed. Due to this, dual north south connections between Itel and Blake are no longer required. We believe the easterly north-south connection provides the best benefit for future

development and the best chance for eventual construction and that the westerly north south connection is not required. Additional items supporting the elimination of the western leg include:

- The easterly connection avoids conflicts with ponds east of the proposed site that are on the National Wetland Inventory.
- The easterly connection avoids topographic constraints associated with the west leg along the east property line.
- The easterly connection avoids delineated wetlands at the southeast corner of the PGE site.
- The easterly connection provides better potential access to the flag portion of the quarry site as the westerly connection would need to cross the mapped wetlands.

*(3) During the development application process, the location, width, and grade of streets must be considered in relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of the land to be served by the streets. The arrangement of streets in a subdivision must either:*

*(a) provide for the continuation or appropriate projection of existing streets into surrounding areas; or*

*(b) conform to a street plan approved or adopted by the City to meet a particular situation where topographical or other conditions make continuance of or conformance to existing streets impractical.*

RESPONSE: The proposed SW Blake Street alignment is located on a ridge at the high point of the proposed site. In order to allow access from SW Blake Street to the proposed development the elevation of SW Blake Street at the driveway location needs to be minimized.

A profile for the proposed alignment of SW Blake Street is included on Exhibit A.

*(4) The City Manager may require the applicant to submit a street plan showing all existing, proposed, and future streets in the area of the proposed development.*

RESPONSE: The proposed alignment of SW Blake Street is shown graphically on Exhibit A.

*(5) The City Manager may require the applicant to participate in the funding of future off-site street extensions when the traffic impacts of the applicant's development warrant such a condition.*

RESPONSE: The applicant does not believe that the limited traffic impacts of the proposed development warrant funding of any additional off-site street improvements.

**Section 74.420 Street Improvements.**
*When an applicant proposes to develop land adjacent to an existing or proposed street, including land which has been excluded under TDC 74.220, the applicant should be responsible for the improvements to the adjacent existing or proposed street that will bring the improvement of the street into conformance*

*with the Transportation Plan (TDC Chapter 11), TDC 74.425 (Street Design Standards), and the City' s Public Works Construction Code, subject to the following provisions:*

*(1) For any development proposed within the City, roadway facilities within the right-of-way described in TDC 74.210 must be improved to standards as set out in the Public Works Construction Code.*

RESPONSE: In addition to the construction of SW Blake Street described above, a half street improvement will be constructed along the site frontage on SW 120th Avenue.

*(2) The required improvements may include the rebuilding or the reconstruction of any existing facilities located within the right-of-way adjacent to the proposed development to bring the facilities into compliance with the Public Works Construction Code.*

RESPONSE: The applicant does not anticipate the need to rebuild or reconstruct any existing facilities located within the right-of-way to bring them into compliance with the Public Works Construction Code.

The northerly 250 feet of SW 120th Avenue meets the pavement width requirements outlined in the City of Tualatin Commercial/Industrial Connector section. The existing 6-foot sidewalk is adjacent to the curb as opposed to behind the planter strip as shown on the Section. Maintaining the sidewalk for this section in its current curb location will provide an equal function to placing it behind a 4-foot planter strip and therefore we recommend that this condition can remain. Portions of the sidewalk determined not to meet current ADA/PROWAG requirements including the existing driveway will be reconstructed to meet those requirements.

The southern 390 will be constructed with a 4-foot planter strip in between the sidewalk and curb as shown on the Public Facilities Plan included in this application.

*(3) The required improvements may include the construction or rebuilding of off-site improvements which are identified to mitigate the impact of the development.*

RESPONSE: The applicant does not anticipate the need to rebuild or reconstruct any existing facilities located within the right-of-way to bring them into compliance with the Public Works Construction Code.

*(4) Where development abuts an existing street, the improvement required must apply only to that portion of the street right-of-way located between the property line of the parcel proposed for development and the centerline of the right-of-way, plus any additional pavement beyond the centerline deemed necessary by the City Manager to ensure a smooth transition between a new improvement and the existing roadway (half-street improvement). Additional right-of-way and street improvements and off-site right-of-way and street improvements may be required by the City to mitigate the impact of the development. The new pavement must connect to the existing pavement at the ends of the section being improved by tapering in accordance with the Public Works Construction Code.*

RESPONSE: The applicant acknowledges this requirement and does not believe it will impact requirements for this development.

*(5) If additional improvements are required as part of the Access Management Plan of the City, TDC Chapter 75, the improvements must be required in the same manner as the half-street improvement requirements.*

RESPONSE: Additional improvements as required by an Access Management Plan are not required.

*(6) All required street improvements must include curbs, sidewalks with appropriate buffering, storm drainage, street lights, street signs, street trees, and, where designated, bikeways and transit facilities.*

RESPONSE: The proposed half street improvement on SW 120th Avenue will include curbs, sidewalks, buffering, storm drainage, street lights, street signs and street trees. SW 120th Avenue is a Commercial/Industrial Connector and therefore bikeways are not required. Transit facilities do not exist on SW 120th Avenue.

*(7) For subdivision and partition applications, the street improvements…*

RESPONSE: The proposed development does not include a subdivision or partition and therefore this section does not apply.

*(8) For development applications other than subdivisions and partitions, all street improvements required by this section must be completed and accepted by the City prior to the issuance of a Certificate of Occupancy.*

RESPONSE: Street improvements will be completed prior to receiving a Certificate of Occupancy. The exception being the potential phasing of the half street improvements required for SW 124th Avenue.

*(9) In addition to land adjacent to an existing or proposed street, the requirements of this section must apply to land separated from such a street only by a railroad right-of-way.*

RESPONSE: There are no railroad rights-of-way adjacent to the site therefore this section does not apply.

*(10) Streets within, or partially within, a proposed development site must be graded for the entire right-of-way width and constructed and surfaced in accordance with the Public Works Construction Code.*

RESPONSE: SW Blake Street will be graded for the entire right-of-way width and constructed and surfaced in accordance with the Public Works Construction Code to from SW 124th Avenue to the site access point approximately 300 feet from the southerly site property line.

*(11) Existing streets which abut the proposed development site must be graded, constructed, reconstructed, surfaced or repaired as necessary in accordance with the Public Works Construction Code and TDC Chapter 11, Transportation Plan, and TDC 74.425 (Street Design Standards).*

RESPONSE: SW 120th Avenue is identified at a Commercial/Industrial Connector in the TSP. The half street of SW 120th Avenue adjacent to the site will be improved to match the Commercial/Industrial standard section in accordance with the Public Works Construction Code and TDC Chapter 11, Transportation Plan, and TDC 74.425.

This will require the addition of curb, sidewalk, planter strip, storm drainage, street lights, street signs and street trees.

*(12) Sidewalks with appropriate buffering must be constructed along both sides of each internal street and at a minimum along the development side of each external street in accordance with the Public Works Construction Code.*

RESPONSE: Sidewalks with appropriate buffering will be constructed as required.

*(13) The applicant must comply with the requirements of the Oregon Department of Transportation (ODOT), Tri-Met, Washington County and Clackamas County when a proposed development site is adjacent to a roadway under any of their jurisdictions, in addition to the requirements of this chapter.*

RESPONSE: The project is adjacent to SW 124th Avenue and SW Tualatin-Sherwood Road, two roadways under Washington County jurisdiction. The development team has had initial meetings and correspondence with Washington County concerning the required improvements on those roadways. We have the following understanding.

On SW 124th Avenue half street improvement will be required. The condition will likely include pavement width for a 14-foot left turn, two 12-foot travel lanes and an 8-foot bike lane along with curb, planter strip and sidewalk. The county may include this work in their SW Tualatin Sherwood Road widening project which is schedule to be constructed in 2024 with funding provided by PGE.

