



City of Tualatin

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September 14, 2017

CITY ENGINEER'S REVIEW FINDING AND DECISION FOR AR17-0003, LEVETON INDUSTRIAL

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I. RECOMMENDATION

Based on the FINDINGS presented, the City Engineer approves the preliminary plans of AR17-0003, Leveton Industrial with the following conditions:

A. PRIOR TO ISSUANCE OF EROSION CONTROL, PUBLIC WORKS, AND WATER QUALITY PERMITS

- PFR-1 Submit final sanitary sewer plans that show location of the lines, grade, materials, and other details and the site connecting to the existing sanitary sewer lateral with a clean out at the edge of right-of-way.
- PFR-2 The applicant will submit water system plans that show location of the water lines, grade, materials, and other details including public water and access easements from SW Leveton Drive to and including the fire vault if located outside of right-of-way and determination of fire flow requirements for the building. The private FDC at the northwest corner of the development will be located outside of public right-of-way.
- PFR-3 Submit final stormwater and water quality plans and associated calculations, including adequate treatment and detention.
- PFR-4 Obtain a NPDES Erosion Control Permit and a City of Tualatin erosion control permit in accordance with code section TMC 3-5-060.
- PFR-5 Submit plans that comply with fire protection requirements as determined through the Building Division and Tualatin Valley Fire & Rescue (TVF&R).
- PFR-6 Submit plans that are sufficient to obtain a Stormwater Connection Permit Authorization Letter that complies with the submitted Service Provider Letter conditions and obtain an Amended Service Provider Letter as determined by Clean Water Services for any revisions to the proposed plans.
- PFR-7 All trees, plants or shrubs planted in the right-of-way of the City will conform in species and location and in accordance with the street tree plan.
- PFR-8 Submit PDFs of final site and permit plans.

B. PRIOR TO ISSUANCE OF BUILDING PERMITS

- PFR-9 Obtain Erosion Control, Public Works, and Water Quality Permits.

C. PRIOR TO A CERTIFICATE OF OCCUPANCY

- PFR-10 The applicant shall complete all private and public improvements plus record the public water line and access easement if the fire vault is located out of right-of-way.

II. APPEAL

Requests for review of this decision must be received by the Engineering Division within the 14-day appeal period ending on **September 28, 2017 at 5 PM**. Issues must have been described with adequate clarity and detail with identification of the associated Tualatin Municipal or Development Code section to afford a decision maker an opportunity to respond to the issue. A request for review must be submitted on the form provided by the City, as detailed in TDC 31.076, and signed by the appellant.

Typed on behalf of the City Engineer, Jeff Fuchs, PE,

A handwritten signature in blue ink, appearing to read "Tony Doran", is written over a light blue circular stamp.

Tony Doran, EIT
Engineering Associate

III. STANDARDS AND APPLICABLE CRITERIA

Tualatin Municipal Code (TMC)

Title 03: Utilities and Water Quality

Title 04: Building

Tualatin Development Code (TDC)

Chapter 73: Community Design Standards

Chapter 74: Public Improvement Requirements

The record includes all submitted materials that may be requested for viewing at the Planning Counter.

IV. CONCLUSIONS

A. TMC CHAPTER 03-02: SEWER REGULATIONS; RATES

1. TMC 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. TMC 3-2-030 MATERIALS 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.**
- (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.**

3. TMC 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.

FINDING:

A permit will be made to allow connection to the City's sanitary sewer system.

A sanitary sewer service lateral was installed to the site as a part of the Leveton Common No. 2 subdivision. Extension of that sewer lateral to the City will be done performed under Oregon State Plumbing Laws.

The plans show a cleanout approximately 14 feet from the edge of right-of-way for City maintenance. Revised plans will show a cleanout at the edge of right-of-way.

The applicant will submit sanitary sewer plans that show location of the lines, grade, materials, and other details prior to obtaining a Building Permit.

This criterion is satisfied with conditions of approval PFR-1, -9, and -10.

B. TMC CHAPTER 03-03: WATER SERVICE

1. TMC 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. TMC 3-3-100 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.

3. TMC 3-3-110 BACKFLOW PREVENTION DEVICES AND CROSS CONNECTIONS.

- (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:
- (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.

4. TMC 3-3-130 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.

FINDING:

The proposed industrial site development will be a single building at this time a single City meter is proposed, with the possibility that private sub-metering will be done at the building.

A separate fire line will be required to meet Fire Code requirements and the installation of an acceptable backflow device per State and City requirements will be installed.

At this time it is not anticipated that a meter larger than 2 inch will be needed.

