

Lam Research Building D Chemical Management System Addition Architectural Review

Date: February 2020

Submitted to: City of Tualatin
Planning Division
1880 SW Martinazzi Avenue
Tualatin, OR 97062

Property Owner: Lam Research Corporation
2025 Gateway Place #228
San Jose, CA 95110

Applicant: JE Dunn
424 NW 14th Avenue
Portland, OR 97209

AKS Job Number: 7860



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Property Owner:	Lam Research Corporation 2025 Gateway Place #228 San Jose, CA 95110
Applicant's Consultant:	AKS Engineering & Forestry, LLC 12965 SW Herman Road, Suite 100 Tualatin, OR 97062 Contact: Chris Goodell, AICP, LEED ^{AP} Email: chrisg@aks-eng.com Phone: (503) 563-6151
Site Location:	11361 SW Leveton Drive
Washington County Assessor's Map:	2S 1 22AB Tax Lot 100
Site Size:	Total site = ± 58 acres Tax Lot 100 = ±27.23 acres
Land Use District:	Manufacturing Park (MP)



I. Executive Summary

On behalf of Lam Research (Owner) and JE Dunn (Applicant), AKS Engineering and Forestry, LLC is submitting this application for Architectural Review of a building addition at the Lam Research industrial campus at 11361 SW Leveton Drive. Lam Research designs and manufactures equipment used in the fabrication of semiconductor products. The subject project, also known as the “Chemical Management System (CMS) Addition” will add approximately 6,900 square feet to the north of the existing Building D manufacturing building. The new space will support the existing manufacturing equipment in Building D (“TUD”) and Building D North (“TUD North”) by providing space for process chemicals to be stored, delivered, and dispensed in the new addition. This delivery and storage area will enable “Wet Processing” in Building D North by providing a central location for facilities infrastructure. Waste streams from Wet Processing will also be collected, stored, and shipped from the new addition. The space will be used by existing employees and will not require additional staff.

The site improvements are located in the interior of the site and will replace an existing lawn area and 11 parking spaces immediately north of Building D North. The planned addition includes a covered truck loading area on the north side of the building addition. The project will connect to the existing private water, sewer, and stormwater lines on site. Changes to the existing vehicular access and circulation as well as the stormwater facilities are not necessary.

II. Site Description/Setting

The subject site is the ±58-acre Lam Research campus located west of SW 108th Avenue between SW Tualatin Road and SW Leveton Drive. The property is within the Manufacturing Park (MP) zone and consists of three Washington County tax lots: Tax Lots 500 and 800 of Map 2S 1 22AA, and Tax Lot 100 of Map 2S 1 22AB. The location of the subject addition is on Tax Lot 100. The Lam Research campus is improved with numerous buildings, parking and circulation areas, landscaping, and stormwater facilities. Neighboring industrial properties are located to the west, south, and east. North of the site, across SW Tualatin Road, are existing single-family residential neighborhoods.

The Lam Research campus has received numerous land use approvals, including an Industrial Master Plan in 2001. More recent Architectural Review approvals include the Building D North Addition approval in 2016 and the Parking Master Plan approval in 2017.

III. Applicable Review Criteria

Tualatin Development Code

CHAPTER 32 PROCEDURES

TDC 32.010. Purpose and Applicability.

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- (2) **Applicability of Review Procedures.** All land use and development permit applications and decisions, will be made by using the procedures contained in this Chapter. The procedure "type" assigned to each application governs the decision-making process for that permit or application. There are five types of permit/application procedures as described in subsections (a) through (e) below. Table 32-1 lists the City's land use and development applications and corresponding review procedure(s).

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- (b) Type II Procedure (Administrative/Staff Review with Notice). A Type II procedure is used when the standards and criteria require limited discretion, interpretation, or policy or legal judgment. Type II decisions are made by the City Manager and require public notice and an opportunity for appeal to the Planning Commission, Architectural Review Board, or City Council as shown in Table 32-1. Those Type II decisions which are "limited land use decisions" as defined in ORS 197.015 are so noted in Table 32-1.

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- (3) Determination of Review Type. Unless specified in Table 32-1, the City Manager will determine whether a permit or application is processed as Type I, II, III, IV-A or IV-B based on the descriptions above. Questions regarding the appropriate procedure will be resolved in favor of the review type providing the widest notice and opportunity to participate. An applicant may choose to elevate a Type I or II application to a higher numbered review type, provided the applicant pays the appropriate fee for the selected review type.