Washington County is currently working on a widening project for SW Tualatin-Sherwood Road. They have indicated that they would not be seeking funds for the future widening from the proposed development.

*(14) The applicant must construct any required street improvements adjacent to parcels excluded from development, as set forth in TDC 74.220 of this chapter.*

RESPONSE: This section does not apply.

*(15) Except as provided in TDC 74.430, whenever an applicant proposes to develop land with frontage on certain arterial streets and, due to the access management provisions of TDC Chapter 75, is not allowed direct access onto the arterial, but instead must take access from another existing or future public street thereby providing an alternate to direct arterial access, the applicant must be required to construct and place at a minimum street signage, a sidewalk, street trees and street lights along that portion of the arterial street adjacent to the applicant's property. The three certain arterial streets are S.W. Tualatin-Sherwood Road, S.W. Pacific Highway (99W) and S.W. 124th Avenue. In addition, the applicant may be*

*required to construct and place on the arterial at the intersection of the arterial and an existing or future public non-arterial street warranted traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices, latest edition), pavement markings, street tapers and turning lanes, in accordance with the Public Works Construction Code.*

RESPONSE: The project does propose to take access off a future public street as opposed to one of the two arterials that are adjacent to the site. As noted in our response to Item 13 above, the project will provide half street improvements on SW 124th Avenue as required by Washington County. Improvements on SW Tualatin-Sherwood Road are not anticipated as part of this project due to the future widening project that will be completed by Washington County.

As outlined in the Transportation Impact Study for the development completed by Lancaster Engineering a traffic signal is not warranted at the 124th/Blake intersection. Pavement markings will be provided to delineate a southbound left turn lane from 124th onto Blake. A stop controlled left and right turn lane with approximately 60-feet of queuing will be provided on Blake at the intersection. These improvements will be constructed in accordance with the Public Works Construction Code and Washington County standards.

*(16) The City Manager may determine that, although concurrent construction and placement of the improvements in (14) and (15) of this section, either individually or collectively, are impractical at the time of development, the improvements will be necessary at some future date. In such a case, the applicant must sign a written agreement guaranteeing future performance by the applicant and any successors in interest of the property being developed. The agreement must be subject to the City's approval.*

RESPONSE: The applicant does not anticipate the need for an agreement guaranteeing future performance and/or construction of street improvements.

*(17) Intersections should be improved to operate at a level of service of at least D and E for signalized and unsignalized intersections, respectively.*

RESPONSE: As outlined in the Transportation Impact Study for the development completed by Lancaster Engineering intersections will operate at a level of service above D and E.

*(18) Pursuant to requirements for off-site improvements as conditions of development approval, proposed multi-family residential, commercial, or institutional uses that are adjacent to a major transit stop will be required to comply with the City's Mid-Block Crossing Policy.*

RESPONSE: The proposed development is not adjacent to a major transit stop and therefore this section does not apply.

**Section 74.425 Street Design Standards.**
*(1) Street design standards are based on the functional and operational characteristics of streets such as travel volume, capacity, operating speed, and safety. They are necessary to ensure that the system of*

*streets, as it develops, will be capable of safely and efficiently serving the traveling public while also accommodating the orderly development of adjacent lands.*

RESPONSE: SW Blake Street is Minor Collector in the TSP. SW 120th Avenue is identified as a Commercial Industrial Connector.

*(2) The proposed street design standards are shown in Figures 72A through 72G. The typical roadway cross sections comprise the following elements: right-of-way, number of travel lanes, bicycle and pedestrian facilities, and other amenities such as landscape strips. These figures are intended for planning purposes for new road construction, as well as for those locations where it is physically and economically feasible to improve existing streets.*

RESPONSE: The applicant does not anticipate modifications to the street improvements requirements in TDC 74.420 will be required with the following exceptions:

- Modifications to SW Blake Street eliminating on-street parking and lane striping as described in our response to 74.425.4.
- Maintaining the existing curb tight sidewalk on the north half of SW 120th Avenue and transitioning to a separated sidewalk on the south end for the new construction.

*(3) In accordance with the Tualatin Basin Program for fish and wildlife habitat it is the intent of Figures 74-2A through 74-2G to allow for modifications to the standards when deemed appropriate by the City Manager to address fish and wildlife habitat.*

RESPONSE: The applicant does not anticipate the need to modify the proposed street design standards to address fish and wildlife habitat.

*(4) All streets must be designed and constructed according to the preferred standard. The City Manager may reduce the requirements of the preferred standard based on specific site conditions, but in no event will the requirement be less than the minimum standard. The City Manager must take into consideration the following factors when deciding whether the site conditions warrant a reduction of the preferred standard:*

*(a) Arterials:*

*(i) Whether adequate right-of-way exists;*

*(ii) Impacts to properties adjacent to right-of-way;*

*(iii) Current and future vehicle traffic at the location; and*

*(iv) Amount of heavy vehicles (buses and trucks).*

*(b) Collectors:*

*(i) Whether adequate right-of-way exists;*

*(ii) Impacts to properties adjacent to right-of-way;*

*(iii) Amount of heavy vehicles (buses and trucks); and*

*(iv) Proximity to property zoned manufacturing or industrial.*

*(c) Local Streets:*

*(i) Local streets proposed within areas which have environmental constraints and/or sensitive areas and will not have direct residential access may utilize the minimum design standard.*

*(ii) When the minimum design standard is allowed, the City Manager may determine that no parking signs are required on one or both sides of the street.*

RESPONSE: The development is proposing to construct SW Blake Street in general conformance with the preferred standard for a Minor Collector. However, as outlined in the Transportation Impact Study, due to the industrial character of the area, which lacks residential or commercial development that may generate foot traffic and the security needs of PGE, it is recommended that SW Blake Street be constructed without on-street parking from SW 124th Avenue eastward to the proposed driveway access point.

The applicant is proposing to construct the full pavement width of 52-feet outlined in the preferred section. However, in lieu of a 8' parking, 6' bike, 12' travel, 12' travel, 6' bike, 8' parking we are proposing a 7' bike, 12' travel, 14' center, 12' travel, 7' configuration.

The proposed configuration will allow for the required left and right turn lanes at SW 124th Avenue and a left turn lane into the site. It also allows for the flexibility of the future extension of SW Blake Street to meet the preferred standard.

**Section 74.430 Streets, Modifications of Requirements in Cases of Unusual Conditions.**
*(1) When, in the opinion of the City Manager, the construction of street improvements in accordance with TDC 74.420 would result in the creation of a hazard, or would be impractical, or would be detrimental to the City, the City Manager may modify the scope of the required improvement to eliminate such hazardous, impractical, or detrimental results. Examples of conditions requiring modifications to improvement requirements include but are not limited to horizontal alignment, vertical alignment, significant stands of trees, fish and wildlife habitat areas, the amount of traffic generated by the proposed development, timing of the development or other conditions creating hazards for pedestrian, bicycle or motor vehicle traffic. The City Manager may determine that, although an improvement may be impractical at the time of development, it will be necessary at some future date. In such cases, a*

*written agreement guaranteeing future performance by the applicant in installing the required improvements must be signed by the applicant and approved by the City.*

RESPONSE: The applicant does not anticipate the need for a written agreement guaranteeing future performance will be required for this development.