As an 8-inch water line has been installed by the developer of the Leveton Commons No. 2 subdivision, to the parcel it is anticipated that no public water extension will be required.

A backflow appropriate for the domestic water use inside the building and a double check backflow device for the fire line service will be installed accordingly.

A control valve will be installed on the building side of the domestic water meter.

The plans show a double check for the fire line approximately 15 feet from right-of-way. The City needs access to the double checks that include fire vaults. If they are located out of right-of-way, a public easement is needed for the water line from the public water line to and including the fire vault and include access from right-of-way in case of inspection or maintenance activity.

A private FDC is proposed within SW Leveton Drive near the northwest corner of the site. This private FDC will be located on private property, not within public right-of-way.

The applicant will submit water system plans that show location of the water lines, grade, materials, and other details including public water and access easements from SW Leveton Drive to and including the fire vault if located outside of right-of-way and determination of fire flow requirements for the building.

This criterion is satisfied with conditions of approval PFR-2, -9, and -10.

C. TMC 3-5 ADDITIONAL SURFACE WATER MANAGEMENT STANDARDS

1. TMC 3-5-010 POLICY.

It is the policy of the City to require temporary and permanent measures for all construction projects to lessen the adverse effects of construction on the environment. The contractor shall properly install, operate and maintain both temporary and permanent works as provided in this chapter or in an approved plan, to protect the environment during the term of the project. In addition, these erosion control rules apply to all properties within the City, regardless of whether that property is involved in a construction or development activity. Nothing in this chapter shall relieve any person from the obligation to comply with the regulations or permits of any federal, state, or local authority...

2. TMC 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...**

3. TMC 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, prepared by an Oregon registered professional 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.

FINDING:

Erosion and Sediment Control measures will be a part of the construction documents and construction management of the site.

Proper permitting for a 1200-CN permit as required will be obtain prior to site work beginning on the site.

The required EC permit, a 1200-CN permit will be applied for meeting the specific requirements for submitting.

The site is approximately 2.21 acres. A site specific plan, prepared by the project civil engineer, to control erosion during the construction of the proposed improvements and will be submitted with the permit application. A DEQ 1200-CN Erosion and Sedimentation Permit is required.

The applicant will submit an erosion control plan prior to application for an erosion control permit and obtain a 1200-CN permit.

This criterion is satisfied with conditions of approval PFR-4, -9, and -10.

4. TMC 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: Construction of permanent on-site stormwater quantity detention facilities designed in accordance with this title;...

5. TMC 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.

6. TMC 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...

FINDING:

The on-site detention is required because the City's stormwater master planning requires on-site detention at this location and is designed so that the run-off rates will not exceed predevelopment based on a 25-year, 24-hour return storm. Preliminary stormwater calculations are included with the Architectural Review application.

On-site stormwater quantity detention facilities will be a part of the design of the improvements. As there are no known downstream deficiencies run-off rates through the 25 year event will be matched via on-site detention facilities.

The applicant will submit final stormwater calculations and plans.

This criterion is satisfied with conditions of approval PFR-3, -9, and -10.

D. TMC 3-5 PERMANENT ON-SITE WATER QUALITY FACILITIES

1. TMC 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.

FINDING:

The site's existing and proposed water quality facilities are not located in wetlands or associated buffers.

This criterion is satisfied.

2. TMC 3-5-290 PURPOSE OF TITLE

The purpose of this title is to require new development and other activities which create impervious surfaces to construct or fund on-site or off-site permanent water quality facilities to reduce the amount of phosphorous entering the storm and surface water system.

3. TMC 3-5-300 APPLICATION OF TITLE

Title III of this Chapter shall apply to all activities which create new or additional impervious surfaces, except as provided in TMC 3-5.310.

4. TMC 3-5-310 EXCEPTIONS

- (1) Those developments with application dates prior to July 1, 1990, are exempt from the requirements of Title III.
The application date shall be defined as the date on which a complete application for development approval is accepted by the City in accordance with City regulations.
- (2) Construction of one and two family (duplex) dwellings are exempt from the requirements of Title III.
- (3) Sewer lines, water lines, utilities or other land development that will not directly increase the amount of storm water run-off or pollution leaving the site once construction has been completed and the site is either restored to or not altered from its approximate original condition are exempt from the requirements of Title III.