Table 32-1—Applications Types and Review Procedures						
Application/Action	Procedure Type	Decision Body*	Appeal Body*	Pre-Application Conference Required	Neighborhood/Developer Mtg Required	Applicable Code Chapter
Architectural Review						
• Architectural Review (except as specified below) (limited land use)	II	CM	ARB/CC	Yes	Yes	TDC 33.020
<i>* City Council (CC); Planning Commission (PC); Architectural Review Board (ARB); City Manager or designee (CM); Land Use Board of Appeals (LUBA).</i>						

Response: As described above, the subject Architectural Review application will be processed through the Type II procedure with a staff decision and is appealable to the Architectural Review Board.

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TDC 32.110. Pre-Application Conference.

- (1) Purpose of Pre-Application Conferences. Pre-application conferences are intended to familiarize applicants with the requirements of the TDC; to provide applicants with an opportunity discuss proposed projects in detail with City staff; and to identify approval criteria, standards, and procedures prior to filing a land use application. The pre-application conference is intended to be a tool to assist applicants in navigating the land use process, but is not intended to be an exhaustive review that identifies or resolves all potential issues, and does not bind or preclude the City from enforcing any applicable regulations or from applying regulations in a manner differently than may have been indicated at the time of the pre-application conference.
- (2) When Mandatory. Pre-application conferences are mandatory for all land use actions identified as requiring a pre-application conference in Table 32-1. An applicant may voluntarily request a pre-application conference for any land use action even if it is not required.
- (3) Timing of Pre-Application Conference. A pre-application conference must be held with City staff before an applicant submits an application and before an applicant conducts a Neighborhood/Developer meeting.
- (4) Application Requirements for Pre-Application Conference.

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- (a) Application Form. Pre-application conference requests must be made on forms provided by the City Manager.
 - (b) Submittal Requirements. Pre-application conference requests must include:
 - (i) A completed application form;
 - (ii) Payment of the application fee;
 - (iii) The information required, if any, for the specific pre-application conference sought; and
 - (iv) Any additional information the applicant deems necessary to demonstrate the nature and scope of the proposal in sufficient detail to allow City staff to review and comment.
 - (5) Scheduling of Pre-Application Conference. Upon receipt of a complete application, the City Manager will schedule the pre-application conference. The City Manager will coordinate the involvement of city departments, as appropriate, in the pre-application conference. Pre-application conferences are not open to the general public.
 - (6) Validity Period for Mandatory Pre-Application Conferences; Follow-Up Conferences. A follow-up conference is required for those mandatory pre-application conferences that have previously been held when:
 - (a) An application relating to the proposed development that was the subject of the pre-application conference has not been submitted within six months of the pre-application conference;
 - (b) The proposed use, layout, and/or design of the proposal have significantly changed; or
 - (c) The owner and/or developer of a project changes after the pre-application conference and prior to application submittal.

Response: A pre-application conference was held with City staff on January 15, 2020. The pre-application conference followed the above procedures and is valid for six months, or until July 15, 2020.

TDC 32.120. Neighborhood/Developer Meetings.

- (1) Purpose. The purpose of this meeting is to provide a means for the applicant and surrounding property owners to meet to review a development proposal and identify issues regarding the proposal so they can be considered prior to the application submittal. The meeting is intended to allow the developer and neighbors to share information and concerns regarding the project. The applicant may consider whether to incorporate solutions to these issues prior to application submittal.
- (2) When Mandatory. Neighborhood/developer meetings are mandatory for all land use actions identified in Table 32-1 as requiring a neighborhood/developer meeting. An applicant may voluntarily conduct a neighborhood/developer meeting even if it is not required and may conduct more than one neighborhood/developer meeting at their election.
- (3) Timing. A neighborhood/developer meeting must be held after a pre-application meeting with City staff, but before submittal of an application.
- (4) Time and Location. Required neighborhood/developer meetings must be held within the city limits of the City of Tualatin at the following times:
 - (a) If scheduled on a weekday, the meeting must begin no earlier than 6:00 p.m.
 - (b) If scheduled on a weekend, the meeting must begin between 10:00 a.m. and 6:00 p.m.