*(2) When the City Manager determines that modification of the street improvement requirements in TDC 74.420 is warranted pursuant to subsection (1) of this section, the City Manager must prepare written findings of modification. The City Manager must forward a copy of said findings and description of modification to the applicant, or his authorized agent, as part of the Utility Facilities Review for the proposed development, as provided by TDC Chapter 32 (Procedures). The decision of the City Manager may be appealed to the City Council in accordance with TDC Chapter 32 (Procedures).*

RESPONSE: The applicant does not anticipate modifications to the street improvements requirements in TDC 74.420 will be required with the following exceptions:

- Modifications to SW Blake Street eliminating on-street parking and lane striping as described in our response to 74.425.4.
- Maintaining the existing curb tight sidewalk on the north half of SW 120th Avenue and transitioning to a separated sidewalk on the south end for the new construction.

*(3) To accommodate bicyclists on streets prior to those streets being upgraded to the full standards, an interim standard may be implemented by the City. These interim standards include reduction in motor vehicle lane width to 10 feet [the minimum specified in AASHTO's A Policy on Geo-metric Design of Highways and Streets (1990)], a reduction of bike lane width to 4-feet (as measured from the longitudinal gutter joint to the centerline of the bike lane stripe), and a paint-striped separation 2 to 4 feet wide in lieu of a center turn lane. Where available roadway width does not provide for these minimums, the roadway can be signed for shared use by bicycle and motor vehicle travel. When width constraints occur at an intersection, bike lanes should terminate 50 feet from the intersection with appropriate signing.*

RESPONSE: The applicant does not anticipate the need for interim modifications to accommodate bicyclists.

**Section 74.440 Streets, Traffic Study Required.**
*(1) The City Manager may require a traffic study to be provided by the applicant and furnished to the City as part of the development approval process as provided by this Code, when the City Manager determines that such a study is necessary in connection with a proposed development project in order to:*

> *(a) Assure that the existing or proposed transportation facilities in the vicinity of the proposed development are capable of accommodating the amount of traffic that is expected to be generated by the proposed development, and/or*

*(b) Assure that the internal traffic circulation of the proposed development will not result in conflicts between on-site parking movements and/or on-site loading movements and/or on-site traffic movements, or impact traffic on the adjacent streets.*

RESPONSE: A Transportation Impact Study for the development has been completed by Lancaster Engineering and is included in this application. The study shows that the transportation facilities in the vicinity of the development are capable of accommodating the amount of traffic expected to be generated by the development with the following improvements:

- The existing two-way left turn lane striping on SW 124th Avenue should be reconfigured to provide a dedicated left-turn lane for the southbound left turn movement at Blake Street.
- SW Blake Street should be constructed with a separate westbound left- and right-turn lanes in preparation for a future signal which is not warranted currently.

*(2) The required traffic study must be completed prior to the approval of the development application.*

RESPONSE: The Transportation Impact Study is included in the Architectural Review submittal.

*(3) The traffic study must include, at a minimum:*

*(a) an analysis of the existing situation, including the level of service on adjacent and impacted facilities.*

*(b) an analysis of any existing safety deficiencies.*

*(c) proposed trip generation and distribution for the proposed development.*

*(d) projected levels of service on adjacent and impacted facilities.*

*(e) recommendation of necessary improvements to ensure an acceptable level of service for roadways and a level of service of at least D and E for signalized and unsignalized intersections respectively, after the future traffic impacts are considered.*

*(f) The City Manager will determine which facilities are impacted and need to be included in the study.*

*(g) The study must be conducted by a registered engineer.*

RESPONSE: The scope of the Transportation Impact Study was coordinated by Lancaster Engineering with the City of Tualatin and Washington County.

*(4) The applicant must implement all or a portion of the improvements called for in the traffic study as determined by the City Manager.*

RESPONSE: The responses in this narrative and the Public Facilities Plan are based on the recommendations included in the Traffic Impact Study.

**Section 74.460 Accessways in Residential, Commercial and Industrial Subdivisions and Partitions.**

RESPONSE: The proposed development is not a subdivision or partition and therefore this section does not apply.

**Section 74.470 Street Lights.**
*(1) Street light poles and luminaries must be installed in accordance with the Public Works Construction Code.*

RESPONSE: Street lights will be provided in accordance with the Public Works Construction Code on SW Blake Street, SW 120th Avenue and SW 124th Avenue.

*(2) The applicant must submit a street lighting plan for all interior and exterior streets on the proposed development site prior to issuance of a Public Works Permit.*

RESPONSE: The street lighting plan will be submitted prior to issuance of the Public Works Permit.

**Section 74.475 Street Names.**
*(1) A street name must not be used which will duplicate or be confused with the names of existing streets in the Counties of Washington or Clackamas, except for extensions of existing streets. Street names and numbers must conform to the established pattern in the surrounding area.*

*(2) The City Manager must maintain the approved list of street names from which the applicant may choose. Prior to the creation of any street, the street name must be approved by the City Manager.*

RESPONSE: The development is not proposing any new street names and therefore this section does not apply.

**Section 74.480 Street Signs.**
*(1) Street name signs must be installed at all street intersections in accordance with standards adopted by the City.*

*(2) Stop signs and other traffic control signs (speed limit, dead-end, etc.) may be required by the City.*

*(3) Prior to approval of the final subdivision or partition plat, the applicant must pay the City a non-refundable fee equal to the cost of the purchase and installation of street signs, traffic control signs and street name signs. The location, placement, and cost of the signs must be determined by the City.*

RESPONSE: The applicant acknowledges this requirement and anticipates the need to install street and traffic signs as determined during the Public Works Permit review process.

**Section 74.485 Street Trees.**
*(1) Prior to approval of a residential subdivision or partition final plat…*

*(2) In nonresidential subdivisions and partitions street trees must be planted by the owners of the individual lots as development occurs.*

*(3) The Street Tree Ordinance specifies the species of tree which is to be planted and the spacing between trees.*

RESPONSE: The applicant acknowledges this requirement and anticipates the need to install street trees as determined during the Public Works Permit review process.

**Section 74.610 Water Service.**
*(1) Water lines must be installed to serve each property in accordance with the Public Works Construction Code. Water line construction plans must be submitted to the City Manager for review and approval prior to construction.*

RESPONSE: The applicant proposes to receive water service from the proposed 12-inch public water main in SW 120th Avenue as described below.

*(2) If there are undeveloped properties adjacent to the subject site, public water lines must be extended by the applicant to the common boundary line of these properties. The lines must be sized to provide service to future development, in accordance with the City's Water System Master Plan, TDC Chapter 12.*

RESPONSE: In coordination with the Public Works Director a 12-inch water main extension is required in SW 120th Avenue and approximately 200 lineal feet in SW Itel Street completing a loop in the municipal system.

*(3) As set forth is TDC Chapter 12, Water Service, the City has three water service levels. All development applicants must be required to connect the proposed development site to the service level in which the development site is located. If the development site is located on a boundary line between two service levels the applicant must be required to connect to the service level with the higher reservoir elevation. The applicant may also be required to install or provide pressure reducing valves to supply appropriate water pressure to the properties in the proposed development site.*

RESPONSE: The existing 16-inch main in SW Tualatin Sherwood Road is a service level A main. The existing 12-inch main stubbed into SW 120th Avenue is a service level B main. We understand that service level B main has the higher reservoir elevation and therefore the project will connect to it for water service.

**Section 74.620 Sanitary Sewer Service.**

*(1) Sanitary sewer lines must be installed to serve each property in accordance with the Public Works Construction Code. Sanitary sewer construction plans and calculations must be submitted to the City Manager for review and approval prior to construction.*

RESPONSE: The applicant proposes to receive sanitary sewer service from the proposed 12-inch public sanitary sewer main in SW Itel Street as described below.