5. TMC 3-5-320 DEFINITIONS

- (1) "Stormwater Quality Control Facility" refers to any structure or drainage way that is designed, constructed and maintained to collect and filter, retain, or detain surface water run-off during and after a storm event for the purpose of water quality improvement. It may also include, but is not limited to, existing features such as constructed wetlands, water quality swales, low impact development approaches ("LIDA"), and ponds which are maintained as stormwater quality control facilities.
- (2) "Low impact development approaches" or "LIDA: means stormwater facilities constructed utilizing low impact development approaches used to temporarily store, route or filter run-off for the purpose of improving water quality. Examples include; but are not limited to, Porous Pavement, Green Roofs, Infiltration Planters/Rain Gardens, Flow-Through Planters, LIDA Swales, Vegetated Filter Strips, Vegetated Swales, Extended Dry Basins, Constructed Water Quality Wetland, Conveyance and Stormwater Art, and Planting Design and Habitats.
- (3) "Water Quality Swale" means a vegetated natural depression, wide shallow ditch, or constructed facility used to temporarily store, route or filter run-off for the purpose of improving water quality.
- (4) "Existing Wetlands" means those areas identified and delineated as set forth in the Federal Manual for Identifying the Delineating Jurisdictional Wetlands, January, 1989, or as amended, by a qualified wetlands specialist.

- (5) "Created Wetlands" means those wetlands developed in an area previously identified as a non-wetland to replace, or mitigate wetland destruction or displacement.
- (6) "Constructed Wetlands" means those wetlands developed as a water quality or quantity facility, subject to change and maintenance as such. These areas must be clearly defined and/or separated from existing or created wetlands. This separation shall preclude a free and open connection to such other wetlands.

6. TMC 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.

7. TMC 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.

8. TMC 3-5-345 INSPECTION REPORTS

The property owner or person in control of the property shall submit inspection reports annually to the City for the purpose of ensuring maintenance activities occur according to the operation and maintenance plan submitted for an approved permit or architectural review.

9. TMC 3-5-350 PHOSPHOROUS REMOVAL STANDARD

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.

10. TMC 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.

11. TMC 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.

12. TMC 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.

13. TMC 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.

14. TMC 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.

FINDING:

Stormwater quality control facilities will be a part of the site improvements. Preliminary stormwater calculations are included with the Architectural Review application that show adequate treatment.

The applicant will submit final stormwater calculations and plans.

This criterion is satisfied with conditions of approval PFR-3, -9, and -10.

15. TMC 4-1-030 GRADING

A person seeking a grading permit must submit a soil report with the permit application. The soils report submitted must be signed and sealed by an Oregon-certified soils engineer and comply with Appendix J of the Oregon Structural Specialty Code, 2014 edition. No grading activities may occur unless and until a person receives a grading permit and complies with this section.

FINDING:

Erosion and Sediment Control measures will be a part of the construction documents and construction management of the site.

Proper permitting for a 1200-CN permit as required will be obtain prior to site work beginning on the site.

The required EC permit, a 1200-CN permit will be applied for meeting the specific requirements for submitting.

The site is approximately 2.21 acres. A site specific plan, prepared by the project civil engineer, to control erosion during the construction of the proposed improvements and will be submitted with the permit application. A DEQ 1200-CN Erosion and Sedimentation Permit is required.

The applicant will submit an erosion control plan prior to application for an erosion control permit and obtain a 1200-CN permit.

This criterion is satisfied with conditions of approval PFR-4, -9, and -10.

16. TMC 4-2.010 FIRE AND LIFE SAFETY

- (1) Every application for a building permit and accompanying plans shall be submitted to the Building Division for review of water used for fire protection, the approximate location and size of hydrants to be connected, and the provisions for access and egress for firefighting equipment. If upon such review it is determined that the fire protection facilities are not required or that they are adequately provided for in the plans, the Fire and Life Safety Reviewer shall recommend approval to the City Building Official.**

FINDING:

There are two existing public fire hydrants near the northwest and northeast corners of the site and a fire line connecting to the building. The applicant will submit plans that comply with fire protection requirements as determined through the Building Division and Tualatin Valley Fire & Rescue (TVF&R).

The applicant will submit final plans that comply with fire protection requirements as determined through the Building Division and Tualatin Valley Fire & Rescue (TVF&R).

This criterion is satisfied with conditions of approval PFR-5 and -10.

E. TDC CHAPTER 73: COMMUNITY DESIGN STANDARDS

1. TDC SECTION 73.270 GRADING

- (1) After completion of site grading, top-soil is to be restored to exposed cut and fill areas to provide a suitable base for seeding and planting.**
- (2) All planting areas shall be graded to provide positive drainage.**
- (3) Neither soil, water, plant materials nor mulching materials shall be allowed to wash across roadways or walkways.**
- (4) Impervious surface drainage shall be directed away from pedestrian walkways, dwelling units, buildings, outdoor private and shared areas and landscape areas except where the landscape area is a water quality facility.**

FINDINGS:

Erosion and Sediment Control measures will be a part of the construction documents and construction management of the site.