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- (5) Notice Requirements.
- (a) The applicant must provide notice of the meeting at least 14 calendar days and no more than 28 calendar days before the meeting. The notice must be by first class mail providing the date, time, and location of the meeting, as well as a brief description of the proposal and its location. The applicant must keep a copy of the notice to be submitted with their land use application.
 - (b) The applicant must mail notice of a neighborhood/developer meeting to the following persons:
 - (i) All property owners within 1,000 feet measured from the boundaries of the subject property;
 - (ii) All property owners within a platted residential subdivision that is located within 1,000 feet of the boundaries of the subject property. The notice area includes the entire subdivision and not just those lots within 1,000 feet. If the residential subdivision is one of two or more individually platted phases sharing a single subdivision name, the notice area need not include the additional phases; and
 - (iii) All designated representatives of recognized Citizen Involvement Organizations as established in TMC Chapter 11-9.
 - (c) The City will provide the applicant with labels for mailing for a fee.
 - (d) Failure of a property owner to receive notice does not invalidate the neighborhood/developer meeting proceedings.
- (6) Neighborhood/Developer Sign Posting Requirements. The applicant must provide and post on the subject property, at least 14 calendar days before the meeting. The sign must conform to the design and placement standards established by the City for signs notifying the public of land use actions in TDC 32.150.
- (7) Neighborhood/Developer Meeting Requirements. The applicant must have a sign-in sheet for all attendees to provide their name, address, telephone number, and email address and keep a copy of the sign-in sheet to provide with their land use application. The applicant must prepare meeting notes identifying the persons attending, those commenting and the substance of the comments expressed, and the major points that were discussed. The applicant must keep a copy of the meeting notes for submittal with their land use application.

Response: A neighborhood/developer meeting was held on February 19, 2020. As demonstrated in the information included in Exhibit I, the meeting time, location, noticing, posting, and content of the meeting followed the applicable standards above.

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TDC 32.140. Application Submittal.

- (1) Submittal Requirements. Land use applications must be submitted on forms provided by the City. A land use application may not be accepted in partial submittals. All information supplied on the application form and accompanying the application must be complete and correct as to the applicable facts. Unless otherwise specified, all of the following must be submitted to initiate completeness review under TDC 32.160:
 - (a) A completed application form. The application form must contain, at a minimum, the following information:
 - (i) The names and addresses of the applicant(s), the owner(s) of the subject property, and any authorized representative(s) thereof;
 - (ii) The address or location of the subject property and its assessor's map and tax lot number;

- (iii) The size of the subject property;
 - (iv) The comprehensive plan designation and zoning of the subject property;
 - (v) The type of application(s);
 - (vi) A brief description of the proposal; and
 - (vii) Signatures of the applicant(s), owner(s) of the subject property, and/or the duly authorized representative(s) thereof authorizing the filing of the application(s).
- (b) A written statement addressing each applicable approval criterion and standard;
 - (c) Any additional information required under the TDC for the specific land use action sought;
 - (d) Payment of the applicable application fee(s) pursuant to the most recently adopted fee schedule;
 - (e) Recorded deed/land sales contract with legal description.
 - (f) A preliminary title report or other proof of ownership.
 - (g) For those applications requiring a neighborhood/developer meeting:
 - (i) The mailing list for the notice;
 - (ii) A copy of the notice;
 - (iii) An affidavit of the mailing and posting;
 - (iv) The original sign-in sheet of participants; and
 - (v) The meeting notes described in TDC 32.120(7).
 - (h) A statement as to whether any City-recognized Citizen Involvement Organizations (CIOs) whose boundaries include, or are adjacent to, the subject property were contacted in advance of filing the application and, if so, a summary of the contact. The summary must include the date when contact was made, the form of the contact and who it was with (e.g. phone conversation with neighborhood association chairperson, meeting with land use committee, presentation at neighborhood association meeting), and the result;
 - (i) Any additional information, as determined by the City Manager, that may be required by another provision, or for any other permit elsewhere, in the TDC, and any other information that may be required to adequately review and analyze the proposed development plan as to its conformance to the applicable criteria;

Response: This application submittal includes the applicable information as required above, including the application form, fee, narrative, property ownership information, and neighborhood/developer meeting documentation. City-recognized Citizen Involvement Organizations (CIOs) were notified of the neighborhood/developer meeting by email. The neighborhood/developer meeting documentation is provided in Exhibit I.

...

CHAPTER 33 Applications and Approval Criteria

TDC 33.020. Architectural Review.