*(2) If there are undeveloped properties adjacent to the proposed development site which can be served by the gravity sewer system on the proposed development site, the applicant must extend public sanitary sewer lines to the common boundary line with these properties. The lines must be sized to convey flows to include all future development from all up stream areas that can be expected to drain through the lines on the site, in accordance with the City's Sanitary Sewer System Master Plan, TDC Chapter 13.*

RESPONSE: In coordination with the Public Works Director an approximately 200 lineal foot, 12-inch sanitary sewer main extension is required in SW Itel Street.

**Section 74.630 Storm Drainage System.**
*(1) Storm drainage lines must be installed to serve each property in accordance with City standards. Storm drainage construction plans and calculations must be submitted to the City Manager for review and approval prior to construction.*

RESPONSE: The site currently drains to two 21-inch culverts that run under Tualatin Sherwood Road at the northeast corner of the site. The proposed development proposes to maintain the current drainage path and outfall to the two 21-inch culverts.

*(2) The storm drainage calculations must confirm that adequate capacity exists to serve the site. The discharge from the development must be analyzed in accordance with the City's Storm and Surface Water Regulations.*

RESPONSE: Stormwater calculations have been provided in the Architectural Review submittal.

*(3) If there are undeveloped properties adjacent to the proposed development site which can be served by the storm drainage system on the proposed development site, the applicant must extend storm drainage lines to the common boundary line with these properties. The lines must be sized to convey expected flows to include all future development from all up stream areas that will drain through the lines on the site, in accordance with the Tualatin Drainage Plan in TDC Chapter 14.*

RESPONSE: There are no undeveloped parcels adjacent to the site. The property is surrounded by public streets on three sides and an active quarry site to the south. Review of the historic topography does not indicate a natural drainage way at the southerly property line, hence no potential for upstream development. Drainage from the quarry appears to pass through a series of ponds near the southerly end of the existing SW 120th Street. These flows are collected along the east property line near the existing wetland and will be conveyed through the site to the existing twin 21-inch culverts under Tualatin-Sherwood Road.

Storm drainage facilities will be provided for SW 120th Avenue, SW 124th Avenue and SW Blake Street. The applicant proposes to extend a 12-inch public storm main in SW 120th Avenue from SW Tualatin Sherwood Road to SW Itel Street. The main will serve as one potential connection point for redevelopment of the quarry site and rerouting of the current drainage that runs through the site.

**Section 74.640 Grading.**
*(1) Development sites must be graded to minimize the impact of storm water runoff onto adjacent properties and to allow adjacent properties to drain as they did before the new development.*

RESPONSE: The proposed development will not negatively impact the drainage of adjacent parcels.

*(2) A development applicant must submit a grading plan showing that all lots in all portions of the development will be served by gravity drainage from the building crawl spaces; and that this development will not affect the drainage on adjacent properties. The City Manager may require the applicant to remove all excess material from the development site.*

RESPONSE: A Grading Plan is provided with the Architectural Review submittal that demonstrates the feasibility of onsite drainage and shows no adverse drainage impacts to adjacent properties.

**Section 74.650 Water Quality, Storm Water Detention and Erosion Control.**
*The applicant must comply with the water quality, storm water detention and erosion control requirements in the Surface Water Management Ordinance. If required:*

*(1) On subdivision and partition development applications, prior to approval of the final plat…*

*(2) On all other development applications, prior to issuance of any building permit, the applicant must arrange to construct a permanent on-site water quality facility and storm water detention facility and submit a design and calculations indicating that the requirements of the Surface Water Management Ordinance will be met and obtain a Stormwater Connection Permit from Clean Water Services.*

RESPONSE: Permanent on-site water quality and stormwater detention facilities will be provided. The proposed facilities are shown on the plans and stormwater calculations submitted with the Architectural Review submittal.

*(3) For on-site private and regional non-residential public facilities, the applicant must submit a stormwater facility agreement, which will include an operation and maintenance plan provided by the City, for the water quality facility for the City's review and approval. The applicant must submit an erosion control plan prior to issuance of a Public Works Permit. No construction or disturbing of the site must occur until the erosion control plan is approved by the City and the required measures are in place and approved by the City.*

RESPONSE: The applicant acknowledges the stated requirements and will comply with the required documentation and approval process.

**Section 74.660 Underground.**
*(1) All utility lines including, but not limited to, those required for gas, electric, communication, lighting and cable television services and related facilities must be placed underground. Surface-mounted transformers, surface-mounted connection boxes and meter cabinets may be placed above ground. Temporary utility service facilities, high capacity electric and communication feeder lines, and utility transmission lines operating at 50,000 volts or above may be placed above ground. The applicant must make all necessary arrangements with all utility companies to provide the underground services. The City reserves the right to approve the location of all surface-mounted transformers.*

RESPONSE: Utility services lines to the site will be placed underground.

*(2) Any existing overhead utilities may not be upgraded to serve any proposed development. If existing overhead utilities are not adequate to serve the proposed development, the applicant must, at their own expense, provide an underground system. The applicant must be responsible for obtaining any off-site deeds and/or easements necessary to provide utility service to this site; the deeds and/or easements must be submitted to the City Manager for acceptance by the City prior to issuance of the Public Works Permit.*

RESPONSE: Utility services lines serving the site will be placed underground and will not require upgrades to existing overhead utilities. This section is not applicable.

**Section 74.670 Existing Structures.**
*(1) Any existing structures requested to be retained by the applicant on a proposed development site must be connected to all available City utilities at the expense of the applicant.*

*(2) The applicant must convert any existing overhead utilities serving existing structures to underground utilities, at the expense of the applicant.*

*(3) The applicant must be responsible for continuing all required street improvements adjacent to the existing structure, within the boundaries of the proposed development site.*

RESPONSE: The proposed development does not plan on retaining any structures on the site. The existing farm house and farm structures will be removed.

**Section 74.700 Removal, Destruction or Injury of Trees.**
*It is unlawful for a person, without a written permit from the City Manager, to remove, destroy, break or injure a tree, plant or shrub, that is planted or growing in or upon a public right-of-way within the City, or cause, authorize, or procure a person to do so, authorize or procure a person to injure, misuse or remove a device set for the protection of any tree, in or upon a public right-of-way.*

RESPONSE: The applicant acknowledges and will comply with the requirements. There are no trees within the existing public right-of-way adjacent to the site. Tree removal will be required for the

widening of SW 124th Avenue on the south end of the site and for the construction of SW Blake Street through the site.

**Section 74.705 Street Tree Removal Permit.**
*(1) A person who desires to remove or destroy a tree, as defined in TDC 31.060, in or upon public right-of-way must make application to the Operations Director on City forms.*

*(2) The applicant must provide:*

*(a) the applicant's name and contact information and if applicable that of the applicant's contractor;*

*(b) the number and species of all street trees the applicant desires to remove;*

*(c) a clear description of the street trees' the applicant desires to remove;*

*(d) the date of removal;*

*(e) the reason(s) for removal; and*

*(f) other information as the Operations Director deems necessary.*

*(3) Upon the City Manager approving the removal of a street tree, the applicant or designated contractor must replace each removed tree on a one-for-one basis by fulfilling the following requirements:*

*(a) Remove both the tree and stump prior to planting a replacement tree, or re-quest the City to remove the tree and stump and pay the applicable fee(s) established in TDC 74.706; and*

*(b) Replace the removed tree by planting a species of street tree permitted by Schedule A of the TDC Chapter 74 within the time period specified in writing by the City Manager; or, the applicant may request within sixty (60) days of the permit approval date that the City replace the street tree and pay the applicable fee(s) established in TDC 74.706. If an applicant opts for the City to plant the replacement tree, the City may plant the tree on its usual tree-planting schedule. Planting done by the applicant or designated contractor must comply with all applicable TDC sections and any additional requirements imposed by the City Manager.*

*(c) The applicant must comply with all applicable TDC sections and additional requirements imposed by the City Manager. The City Manager may waive the one-for-one replacement requirement if the City Manager determines that the replacement would:*

*(i) conflict with public improvements or utility facilities, including but not limited to fire hydrants, water meters and pipes, lighting fixtures, traffic control signs; private improvements or utility facilities – including but not limited to driveways and power, gas, telephone, cable television lines; or, minimum vision clearance;*

*(ii) interfere with the existing canopy of adjacent trees, the maturation of the crown of the proposed replacement tree, or both;*

*(iii) cause a conflict by planting trees too close to each other, hurting their health;*

*(iv) limit the selection of species from Schedule A: and;*

*(v) direct how to plant replacement tree(s).*

*(d) A person who fails to comply with TDC 74.705 must pay an enforcement fee and a restoration fee to the City of Tualatin, as set forth in TDC 34.220(3), in addition to civil penalties in TDC 31.111.*

RESPONSE: There are no trees within the existing public right-of-way adjacent to the site and street tree removals are not anticipated.