Proper permitting for a 1200-CN permit as required will be obtain prior to site work beginning on the site.

The required EC permit, a 1200-CN permit will be applied for meeting the specific requirements for submitting.

The site is approximately 2.21 acres. A site specific plan, prepared by the project civil engineer, to control erosion during the construction of the proposed improvements and will be submitted with the permit application. A DEQ 1200-CN Erosion and Sedimentation Permit is required.

The applicant will submit an erosion control plan prior to application for an erosion control permit and obtain a 1200-CN permit.

This criterion is satisfied with conditions of approval PFR-4, -9 and -10.

2. TDC SECTION 73.400 ACCESS

- (2) Owners of two or more uses, structures, or parcels of land may agree to utilize jointly the same ingress and egress when the combined ingress and egress 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 shall be placed on permanent file with the City Recorder.**
- (3) Joint and Cross Access.**
 - (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;**
 - (iv) a 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;
- (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 Engineer.
- (6) Except as provided in TDC 53.100, all ingress and egress shall connect directly with public streets.
- (8) To afford safe pedestrian access and egress for properties within the City, a sidewalk shall 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 shall 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 shall be constructed to a design and in a manner approved by the City Engineer. Sidewalks approved by the City Engineer may include temporary sidewalks and sidewalks constructed on private property; provided, however, that such sidewalks shall provide continuity with sidewalks of adjoining commercial developments existing or proposed. When a sidewalk is to adjoin a future street improvement, the sidewalk construction shall include construction of the curb and gutter section to grades and alignment established by the City Engineer.
- (9) The standards set forth in this Code are minimum standards for access and egress, 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.
- (10) Minimum access requirements for residential uses:
 - (a) Ingress and egress for single-family residential uses, including townhouses, shall be paved to a minimum width of 10 feet. Maximum driveway widths shall not exceed 26 feet for one and two car garages, and 37 feet for three or more car garages. For the purposes of this section, driveway widths shall be measured at the property line....
- (11) Minimum Access Requirements for Commercial, Public and Semi-Public Uses.
...In all other cases, ingress and egress for commercial uses shall 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' thereafter	Curbs required; walkway 1 side only
100-249	2	32 feet for first 50 feet from ROW, 24' thereafter	Curbs required; walkway 1 side only
Over 250	As required by City Engineer	As required by City Engineer	As required by City Engineer

- (12) **Minimum Access Requirements for Industrial Uses.** Ingress and egress for industrial uses shall not be less than the following:

Required Parking Spaces	Minimum Number Required	Minimum Pavement Width	Minimum Pavement Walkways, Etc.
1-250	1	36 feet for first 50' from ROW, 24' thereafter	No curbs or walkway required
Over 250	As required by City Engineer	As required by City Engineer	As required by City Engineer

- (13) **One-way Ingress or Egress.**

When approved through the Architectural Review process, one-way ingress or egress may be used to satisfy the requirements of Subsections (7), (8), and (9). However, the hard surfaced pavement of one-way drives shall not be less than 16 feet for multi-family residential, commercial, or industrial uses.

- (14) **Maximum Driveway Widths and Other Requirements.**

- Unless otherwise provided in this chapter, maximum driveway widths shall not exceed 40 feet.
- Except for townhouse lots, no driveways shall be constructed within 5 feet of an adjacent property line, except when two adjacent property owners elect to provide joint access to their respective properties, as provided by Subsection (2).
- There shall 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 Engineer.

(15) Distance between Driveways and Intersections.

Except for single-family dwellings, the minimum distance between driveways and intersections shall be as provided below. Distances listed shall be measured from the stop bar at the intersection.

- (a) At the intersection of collector or arterial streets, driveways shall be located a minimum of 150 feet from the intersection.
- (b) At the intersection of two local streets, driveways shall 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 shall 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 public facilities plan that has been submitted as part of an Architectural Review plan in accordance with TDC 31.071(6), the City Engineer may approve the location of a driveway closer than 150 feet from the intersection of collector or arterial streets, based on written FINDING of fact in support of the decision. The written approval shall be incorporated into the decision of the City Engineer for the utility facilities portion of the Architectural Review plan under the process set forth in TDC 31.071 through 31.077.

FINDINGS:

The applicant submitted a traffic study from Lancaster Engineering that concludes all accesses are adequate and no mitigation is needed.