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- (2) **Applicability.**
- (a) The following types of development are subject to Architectural Review:
 - (i) Any exterior modifications to improved or unimproved real property;
 - (ii) Any remodeling that changes the exterior appearance of a building;
 - (iii) Any site alteration which alters the topography, appearance or function of the site; and
 - (iv) Any change in occupancy from single family use to commercial or industrial use.
 - (b) Examples of development subject to Architectural Review, include but are not limited to the following:
 - (i) New buildings, condominiums, townhouse, single family dwellings, or manufactured dwelling park;
 - (ii) Construction, installation, or alteration of a building or other structure;
 - (iii) Landscape improvements;
 - (iv) New, improved, or expanded parking lots;
 - (v) New, or alterations to, above ground public utility facilities, pump stations, pressure reading stations, water reservoirs, electrical substations, and natural gas pumping stations;
 - (vi) New wireless communication facilities, and new attached wireless communication;
 - (vii) Installation of decorative lighting; and
 - (viii) Exterior painting, awnings, or murals.
 - (c) Exceptions to Architectural Review. The following applications for development do not require Architectural Review:
 - (i) The addition or alteration of an existing single-family dwelling if it involves:
 - (A) Less than 35% of the structure's existing footprint;
 - (B) No new story;
 - (C) Less than 35% of an existing front or rear wall plane; or
 - (D) A side wall plane that abuts the side yard of an adjacent dwelling.
 - (ii) The modification by the City of greenways, parks, other Parks and Recreation Department improvements, and right-of-way landscaping improvements.

Response: As described above, the planned building addition and site improvements are subject to the Architectural Review process.

- (3) **Types of Architectural Review Applications—Procedure Type.**
- ...
- (c) **General Development.** All development applications, (except Single Family Dwelling, Clear and Objective and Large Commercial, Industrial, and Multifamily Development) are subject to Type II Review.

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- (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;
 - (ii) New Industrial Buildings 150,000 square feet and larger; and
 - (iii) New Multifamily Housing Projects with 100 units or more units (or any number of units abutting a single family district).

...

Response: As described above, the planned ±6,900 square foot building addition and site improvements are subject to the Type II Architectural Review process.

- (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.

Response: Application materials including preliminary plans, architectural details, property ownership information and a Clean Water Services (CWS) Service Provider Letter are provided in this submittal package along with other materials described in Section 32.140. The criteria are met.

- (5) Approval Criteria.
 - ...
 - (b) General Development.
 - ...
 - (ii) Applications for General Development must comply with the applicable standards and objectives in TDC Chapter 73A through 73G.

...

Response: As described above in Subsection 33.020.3.C, this project is considered “General Development” and therefore the standards and objectives in TDC Chapter 73A through 73G apply. See the responses to the applicable sections below.

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CHAPTER 62 MANUFACTURING PARK ZONE (MP)

TDC 62.200. Use Categories.

- (1) Use Categories. Table 62-1 lists use categories Permitted Outright (P) or Conditionally Permitted (C) in the MP zone. Use categories may also be designated as Limited (L) and subject to the limitations listed in Table 62-1 and restrictions identified in TDC 62.210. 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.

Table 62-1: Use Categories in the MP Zone		
USE CATEGORY	STATUS	LIMITATIONS AND CODE REFERENCES
INDUSTRIAL USE CATEGORIES		
Light Manufacturing	P (L)	Permitted uses limited to: <ul style="list-style-type: none"> • Manufacture or assembly of electronic or optical instruments, equipment, devices; musical instruments; toys; and sporting goods. • Production of textiles or apparel; • Printing, publishing, and lithography shops; and • Research and development laboratories. Primary processing of organic materials, such as tanning of leather, is prohibited.

Response: The subject site is located in the Manufacturing Park (MP) Planning District. Lam Research designs and manufactures equipment used in the fabrication of semiconductor products. As noted in the table above, the manufacturing of electronic instruments or equipment is a permitted use. This standard is met.

TDC 62.210. Additional Limitations on Uses.

...

- (2) **Offices.** Office uses are a permitted as specified below.

...

(b) **Accessory Uses to an Industrial Use.** Office uses accessory to a permitted industrial use are permitted.

(c) **Limited Uses.** Offices located on the same site as a permitted industrial use may be permitted, subject to TDC 62.210(4).

Response: Office uses accessory to the primary industrial use are located on the site and are permitted as described above. This standard is met.

...

TDC 62.300. Development Standards.

Development standards in the MP zone are listed in Table 62-2. Additional standards may apply to some uses and situations, see TDC 62.310.

Table 62-2: Development Standards in the MP Zone		
STANDARD	REQUIREMENT	LIMITATIONS AND CODE REFERENCES
Minimum Building Setback for Yards Adjacent to Streets or Alleys, North of SW Leveton Drive	100 feet	
Minimum Setback for Side and Rear Yards not Adjacent to Streets or Alleys, north of SW Leveton Drive	50 feet	No minimum setback if adjacent to railroad right-of-way or spur track.
Parking and Circulation Areas Adjacent to Public Right-of-Way	50 feet	No minimum setback required adjacent to joint access approach in accordance with TDC 73C.
Parking and Circulation Areas Adjacent to Private Property Line	5-25 feet	Determined through Architectural Review Process. No minimum setback required adjacent to joint access approach in accordance with TDC 73C.
Maximum Height	70 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. Flagpoles may extend to 100 feet.