**Section 74.706 Street Tree Fees.**
*A person who applies to remove a street tree under TDC 74.705 must pay all costs incurred by the City as reflected in the applicable fees listed in the city of Tualatin Fee Schedule. City actions and associated fees include but are not limited to inspection of a street tree requested for removal, removal of a street tree, removal of a stump, planting of a street tree, and inspection(s) to determine if the applicant has fulfilled permit requirements.*

RESPONSE: The project will not remove any street trees.

**Section 74.707 Street Tree Voluntary Planting.**
*A person who desires to plant a tree in or upon a public right-of-way may plant or have the City plant a species of street tree permitted by TDC Chapter 74 Schedule A without a City permit, if the tree is not a re-placement for a tree that the person has removed. Such a person may submit a request to the City with payment of fee(s) so that the City may plant a street tree. If a stump exists where a street tree is to be planted, the person must remove the stump or pay a fee to the City as established in TDC 74.706 so that the City may remove the stump on behalf of the person. In all instances, a person who desires to plant a tree must comply with other applicable TDC sections and any additional requirements of the City Manager.*

RESPONSE: New street trees will be proposed in conjunction with the Public Works Permit submittals.

**Section 74.708 Street Tree Emergencies.**
*(1) If emergency conditions occur that require the immediate cutting or removal of street trees to avoid danger or hazard to persons or property, the City Manager must issue emergency permits without payment of fees and formal applications. If the City Manager is unavailable, the adjacent property owners may proceed to cut the trees without permits to the extent necessary to eliminate the immediate danger or hazard. If a street tree is cut under this section without filing of an application with the City*

*Manager, the person doing so must report the action to the City Manager within two City business days without payment of fee and must provide such information and evidence as may be reasonably required by the City Manager to explain and justify the removal.*

*(2) In all instances, a person who removes a street tree as a result of an emergency must replace it within sixty (60) days of notifying the City Manager. The City reserves the right to waive this requirement.*

*(3) A person who fails to comply with TDC 74.708 must pay an enforcement fee and a restoration fee to the City of Tualatin, as set forth in TDC 34.220(3), in addition to civil penalties in TDC 31.111.*

*(4) If no emergency is found to exist, no person must cut or remove a street tree without complying with the requirement of the Tualatin Development Code*

RESPONSE: The applicant does not anticipate any street tree emergencies associated with the project.

**Section 74.710 Open Ground.**
*When impervious material or substance is laid down or placed in or upon a public right-of-way near a tree, at least nine square feet of open ground for a tree up to three inches in diameter must be provided about the base of the trunk of each tree.*

RESPONSE: The development does not propose any new impervious surface adjacent to any existing street trees.

**Section 74.715 Attachments to Trees.**
*It is unlawful for a person to attach or keep attached a rope, wire, chain, sign or other device to a tree, plant or shrub in or upon a public right-of-way or to the guard or stake intended for the protection of such tree, except as a support for a tree, plant or shrub.*

RESPONSE: The development does not propose any attachment to existing or proposed trees.

**Section 74.720 Protection of Trees During Construction.**
*(1) During the erection, repair, alteration or removal of a building or structure, it is unlawful for the person in charge of such erection, repair, alteration or removal to leave a tree in or upon a public right-of-way in the vicinity of the building or structure without a good and sufficient guard or protectors to prevent injury to the tree arising out of or by reason of such erection, repair, alteration or removal.*

*(2) Excavations and driveways must not be placed within six feet of a tree in or upon a public right-of-way without written permission from the City Manager. During excavation or construction, the person must guard the tree within six feet and all building material or other debris must be kept at least four feet from any tree.*

RESPONSE: There are no trees within the existing public right-of-way adjacent to the site and therefore tree protection is not required.

**Section 74.725 Maintenance Responsibilities.**
*Trees, shrubs or plants standing in or upon a public right-of-way, on public or private grounds that have branches projecting into the public street or sidewalk must be kept trimmed by the owner of the property adjacent to or in front of where such trees, shrubs or plants are growing so that:*

*(1) The lowest branches are not less than 12 feet above the surface of the street, and are not be less than 14 feet above the surface of streets designated as state highways.*

*(2) The lowest branches are not less than eight feet above the surface of a sidewalk or footpath.*

*(3) A plant, tree, bush or shrub must not be more than 24 inches in height in the triangular area at the street or highway corner of a corner lot, or the alley-street intersection of a lot, such an area defined by a line across the corner between the points on the street right-of-way line measured 10 feet back from the corner, and extending the line to the street curbs or, if there are no curbs, then to that portion of the street or alley used for vehicular traffic.*
*(4) Newly planted trees may remain untrimmed if they do not interfere with street traffic or persons using the sidewalk or obstruct the light of a street electric lamp.*

*(5) Maintenance responsibilities of the property owner include repair and upkeep of the sidewalk in accordance with the City Sidewalk Maintenance Ordinance.*

RESPONSE: Maintenance requirements are noted.

**Section 74.730 Notice of Violation.**
*When the owner, lessee, occupant or person in charge of private grounds neglects or refuses to trim a tree, shrub or plant as provided in TDC 74.725, the City Manager must cause a written notice to trim such tree or trees, shrubs or plants to be served upon such owner, lessee, occupant or person in charge, within 10 days after the giving the notice; and if the owner, lessee or occupant or person in charge fails to do so, the person is guilty of violating this ordinance and subject to the penalties in TDC 74.760. The notice must be served upon the owner, lessee, occupant or person in charge either by "Certified Mail-Return Receipt Requested", or by posting the same notice on the property or near to the trees, shrubs or plants to be trimmed.*

RESPONSE: Notice of Violation process is noted.

**Section 74.735 Trimming by City.**
*If the owner, lessee, occupant or person in charge of the property fails and neglects to trim the trees, shrubs or plants within 10 days after service of the notice in TDC 74.730, the City Manager may trim the trees, shrubs or plants. Such trimming by the City does not act to relieve such owner, lessee, occupant or person in charge of responsibility for violating this Chapter.*

RESPONSE: City's right to trim trees is acknowledged.

**Section 74.740 Prohibited Trees.**

*It is unlawful for a person to plant a tree within the right-of-way of the City of Tualatin that is not in conformance with City standards, including Table 74-1. Any tree planted subsequent to adoption of this Chapter not in compliance with City standards, including Table 74-1, must be removed at the expense of the property owner.*

RESPONSE: City's right to trim trees is acknowledged.