The driveways on the site meet the driveway width and separation standards from nearby intersections and on the lot itself.

This criterion is satisfied.

F. TDC CHAPTER 74: PUBLIC IMPROVEMENT REQUIREMENTS

1. SECTION 74.110 PHASING OF IMPROVEMENTS

The applicant may build the development in phases. If the development is to be phased the applicant shall submit a phasing plan to the City Engineer for approval with the development application. The timing and extent or scope of public improvements and the conditions of development shall be determined by the City Council on subdivision applications and by the City Engineer on other development applications.

2. TDC SECTION 74.120 PUBLIC IMPROVEMENTS

- (1) Except as specially provided, all public improvements shall be installed at the expense of the applicant. All public improvements installed by the applicant shall be constructed and guaranteed as to workmanship and material as required by the Public Works Construction Code prior to acceptance by the City. No work shall be undertaken on any public improvement until after the construction plans have been approved by the City Engineer and a Public Works Permit issued and the required fees paid.

FINDINGS:

The street from curb to curb was fully developed at the time of the Leveton Commons No. 2 in 2005. Full right-of-way width was also dedicated at that time as well. What exists matches the standard for a Connector street per Tualatin's standard, except the sidewalk along the frontage has not been developed. Public sidewalk and driveway improvements will be a part of the development improvements. No off-site improvements are expected to be required to due impacts of the proposed development.

No work will be undertaken until plans have been approved by the City Engineer, a Public Works Permit issued, and required fees paid, and all public improvements will be guaranteed as to workmanship and material per the Public Works Construction Code.

This criterion is satisfied with conditions of approval PFR-9 and -10.

3. TDC SECTION 74.140 CONSTRUCTION TIMING

- (1) All the public improvements required under this chapter shall 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 shall 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.**

FINDINGS:

It is noted that all required public improvements are to be completed and accepted by the City prior to Certificate of Occupancy issuance.

No work shall be undertaken on any public improvement until after approval has been granted and fees are paid. Prior to occupancy, all private and public improvements required under this chapter will be completed and accepted.

This criterion is satisfied with conditions of approval PFR-10.

4. TDC SECTION 74.210 MINIMUM STREET RIGHT-OF-WAY WIDTHS

The width of streets in feet shall 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 shall not be less than the minimums indicated in TDC Chapter 74, Public Improvement Requirements, Figures 74-2A through 74-2G.

- (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 shall 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 shall be for the full width of the property abutting the roadway and, if required by the City Engineer, additional dedications shall be provided for slope and utility easements if deemed necessary.**

- (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 shall be responsible for obtaining the necessary right-of-way from the property owner. A right-of-way dedication deed form shall be obtained from the City Engineer and upon completion returned to the City Engineer for acceptance by the City. On subdivision and partition plats the right-of-way dedication shall be accepted by the City prior to acceptance of the final plat by the City. On other development applications the right-of-way dedication shall 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 shall determine when condemnation proceedings are to be used.
- (4) If the City Engineer 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 Engineer 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 Engineer's recommendation shall 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.
- (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 shall be dedicated by the applicant. The dedication of right-of-way required in this subsection shall be along the route of the road as determined by the City.

FINDINGS:

The street from curb to curb was fully developed at the time of the Leveton Commons No. 2 in 2005. Full right-of-way width was also dedicated at that time as well. What exists matches the standard for a Connector street per Tualatin's standard, except the sidewalk along the frontage has not been developed. Public sidewalk and driveway improvements will be a part of the development improvements. No off-site improvements are expected to be required to due impacts of the proposed development.

Per the enclosed Transportation Impact Study, intersections and roadways in the vicinity will operate at or above minimum City standards, with or without the future road network and considering the proposed and surrounding development. Off-site street improvements requiring additional right-of-way to meet City standards is not necessary.

This criterion is satisfied.

5. 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 shall be granted to the City.
- (2) For subdivision and partition applications, the on-site public utility easement dedication area shall be shown to be dedicated to the City on the final subdivision or partition plat prior to approval of the plat by the City; and

- (3) For subdivision and partition applications which require off-site public utility easements to serve the proposed development, a utility easement shall be granted to the City prior to approval of the final plat 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 shall determine when condemnation proceedings are to be used.
- (4) For development applications other than subdivisions and partitions, and for both on-site and off-site easement areas, a utility easement shall be granted to the City; building permits shall 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 shall determine when condemnation proceedings are to be used.
- (5) The width of the public utility easement shall meet the requirements of the Public Works Construction Code. All subdivisions and partitions shall 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.