Response: The above setback standards are superseded by the existing Industrial Master Plan approval for the site (IMP-00-01). The Industrial Master Plan requires the setback to the western common property line with JAE to be a minimum of 100 feet. The planned building addition meets this interior setback standard. Given that there are buildings between the planned addition and the other three property boundaries, no other setbacks apply. The subject building addition does not exceed the maximum height standard of 70 feet. The applicable criteria are met.

TDC 62.310. 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.

Response: As discussed above, there is an approved Industrial Master Plan for the subject site with modified setback standards. Changes to the approved Industrial Master Plan are not included in this application.

...

CHAPTER 63 INDUSTRIAL USES AND UTILITIES AND MANUFACTURING ZONES — ENVIRONMENTAL REGULATIONS

TDC 63.020. Applicability.

The regulations of this Chapter apply to:

- (1) All industrial uses and utilities, regardless of the Planning District in which they are located, and
- (2) All Manufacturing Planning Districts, regardless of the use category.

Response: The use of this planned building addition will be industrial. Therefore, the following environmental regulations apply.

TDC 63.051. Noise.

All uses and development must comply with the Oregon State Department of Environmental Quality standards relating to noise and the City of Tualatin noise ordinance in, TMC 6-14.

Response: The use within the building addition and loading area is not expected to produce loud noises. The site will continue to comply with the City of Tualatin noise ordinance and Oregon Department of Environmental Quality (DEQ) standards as applicable.

TDC 63.052. Vibration.

- (1) Restrictions. All uses and development must not cause or permit ground vibration into the property of another person that exceeds the limits set forth below in this section.
 - (a) Ground vibration as measured at the boundary of a residential planning district and an industrial planning district must not exceed 0.01 inches per second (0.00025 meters per second) RMS velocity.
 - (b) Ground vibration as measured at a common property boundary of any two properties within any industrial planning district must not exceed 0.1 inches per second (0.0025 meters per second) RMS velocity.
- (2) Method of Measurement. Vibration measurement procedures must conform to the methods described in this section and to procedures approved by the Oregon Department of Environmental Quality.
 - (a) Instrumentation must be capable of measuring RMS value of the vibration velocity over the frequency range of ten to 1,000 hertz.
 - (b) Measurement values must be recorded for a sufficient period of observation to provide a representative sample.
 - (c) Attachment of the vibration transducer to the ground must be by magnetic or screw attachment to a steel bar of a minimum of nine inches (22.9 cm.) in length, driven flush with the ground surface.
- (3) Exemptions. The requirements of TDC 63.052(1) do not apply to:
 - (a) Vibration resulting from the operation of any equipment or facility of a surface carrier engaged in interstate commerce by railroad;
 - (b) Vibration resulting from the operation of any road vehicle;
 - (c) Vibration resulting from construction activities and use of construction equipment; and
 - (d) Vibration resulting from roadway maintenance and repair equipment.

Response: The use within the building addition and loading area is not expected to produce vibration. The site will continue to comply with the above applicable standards for vibration.

TDC 63.053 Air Quality.

- (1) Restrictions. All uses and development must comply with the most recent air quality standards adopted by the Oregon Department of Environmental Quality. Plans of construction and operations must comply with the recommendations and regulations of the State Department of Environmental Quality.
- (2) Method of Measurement. All measurements of air pollution must be by the procedures and with equipment approved by the State Department of Environmental Quality or equivalent and acceptable methods or measurement approved by the City. Upon request of the City, persons responsible for a suspected source of air pollution must

provide quantitative and qualitative information regarding the discharge that will adequately and accurately describe operation conditions.

Response: The use within the building addition and loading area is not expected to negatively impact air quality standards. The existing scrubber will be used for applicable exhaust streams. The site will continue to comply with applicable Oregon DEQ standards.

TDC 63.054. Odors.

All uses and development must not emit odors in such quantities as to create a nuisance condition at any point beyond the subject property line of the emitting use.

Response: The use within the building addition and loading area is not expected to produce odor. The existing scrubber will be used for applicable exhaust streams. The site will continue to comply with the above odor standard.

TDC 63.055. Heat and Glare.