**Section 74.750 Removal or Treatment by City.**
The City Manager may remove or cause or order to be removed a tree, plant or shrub, planted or growing in or upon a public right-of-way which by its nature causes an unsafe condition or is injurious to sewers or public improvements, or is affected with an injurious fungus disease, insect or other pest. When, in the opinion of the City Manager, trimming or treatment of a tree or shrub located on private grounds, but having branches extending over a public right-of-way is necessary, the City Manager may trim or treat such a branch or branches, or cause or order branches to be trimmed or treated.

RESPONSE: City's right to tree removal and treatment is acknowledged.

**Section 74.755 Appeal of Permit Denial.**
*When application for a permit under this Chapter is denied by the City Manager, an order is issued by the City Manager directing certain trees, shrubs or plants to be trimmed or removed, or a permit is granted by the City Manager containing conditions which the applicant deems unreasonable, the applicant may appeal to the Council in writing and filed with the City Recorder within 10 City business days after the denial of the permit sought or the making of the order the appellant deems unreasonable. After hearing, the Council may either grant or deny the application, rescind or modify the order from which the appeal was taken.*

RESPONSE: Appeal process is noted.

**Section 74.760 Penalties.**
*A person who violates this ordinance or fails to trim a tree or shrub for which notice to do so was provided, must, upon conviction, be fined not more than $100.00.*

RESPONSE: Penalties are noted.

**Section 74.765 Street Tree Species and Planting Locations.**
*All trees, plants or shrubs planted in the right-of-way of the City must conform in species and location and in accordance with the street tree plan and City standards, including Table 74-1. If the City Manager determines that none of the species in City standards, including Table 74-1 is appropriate or finds appropriate a species not listed, the City Manager may substitute an unlisted species.*

RESPONSE: Street tree species and locations will be submitted as part of the Public Works Permit application. The proposed street trees will conform with the City standards in Table 74-1. Any proposed tree species substitutions will be submitted for approval during the Public Works Permit process.

**TDC CHAPTER 75: Access Management**
**Section 75.040 Driveway Approach Requirements.**
*(1) The provision and maintenance of driveway approaches from private property to the public streets as stipulated in this Code are continuing requirements for the use of any structure or parcel of real property in the City of Tualatin. No building or other permit may be issued until scale plans are presented that show how the driveway approach requirement is to be fulfilled. If the owner or occupant of a lot or building changes the use to which the lot or building is put, thereby increasing driveway approach requirements, it is unlawful and a violation of this code to begin or maintain such altered use until the required increase in driveway approach is authorized by the City.*

RESPONSE: The applicant acknowledges these requirements. The applicant plans to take access off a portion of SW Blake Street which will be constructed by the project. The large majority of traffic to the site will be required to use the primary access. A secondary access for emergency vehicles and large, non-regular truck deliveries is proposed from SW 120th Avenue.

*(2) Owners of two or more uses, structures, or parcels of land may agree to utilize jointly the same driveway approach when the combined driveway approach of both uses, structures, or parcels of land satisfies their combined requirements as designated in this code; provided that satisfactory legal evidence is presented to the City Attorney in the form of deeds, easements, leases or contracts to establish joint use. Copies of said deeds, easements, leases or contracts must be placed on permanent file with the City Recorder.*

RESPONSE: The applicant is not proposing a combined driveway approach but acknowledges that access to Tax Lot 701 may be problematic pending redevelopment of that parcel. Tax Lot 701, which is in unincorporated Washington County, currently has a curb cut on SW Tualatin Sherwood Road and does not have frontage on any other public streets.

*(3) Joint and Cross Access.*

*(a) Adjacent commercial uses may be required to provide cross access drive and pedestrian access to allow circulation between sites.*

*(b) A system of joint use driveways and cross access easements may be required and may incorporate the following:*

*(i) A continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway separation consistent with the access management classification system and standards;*

*(ii) A design speed of 10 mph and a maximum width of 24 feet to accommodate two-way travel aisles designated to accommodate automobiles, service vehicles, and loading vehicles;*

*(iii) Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross access via a service drive; and*

*(iv) An unified access and circulation system plan for coordinated or shared parking areas.*

*(c) Pursuant to this section, property owners may be required to:*

*(i) Record an easement with the deed allowing cross access to and from other properties served by the joint use driveways and cross access or service drive;*

*(ii) Record an agreement with the deed that remaining access rights along the roadway will be dedicated to the city and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;*

*(iii) Record a joint maintenance agreement with the deed defining maintenance responsibilities of property owners; and*

*(iv) If subsection(i) through (iii) above involve access to the state highway system or county road system, ODOT or the county must be contacted and must approve changes to subsection(i) through (iii) above prior to any changes.*

RESPONSE: The applicant acknowledges these requirements.

*(4) Requirements for Development on Less than the Entire Site.*

*(a) To promote unified access and circulation systems, lots and parcels under the same ownership or consolidated for the purposes of development and comprised of more than one building site must be reviewed as one unit in relation to the access standards. The number of access points permitted must be the minimum number necessary to provide reasonable access to these properties, not the maximum available for that frontage. All necessary easements, agreements, and stipulations must be met. This must also apply to phased development plans. The owner and all lessees within the affected area must comply with the access requirements.*

*(b) All access must be internalized using the shared circulation system of the principal commercial development or retail center. Driveways should be designed to avoid queuing across surrounding parking and driving aisles.*

RESPONSE: The applicant acknowledges these requirements.

*(5) Lots that front on more than one street may be required to locate motor vehicle accesses on the street with the lower functional classification as determined by the City Manager.*

RESPONSE: Primary site access is proposed from SW Blake Street and secondary site access is proposed from SW 120th Avenue.

*(6) Except as provided in TDC 53.100, all driveway approach must connect directly with public streets.*

RESPONSE: All driveways will connect directly with public streets.

*(7) To afford safe pedestrian access and egress for properties within the City, a sidewalk must be constructed along all street frontage, prior to use or occupancy of the building or structure proposed for said property. The sidewalks required by this section must be constructed to City standards, except in the case of streets with inadequate right-of-way width or where the final street design and grade have not been established, in which case the sidewalks must be constructed to a design and in a manner approved by the City Manager. Sidewalks approved by the City Manager may include temporary sidewalks and sidewalks constructed on private property; provided, however, that such sidewalks must provide continuity with sidewalks of adjoining commercial developments existing or proposed. When a sidewalk is to adjoin a future street improvement, the sidewalk construction must include construction of the curb and gutter section to grades and alignment established by the City Manager.*

RESPONSE: The applicant acknowledges these requirements. With the potential phasing of the SW 124th Avenue an agreement may be required that allows completion of the public sidewalk on SW 124th after occupancy to the building.

*(8) The standards set forth in this Code are minimum standards for driveway approaches, and may be increased through the Architectural Review process in any particular instance where the standards provided herein are deemed insufficient to protect the public health, safety, and general welfare.*

RESPONSE: The applicant does not anticipate the need to increase the minimum standards for driveway approaches.

*(9) Minimum driveway approach width for uses are as provided in Table 75-1 (Driveway Approach Width):*

RESPONSE: The applicant acknowledges the requirement to provide two approaches with a minimum width of 32 feet for the development.

*(10) Driveway Approach Separation. There must be a minimum distance of 40 feet between any two adjacent driveways on a single property unless a lesser distance is approved by the City Manager.*

RESPONSE: The project will comply with this requirement.

*(11) Distance between Driveways and Intersections. Except for single-family dwellings, the minimum distance between driveways and intersections must be as provided below. Distances listed must be measured from the stop bar at the intersection.*

> *(a) At the intersection of collector or arterial streets, driveways must be located a minimum of 150 feet from the intersection.*

*(b) At the intersection of two local streets, driveways must be located a minimum of 30 feet from the intersection.*

*(c) If the subject property is not of sufficient width to allow for the separation between driveway and intersection as provided, the driveway must be constructed as far from the intersection as possible, while still maintaining the 5-foot setback between the driveway and property line as required by TDC 73.400(14)(b).*

*(d) When considering a driveway approach permit, the City Manager may approve the location of a driveway closer than 150 feet from the intersection of collector or arterial streets, based on written findings of fact in support of the decision.*

RESPONSE: The project will comply the driveway spacing requirements. No driveways are proposed closer than 150 from the intersection of collector or arterial streets.