FINDINGS:

Utility easements for water, sanitary sewer, and storm drainage facilities, telephone, television cable, gas, electrical lines, and other public utilities will be granted to the City as needed. A 6-foot wide public utility easement has been granted along SW Leveton Drive as part of previous subdivision development.

The City needs access to the double checks that include fire vaults. If they are located out of right-of-way, public easements are needed for the water line from the public water line to and including the fire vault and include access from right-of-way to the double check in case of inspection or maintenance activity.

This criterion is satisfied with conditions of approval PFR-2 and -11.

6. TDC 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 shall be improved to standards as set out in the Public Works Construction Code.
- (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.
- (3) The required improvements may include the construction or rebuilding of off-site improvements which are identified to mitigate the impact of the development.
- (4) Where development abuts an existing street, the improvement required shall 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 Engineer 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 shall connect to the existing pavement at the ends of the section being improved by tapering in accordance with the Public Works Construction Code.

- (5) If additional improvements are required as part of the Access Management Plan of the City, TDC Chapter 75, the improvements shall be required in the same manner as the half-street improvement requirements.
- (6) All required street improvements shall include curbs, sidewalks with appropriate buffering, storm drainage, street lights, street signs, street trees, and, where designated, bikeways and transit facilities.
- (7) For subdivision and partition applications, the street improvements required by TDC Chapter 74 shall be completed and accepted by the City prior to signing the final subdivision or partition plat, or prior to releasing the security provided by the applicant to assure completion of such improvements or as otherwise specified in the development application approval.
- (10) Streets within, or partially within, a proposed development site shall be graded for the entire right-of-way width and constructed and surfaced in accordance with the Public Works Construction Code.
- (11) Existing streets which abut the proposed development site shall 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).
- (12) Sidewalks with appropriate buffering shall 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.
- (13) The applicant shall 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.
- (14) The applicant shall construct any required street improvements adjacent to parcels excluded from development, as set forth in TDC 74.220 of this chapter.
- (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 shall 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.
- (16) The City Engineer 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 shall sign a written agreement guaranteeing

future performance by the applicant and any successors in interest of the property being developed. The agreement shall be subject to the City's approval.

- (17) Intersections should be improved to operate at a level of service of at least D and E for signalized and unsignalized intersections, respectively.
- (18) Pursuant to requirements for off-site improvements as conditions of development approval in TDC 73.055(2)(e) and TDC 36.160(8), 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.

7. TDC 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.
- (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.
- (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 Engineer to address fish and wildlife habitat.
- (4) All streets shall be designed and constructed according to the preferred standard. The City Engineer 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 Engineer shall 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
 - (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)
 - (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. When the minimum design standard is allowed, the City Engineer may determine that no parking signs are required on one or both sides of the street.

8. TDC SECTION 74.430 STREETS, MODIFICATIONS OF REQUIREMENTS IN CASES OF UNUSUAL CONDITIONS

- (1) When, in the opinion of the City Engineer, 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 Engineer 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 Engineer 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.

9. TDC SECTION 74.440 STREETS, TRAFFIC STUDY REQUIRED

- (1) The City Engineer 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 Engineer 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.
- (2) The required traffic study shall be completed prior to the approval of the development application.
- (3) The traffic study shall 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 Engineer will determine which facilities are impacted and need to be included in the study.
 - (g) The study shall be conducted by a registered engineer.
- (4) The applicant shall implement all or a portion of the improvements called for in the traffic study as determined by the City Engineer.

FINDING:

The street from curb to curb was fully developed at the time of the Leveton Commons No. 2 in 2005. Full right-of-way width was also dedicated at that time as well. What exists matches the standard for a Connector street per Tualatin's standard, except the sidewalk along the frontage has not been developed. Public sidewalk and driveway improvements will be a part of the development improvements. No off-site improvements are expected to be required to due impacts of the proposed development.

Per the enclosed Transportation Impact Study, intersections and roadways in the vicinity will operate at or above minimum City standards, with or without the future road network and considering the proposed and surrounding development. Off-site street improvements requiring additional right-of-way to meet City standards is not necessary.

This criterion is satisfied.

10. TDC SECTION 74.470 STREET LIGHTS

- (1) Street light poles and luminaries shall be installed in accordance with the Public Works Construction Code.**
- (2) The applicant shall submit a street lighting plan for all interior streets on the proposed development prior to issuance of a Public Works Permit.**

FINDING:

Existing SW Leveton Drive has been fully constructed to the City's Public Works standards. All street lights and luminaries have been installed in accordance with the Public Works Construction Code. The proposal shows relocation of one street light to accommodate a new driveway. This is acceptable.