- (1) All uses and development must conduct all operations producing heat or glare entirely within an enclosed building.
- (2) All uses and development may utilize exterior lighting, but the exterior lighting must be screened, baffled or directed away from residential planning districts.

Response: The planned use is not expected to produce heat or glare. Exterior lighting on the planned addition will be directed downward and will not be visible from residential planning districts. The standards are met.

TDC 63.056. Storage and Stored Materials.

- (1) All uses and development must store all materials, including wastes, in a manner that will not attract or aid the propagation of insects or rodents, or in any other way create a health or safety hazard.
- (2) All uses and development that utilize open storage that would otherwise be visible at the property line must conceal it from view at the abutting property line by a sight obscuring fence not less than six feet high and not accessible to the general public to protect public safety.

Response: The subject building addition will include storage of materials and wastes. All storage will be contained indoors and will not create health or safety hazards. The standards are met as applicable.

TDC 63.057. Liquid or Solid Waste Materials.

All uses and development are prohibited from disposing waste onto the site or into adjacent drainage ditches, creeks or other natural waterways in violation of State of Oregon DEQ standards, Clean Water Services Standards, City Standards, or in a manner that causes harm to wildlife.

Response: The existing site use and planned addition do not dispose of waste onto the site or into adjacent drainage areas. The applicable Oregon DEQ, Clean Water Services, and City environmental regulations will continue to be met.

TDC 63.058. Dangerous Substances.

All uses and development are prohibited from the storage, transfer, or processing of hazardous, toxic, or radioactive waste.

Response: The building will be used for storage of hazardous substances. The planned use will continue to comply with the applicable DEQ standards for chemical storage and disposal.

CHAPTER 73A SITE DESIGN STANDARDS

TDC 73A.400. Industrial Design Standards.

The following standards are minimum requirements for industrial development in all zones:

- (1) **Walkways.** Industrial development must provide walkways as follows:
 - (a) Walkways must be a minimum of five 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;
 - (e) Walkways must be provided between the main building entrances and other on-site buildings, accessways, and sidewalks along the public right-of-way;
 - (f) Walkways through parking areas, drive aisles, and loading areas must be of a different appearance than the adjacent paved vehicular areas; 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.

Response: The planned site improvements include removal of a portion of existing sidewalk along the northern edge of the area to be modified. The existing crosswalks and ramps at the northwest corner of the improved area will remain in place and pedestrian circulation will be maintained. Therefore, the applicable walkway standards are met.

- (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:
...

Response: This application does not include common wall development or drive-up uses. Therefore, the above subsections do not apply.

- (4) **Safety and Security.** Industrial 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;
 - (b) Locate windows and interior lighting to enable surveillance of interior activity from the public right-of-way;
 - (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;
 - (d) Provide an identification system which clearly locates buildings and their entries for patrons and emergency services; and

- (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 six foot tall security fence or wall.

Response: As illustrated on the Preliminary Photometrics Plan and Preliminary Elevations and Materials of Exhibit A, new lighting is provided to supplement the existing lighting along the northern elevation of the building addition to adequately light the pedestrian, parking, and loading areas. Given the use of the storage building, windows are not included in the building design. The new building will meet the identification standards for emergency services. The above standards are met as applicable.

- (5) Service, Delivery, and Screening. Industrial 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;
 - (b) Outdoor storage must be screened with a sight obscuring fence, wall, berm or dense evergreen landscaping; and
 - (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.

Response: Roof-top mechanical equipment is included in the building addition design. However, the equipment is not visible from public areas on or off site. The above standards do not apply.

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CHAPTER 73B LANDSCAPING STANDARDS

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

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

Zone	Minimum Area Requirement*	Minimum Area Requirement with dedication for a fish and wildlife habitat*
(5) IN, CN, CO/MR, MC and MP zones—All uses	25 percent of the total area to be developed	22.5 percent of the total area to be developed

Response: The approved Industrial Master Plan for the site (IMP-00-01) required a minimum of 20 percent of the site to be landscaped. Approximately 25.8 acres (or 44.5 percent) of the entire ±58-acre site is currently covered by landscaping. This application will reduce the landscaped area by ±6,900 square feet, which is approximately 0.16 acres. Therefore, the total landscaping area after these site improvements will be ±25.6 acres, or ±44.2 percent of the site. This standard is met.

TDC 73B.050. Additional Minimum Landscaping Requirements for Industrial Uses.

- (1) General. In addition to requirements in TDC 73B.020, industrial 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.

- (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.
- (c) Five-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 eight feet.
- (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.