*(12) Vision Clearance Area.*

*(a) Local Streets. A vision clearance area for all local street intersections, local street and driveway intersections, and local street or driveway and railroad intersections must be that triangular area formed by the right-of-way lines along such lots and a straight line joining the right-of-way lines at points which are 10 feet from the intersection point of the right-of-way lines, as measured along such lines (see Figure 73-2 for illustration).*

*(b) Collector Streets. A vision clearance area for all collector/arterial street intersections, collector/arterial street and local street intersections, and collector/arterial street and railroad intersections must be that triangular area formed by the right-of-way lines along such lots and a straight line joining the right-of-way lines at points which are 25 feet from the intersection point of the right-of-way lines, as measured along such lines. Where a driveway intersects with a collector/arterial street, the distance measured along the driveway line for the triangular area must be 10 feet (see Figure 73-2 for illustration).*

*(c) Vertical Height Restriction. Except for items associated with utilities or publicly owned structures such as poles and signs and existing street trees, no vehicular parking, hedge, planting, fence, wall structure, or temporary or permanent physical obstruction must be permitted between 30 inches and 8 feet above the established height of the curb in the clear vision area (see Figure 73-2 for illustration).*

RESPONSE: The applicant acknowledges and will comply with the vision clearance requirements.

**Section 75.050 Access Limited Roadways.**

*(1) This section applies to all developments, permit approvals, land use approvals, partitions, subdivisions, or any other actions taken by the City pertaining to property abutting any road or street*

*listed in TDC 75.050(2). In addition, any property not abutted by a road or street listed in subsection (2), but having access to an arterial by any easement or prescriptive right, must be treated as if the property did abut the arterial and this Chapter applies.*

*(2) The following Freeways and Arterials are access limited roadways:*

*(d) Tualatin-Sherwood Road at all points located within the City of Tualatin Planning Area;*

*(f) 124th Avenue from Pacific Highway 99W south to Tonquin;*

*If the Council finds that any other road or street is in need of access control for any reason, it may direct that the street or road be added to this section through a Plan Text Amendment.*

RESPONSE: The project does not propose to take direct access off of SW Tualatin Sherwood Road or SW 124th Avenue. The existing access points from SW Tualatin Sherwood Road to the existing residential and farm buildings will be removed. A maintenance only access may be required from SW 124th Avenue to the potential public stormwater pond located at the southeast corner of SW Tualatin Sherwood Road and SW 124th Avenue.

*(3) This Chapter takes precedence over any other TDC chapter and over any other ordinance of the City when considering any development, land use approval or other proposal for property abutting an arterial or any property having an access right to an arterial.*

*(4) The City may act on its own initiative to protect the public safety and control access on arterials or any street to be included by TDC 75.030, consistent with its authority as the City Road Authority.*

**Section 75.100 Spacing Standards for New Intersections.**
*Except as shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3), all new intersections with arterials must have a minimum spacing of one-half mile between intersections.*

RESPONSE: The location of the 124th Avenue and SW Blake Street intersection was dictated to the applicant by Washington County Land Use and Transportation. The general location is shown on Figure 11-1.

**Section 75.110 Joint Access Standards.**
*When the City Manager determines that joint accesses are required by properties undergoing development or redevelopment, an overall access plan shall be prescribed by the City Manager and all properties shall adhere to this. Interim accesses may be allowed in accordance with TDC 75.060 of this chapter to provide for the eventual implementation of the overall access plan.*

RESPONSE: The applicant plans on consolidating the two tax lots that the development is on and therefore a joint access will not be required.

**Section 75.120 Collector Streets Access Standards.**

*(1) Major Collectors. Direct access from newly constructed single family homes, duplexes or triplexes are not permitted. As major collectors in residential areas are fully improved, or adjacent land redevelops, direct access should be relocated to the nearest local street where feasible.*

*(2) Minor Collectors. Residential, commercial and industrial driveways where the frontage is greater or equal to 70 feet are permitted. Minimum spacing at 100 feet. Uses with less than 50 feet of frontage shall use a common (joint) access where available.*

*(3) If access is not able to be relocated to the nearest local street, the City Manager may allow interim access in accordance with 75.060 of this chapter to provide for the eventual implementation of the overall access plan.*

RESPONSE: The project proposed a primary access of SW Blake Street with is identified as a Minor Collector in the TSP. Any future development on the land southwest of SW Blake Street will need to meet access requirements outlined in this section.

**Section 75.130 New Streets Access Standards.**
*(1) New streets designed to serve as alternatives to direct, parcel by parcel, access onto arterials are shown in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3). These streets are shown as corridors with the exact location determined through the partition, subdivision, public works permit or Architectural Review process. Unless modified by the City Council by the procedure set out below, these streets will be the only new intersections with arterials in the City. See map for changes*

*(2) Specific alignment of a new street may be altered by the City Manager upon finding that the street, in the proposed alignment, will carry out the objectives of this chapter to the same, or a greater degree as the described alignment, that access to adjacent and nearby properties is as adequately maintained and that the revised alignment will result in a segment of the Tualatin road system which is reasonable and logical.*

*(3) The City Council may include additional streets in TDC Chapter 11, Transportation, (Figures 11-1 and 11-3), through the plan amendment procedure. In addition to other required findings, the City Council must find that the addition is necessary to implement the objectives of this chapter.*

RESPONSE: The location of the 124th/Blake intersection was determined and set approximately 1,100 feet south of SW Tualatin-Sherwood Road by Washington County in conjunction with planning efforts associated with the Willamette Water Supply Program (WWSP) treatment plant project.
The development is proposing to extend SW Blake Street east as necessary to accommodate necessary radii and queuing and then southerly, paralleling SW 124th Avenue to southerly property line where it will turn east again and run parallel with the southerly property line to the eastern property line in alignment with the location identified in the TDC Chapter 11, Transportation Figure 11-1.

Figure 11-1 shows SW 120th splitting South of SW Itel. South of SW Itel two streets would run south to SW Blake Street. The two streets were envisioned to support a high-density mixed-use development

area. The westerly street would cut through the PGE site and the easterly street would run adjacent to Itel Commerce Park. The mixed-used development would sit between the two streets.

With the development of the PGE IOC, the high-density mixed-use development west of the water bodies will not be constructed. Due to this, dual north south connections between Itel and Blake are no longer required. We believe the easterly north-south connection provides the best benefit for future development and the best chance for eventual construction and that the westerly north south connection is not required. Additional items supporting the elimination of the western leg include:

- The easterly connection avoids conflicts with ponds east of the proposed site that are on the National Wetland Inventory.
- The easterly connection avoids topographic constraints associated with the west leg along the east property line.
- The easterly connection avoids delineated wetlands at the southeast corner of the PGE site.