This criterion is satisfied with conditions of approval PFR-9 and -11.

11. TDC SECTION 74.485 STREET TREES

- (1) Prior to approval of a residential subdivision or partition final plat, the applicant shall pay the City a non-refundable fee equal to the cost of the purchase and installation of street trees. The location, placement, and cost of the trees shall be determined by the City. This sum shall be calculated on the interior and exterior streets as indicated on the final subdivision or partition plat.**
- (2) In nonresidential subdivisions and partitions street trees shall 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.**

FINDING:

All trees, plants or shrubs planted in the right-of-way of the City will conform in species and location and in accordance with the street tree plan.

This criterion is satisfied with conditions of approval PFR-7.

12. TDC SECTION 74.610 WATER SERVICE

- (1) Water lines shall be installed to serve each property in accordance with the Public Works Construction Code. Water line construction plans shall be submitted to the City Engineer for review and approval prior to construction.**
- (2) If there are undeveloped properties adjacent to the subject site, public water lines shall be extended by the applicant to the common boundary line of these properties. The lines shall be sized to provide service to future development, in accordance with the City's Water System Master Plan, TDC Chapter 12. This is not applicable to the site.**
- (3) As set forth is TDC Chapter 12, Water Service, the City has three water service levels. All development applicants shall 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 shall 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. This is not applicable to this site.**

FINDING:

Water service was stubbed into this and adjacent properties, during the subdivision development, for use by the proposed development.

The proposed industrial site development will be a single building at this time a single City meter is proposed, with the possibility that private sub-metering will be done at the building.

A separate fire line will be required to meet Fire Code requirements and the installation of an acceptable backflow device per State and City requirements will be installed.

At this time it is not anticipated that a meter larger than 2 inch will be needed.

As an 8-inch water line has been installed by the developer of the Leveton Commons No. 2 subdivision, to the parcel it is anticipated that no public water extension will be required.

A backflow appropriate for the domestic water use inside the building and a double check backflow device for the fire line service will be installed accordingly.

A control valve will be installed on the building side of the domestic water meter.

The plans show a double check for the fire line approximately 15 feet from right-of-way. The City needs access to the double checks that include fire vaults. If they are located out of right-of-way, a public easement is needed for the water line from the public water line to and including the fire vault and include access from right-of-way in case of inspection or maintenance activity.

A private FDC is proposed within SW Leveton Drive near the northwest corner of the site. This private FDC will be located on private property, not within public right-of-way.

The applicant will submit water system plans that show location of the water lines, grade, materials, and other details including public water and access easements from SW Leveton Drive to and including the fire vault if located outside of right-of-way and determination of fire flow requirements for the building.

This criterion is satisfied with conditions of approval PFR-2, -9, and -10.

13. TDC SECTION 74.620 SANITARY SEWER SERVICE

- (1) Sanitary sewer lines shall be installed to serve each property in accordance with the Public Works Construction Code. Sanitary sewer construction plans and calculations shall be submitted to the City Engineer for review and approval prior to construction.**
- (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 shall extend public sanitary sewer lines to the common boundary line with these properties. The lines shall 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.**

FINDING:

A sanitary sewer service lateral has been stubbed into this and adjacent properties as a part of the subdivision development.

A permit will be made to allow connection to the City's sanitary sewer system.

A sanitary sewer service lateral was installed to the site as a part of the Leveton Common No. 2 subdivision. Extension of that sewer lateral to the City will be done performed under Oregon State Plumbing Laws.

The plans show a cleanout approximately 14 feet from the edge of right-of-way for City maintenance. Revised plans will show a cleanout at the edge of right-of-way.

The applicant will submit sanitary sewer plans that show location of the lines, grade, materials, and other details prior to obtaining a Building Permit.

This criterion is satisfied with conditions of approval PFR-1, -9, and -10.

14. TDC SECTION 74.630 STORM DRAINAGE SYSTEM

- (1) Storm drainage lines shall be installed to serve each property in accordance with City standards. Storm drainage construction plans and calculations shall be submitted to the City Engineer for review and approval prior to construction.**
- (2) The storm drainage calculations shall confirm that adequate capacity exists to serve the site. The discharge from the development shall be analyzed in accordance with the City's Storm and Surface Water Regulations.**
- (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 shall extend storm drainage lines to the common boundary line with these properties. The lines shall 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.**

FINDING:

A storm drain line has been stubbed to the southeast corner of the site and to adjacent sites to serve as a storm drain laterals. Final storm drainage construction plans and calculations will be submitted to the City Engineer for review and approval as a part of the construction permitting.