Response: As illustrated on the Preliminary Site and Landscape Plan of Exhibit A, all areas within the improvement area of this application not occupied by buildings, parking, and pedestrian and vehicular circulation areas are landscaped. As stated above, 5-foot-wide landscaped areas are not required adjacent to loading areas. Therefore, the above landscaping requirements are met, as applicable.

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TDC 73B.070. Minimum Landscaping Standards for All Zones.

The following are minimum standards for landscaping for all zones.

<p>(1) Required Landscape Areas</p>	<ul style="list-style-type: none"> • Must be designed, constructed, installed, and maintained so that within three years the ground must be covered by living grass or other plant materials. • The foliage crown of trees cannot be used to meet this requirement. • A maximum of ten percent of the landscaped area may be covered with un-vegetated areas of bark chips, rock or stone. • Must be installed in accordance with the provisions of the American National Standards Institute ANSI A300 (Part 1) (Latest Edition). • Must be controlled by pruning, trimming, or otherwise so that: • It will not interfere with designated pedestrian or vehicular access; and • It will not constitute a traffic hazard because of reduced visibility.
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(4) Grading	<ul style="list-style-type: none"> • 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. • All planting areas must be graded to provide positive drainage. • Soil, water, plant materials, mulch, or other materials must not be allowed to wash across roadways or walkways. • Impervious surface drainage must 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.
(5) Irrigation	<ul style="list-style-type: none"> • Landscaped areas must be irrigated with an automatic underground or drip irrigation system • Exceptions: <ul style="list-style-type: none"> ○ Irrigation requirement does not apply to duplexes and townhouses.
(6) Re-vegetation in Un-landscaped Areas	<ul style="list-style-type: none"> • Vegetation must be replanted in all areas where vegetation has been removed or damaged in areas not affected by the landscaping requirements and that are not to be occupied by structures or other improvements. • Plant materials must be watered at intervals sufficient to ensure survival and growth for a minimum of two growing seasons. • The use of native plant materials is encouraged to reduce irrigation and maintenance demands. • Disturbed soils should be amended to an original or higher level of porosity to regain infiltration and stormwater storage capacity.

Response: New landscaping areas are not included in this application. However, the northwest corner of the improvement area, which is currently lawn, will be temporarily used as a construction staging area. After construction is complete, this area will be restored to lawn as approved in the previous architectural review application for the Building D North expansion in 2016. This lawn area will meet the above landscaping standards as applicable. This criterion is met.

TDC 73B.080. Minimum Standards Trees and Plants.

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

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(6) Lawns	<ul style="list-style-type: none"> • Consist of grasses, including sod, or seeds of acceptable mix within the local landscape industry; • 100 percent coverage and weed free; and • Healthy, disease-free, damage-free, characteristic of the species.
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Response: As stated above, the lawn area at the northwest corner of the improvement area will be reestablished after construction is complete in accordance with the above standards. This criterion is met.

CHAPTER 73C PARKING STANDARDS

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TDC 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
(f) Industrial				
(i) Manufacturing	1.60 spaces per 1,000 square feet of gross floor area	None	2, or 0.10 spaces per 1,000 gross square feet, whichever is greater	First five spaces or 30 percent, whichever is greater

- (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

Response: A Parking Master Plan (AR-16-0010) for the site was approved by the City in 2017 which included approval of three new parking lots, adding 691 parking spaces, for a total of 1,532 parking spaces on the campus. As of this date, not all of the approved parking spaces have been installed on the site. The subject building addition and site improvements will remove 11 existing vehicular parking spaces. The following is a summary of the minimum parking required, the existing parking, and the parking after the subject improvements are complete.

Parking Analysis				
	Required	Existing	New	New Total
Building Area (square feet)		±553,140	±6,900	±560,040
Minimum Parking Required	1.6 per 1,000 square feet	885 spaces	+ 11 spaces	896 spaces
Parking Provided		1,424 spaces	- 11 spaces	1,413 spaces

As illustrated on the above table, with the planned improvements, the parking provided will far exceed the minimum required. Changes are not planned to the approved bicycle and carpool spaces. The applicable standards are met.

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TDC 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
Industrial	Less than 5,000	0	0	0
	5,000—25,000	1	12 feet × 60 feet	14 feet
	25,000—60,000	2	12 feet × 60 feet	14 feet
	60,000 and over	3	12 feet × 60 feet	14 feet

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

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- (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.
 - (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.

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Response: There are more than three existing loading berths. This application includes an additional loading berth that is not a “required” berth but meets the above dimensional and location standards. The loading area is not visible from public view or adjacent properties; therefore, screening does not apply. The criteria are met.