The easterly connection provides better potential access to the flag portion of the quarry site as the westerly connection would need to cross the mapped wetlands

**Section 75.140 Existing Streets Acccess Standards.**
*The following list describes in detail the freeways and arterials as defined in TDC 75.030 with respect to access. Recommendations are made for future changes in accesses and location of future accesses. These recommendations are examples of possible solutions and shall not be construed as limiting the City' s authority to change or impose different conditions if additional studies result in different recommendations from those listed below.*

*(4) TUALATIN-SHERWOOD ROAD*

*(e) Avery Street/112th to Cipole Road. On the north side of Tualatin-Sherwood Road between 112th Avenue and Cipole Road the area will be served by the following streets or driveways:*

*(i) 115th Avenue which will extend north to Amu Street.*

*(ii) 124th Avenue which will extend north and west to an intersection at 124th Avenue approximately 800 feet north of Tualatin-Sherwood Road.*

*(iii) 124th Avenue.*

*(iv) Cipole Road. The exact location and configuration of the streets or driveways shall be determined by the City Manager.*

*(v) On the south side of Tualatin-Sherwood Road between Avery Street and 120th Avenue the area will be served by the following street system:*

*(A) 115th Avenue.*

*(B) 120th Avenue, which may be restricted to right-in, right-out movements in the future.*

*The exact location and configuration of the streets shall be determined by the City Manager . No driveways will be constructed in this area and existing driveways will be removed. Tax Lot 2S127B 800 (Select Sales) shall have a cross access to 115th Avenue.*

RESPONSE: The project will comply with the access standards outlined for SW Tualatin Sherwood Road.

*(6) 124TH AVENUE*

*(d) Tualatin-Sherwood Road. Between Tualatin-Sherwood Road and Tonquin Road access to 124th Avenue shall be limited to street intersections at Blake Street and the unnamed east-west collector street. Depending on when this segment of 124th Avenue is constructed a (possibly interim) connection to Tonquin Road may also be provided.*

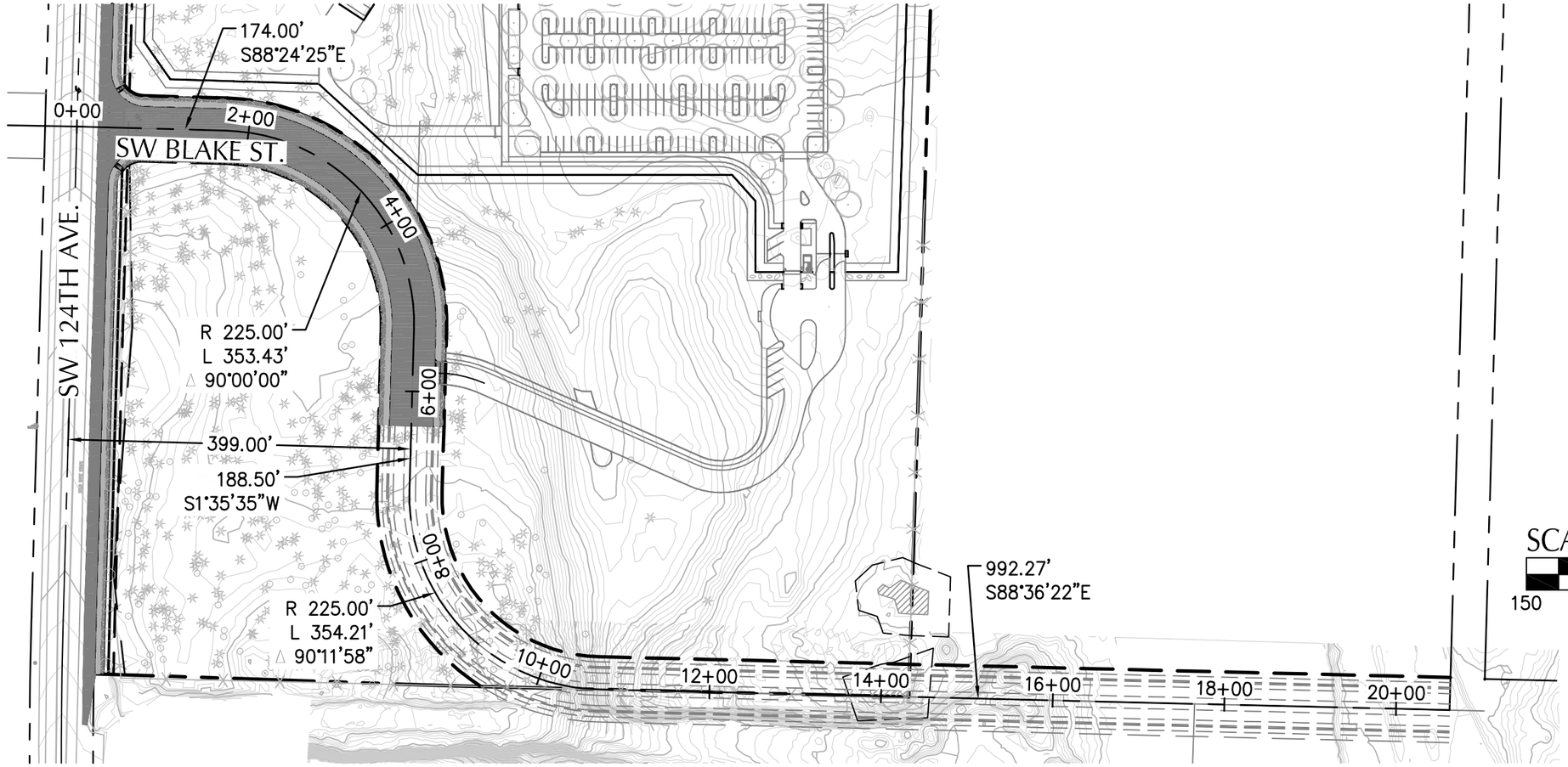
RESPONSE: The project will comply with the access standards outlined for SW 124th Avenue.

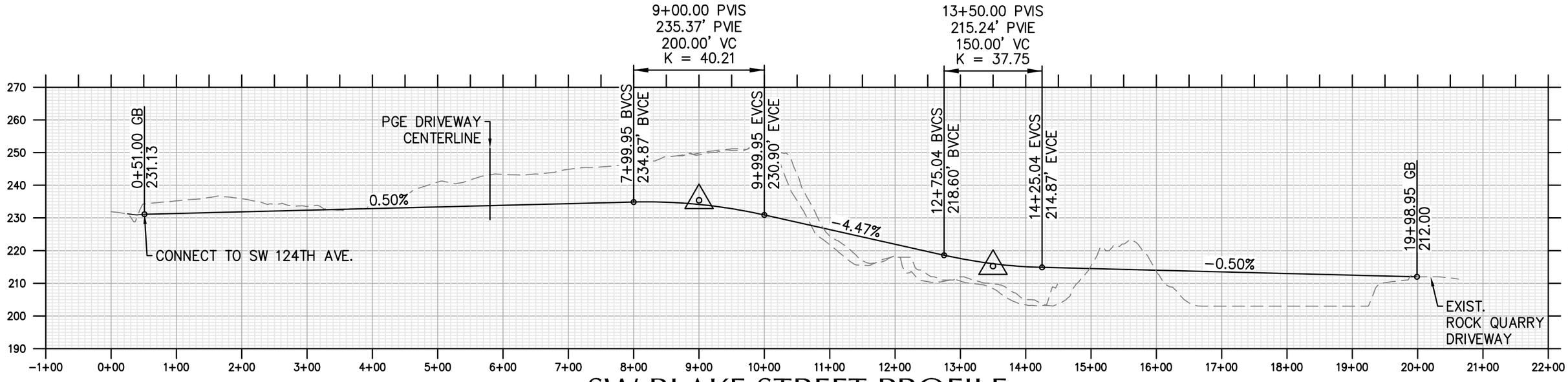
Sincerely,
KPFF Consulting Engineers

Mark Reuland, PE
Associate

*Attachments: Exhibit A*

*1800045-pm*




# SW BLAKE STREET PROFILE

SCALE: HORIZ: 1" = 150'
VERT: 1" = 30'