Site stormwater quantity detention facilities will be a part of the design of the improvements. As there are no known downstream deficiencies, run-off rates through the 25-year event will be matched via on-site detention facilities.

The on-site detention is required because the City's stormwater master planning requires on-site detention at this location and is designed so that the run-off rates will not exceed predevelopment based on a 25-year, 24-hour return storm. Stormwater calculations are included with the Architectural Review application.

This criterion is satisfied with conditions of approval PFR-3, -9, and -10.

15. TDC SECTION 74.640 GRADING

- (1) Development sites shall 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.**
- (2) A development applicant shall 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 Engineer may require the applicant to remove all excess material from the development site.**

FINDING:

All improvement areas within the site will be graded so as the runoff is collected by the on-site drainage facilities. Only some landscape areas along boundary of the site may drain off-site, but overall the total overland flow across the parcel's boundaries will be greatly reduced.

All drainage will be via gravity drainage, no building crawl spaces will be created.

The proposed grading plan minimizes the impact of stormwater runoff to adjacent properties and allows adjacent properties to drain as they did before the development. The site will be graded so that stormwater will be collected at catch basins tied to a stormwater quality and detention pond at the southeast corner of the site.

Erosion and Sediment Control measures will be a part of the construction documents and construction management of the site.

Proper permitting for a 1200-CN permit as required will be obtain prior to site work beginning on the site.

The required EC permit, a 1200-CN permit will be applied for meeting the specific requirements for submitting.

The site is approximately 2.21 acres. A site specific plan, prepared by the project civil engineer, to control erosion during the construction of the proposed improvements and will be submitted with the permit application. A DEQ 1200-CN Erosion and Sedimentation Permit is required.

The applicant will submit an erosion control plan prior to application for an erosion control permit and obtain a 1200-CN permit.

This criterion is satisfied with conditions of approval PFR-4, -9, and -10.

16. TDC SECTION 74.650 WATER QUALITY, STORM WATER DETENTION AND EROSION CONTROL

The applicant shall 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, the applicant shall 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 satisfied and obtain a Stormwater Connection Permit from Clean Water Services; or**
- (3) For on-site private and regional non-residential public facilities, the applicant shall 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 shall submit an erosion control plan prior to issuance of a Public Works Permit. No construction or disturbing of the site shall occur until the erosion control plan is approved by the City and the required measures are in place and approved by the City.**

FINDING:

Stormwater from the building and all impervious surfaces on-site will be collected and drain to a stormwater quality and detention pond at the southeast corner of the site. Stormwater calculations are included with the Architectural Review application. The Applicant will obtain a 1200-CN permit. A Clean Water Services (CWS) Service Provider Letter (SPL) indicating that no site assessment or service provider letter is required is included with the Architectural Review application.

A stormwater facility agreement will be submitted for the on-site stormwater quality and detention pond prior to prior to issuance of a Public Works Permit. Erosion and sediment control plans are included in the attached.

The applicant will submit final stormwater calculations and plans.

A CWS Service Provider Letter (SPL) indicating that wetlands do not appear to be within 200 feet of this development site is included with the Architectural Review application. A CWS Memorandum was received dated August 24, 2017 for development on this site. The applicant will submit plans that are sufficient to obtain a Stormwater Connection Permit Authorization Letter that complies with the submitted Service Provider Letter conditions.

This criterion is satisfied with conditions of approval PFR-3, -9, and -10.

17. TDC 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 shall 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 shall 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.**

- (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 shall, at their own expense, provide an underground system. The applicant shall be responsible for obtaining any off-site deeds and/or easements necessary to provide utility service to this site; the deeds and/or easements shall be submitted to the City Engineer for acceptance by the City prior to issuance of the Public Works Permit.

FINDING:

There are no existing overhead utilities abutting the site.

Utility lines will be placed underground within the site. There will be some surface mounted connection boxes, transformers and meter boxes.

This criterion is satisfied.

18. TDC SECTION 74.765 STREET TREE SPECIES AND PLANTING LOCATIONS.

All trees, plants or shrubs planted in the right-of-way of the City shall conform in species and location and in accordance with the street tree plan in Schedule A. If the Operations Director determines that none of the species in Schedule A is appropriate or finds appropriate a species not listed, the Director may substitute an unlisted species.

FINDING:

All trees, plants or shrubs planted in the right-of-way of the City will conform in species and location and in accordance with the street tree plan.

This criterion is satisfied with conditions of approval PFR-7.