TDC 73C.230. - Industrial Parking Lot Landscaping Requirements.

Industrial uses must comply with the following landscaping requirements for parking lots in all zones.

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Response: New parking areas are not included in this application. This section does not apply.

CHAPTER 73D WASTE AND RECYCLABLES

TDC 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 TDSC 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.

TDC 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 seven 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.
- (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 five to ten units must provide 50 square feet.
- (b) Common wall residential greater than ten units must provide 50 square feet plus an (additional five square feet per unit above ten.
- (c) Commercial, industrial, and institutional developments must provide a minimum storage area of ten square feet plus:
 - (i) Office—Four square feet/1,000 square feet gross leasable area (GLA);
 - (ii) Retail—Ten square feet/1,000 square feet GLA;
 - (iii) Wholesale/Warehouse/Manufacturing—Six square feet/1,000 square feet GLA;
 - (iv) Educational and Institutional—Four square feet/1,000 square feet GLA; and
 - (v) All other uses—Four square feet/1,000 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.

Response: Previous land use approvals on the Lam Research campus used this minimum standards method to determine adequacy of solid waste and recycling facilities. As described in the letter from Republic Services in Exhibit F, waste and recycling from the planned addition can be accommodated with the existing trash and recycling facilities. The criteria are met.

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CHAPTER 74 PUBLIC IMPROVEMENT REQUIREMENTS

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TDC 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.

TDC 74.140. - Construction Timing.

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- (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 improvements are not included in this application. The above standards apply to private improvements and can be met as applicable.

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TDC 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

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- (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 must be completed prior to the approval of the development application.
 - (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.
 - (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 property's street frontages have previously been improved to meet City standards and changes to the site access points and circulation are not included in this application. A letter is included in this application (Exhibit G) which describes the number of anticipated trips associated with the addition. The City traffic engineer confirmed (see Exhibit G for record of the correspondence) that a more detailed traffic analysis is not required. Therefore, this section does not apply.

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TDC 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.
- (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.
- (3) As set forth in 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: Domestic water demands will be served by existing plumbing within Building D North. Changes are not planned to the existing connections with the public water system. The criteria are met as applicable.

TDC 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.
- (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: An existing private sanitary sewer line will be extended to serve the building addition. Changes are not planned to the existing connections with the public sanitary sewer system. The criteria are met as applicable.

TDC 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.
- (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.
- (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: The site's existing stormwater management facilities were designed with capacity to accommodate the planned building addition. See the Preliminary Stormwater Report in Exhibit H for details. Runoff from the planned improvements will connect to the existing storm drainage system as illustrated on the Preliminary Plans (Exhibit A). The criteria are met as applicable.

TDC 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.
- (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: The subject improvements are not located near property lines with neighboring properties. Stormwater from the planned improvements will be directed into the existing stormwater management facilities and will not impact adjacent properties. The Preliminary Grading Plan and Preliminary Public Facilities Plan in Exhibit A includes the above applicable information. The criteria are met.

TDC 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, 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 satisfied and obtain a Stormwater Connection Permit from Clean Water Services; or
- (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.
- (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 site's existing stormwater management facilities were designed with capacity to accommodate the planned building addition. See the Preliminary Stormwater Report in Exhibit H for details. Runoff from the planned improvements will connect to the existing storm drainage system as illustrated on the Preliminary Public Facilities Plan (Exhibit A) and will connect to an existing extended dry basin ("Pond B") on the southern area of the site. The Applicant will obtain the necessary City erosion control permit approvals prior to site improvements. The criteria are met as applicable.

TDC 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.
- (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: As illustrated on the Preliminary Plans, new utility lines will be placed underground. The criteria are met.

TDC 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 existing site improvements including structures, utility lines, and street frontage improvements meet the above standards. The criteria are met.

CHAPTER 75 ACCESS MANAGEMENT

TDC 75.070. - Existing Driveways and Street Intersections.

- (1) Existing driveways with access onto arterials on the date this chapter was originally adopted are allowed to remain. If additional development occurs on properties with existing driveways with access onto arterials then this Chapter applies and the entire site must be made to conform with the requirements of this chapter.
- (2) The City Manager may restrict existing driveways and street intersections to right-in and right-out by construction of raised median barriers or other means.

Response: The subject site has existing driveways with access onto SW Leveton Drive, an arterial; therefore, this chapter applies. As discussed below, the existing driveways and frontages conform to City standards. Changes are not planned with this application and additional standards do not apply.

TDC 75.140. Existing Streets Access 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.

(15) LEVETON DRIVE.

(a) 108th Avenue to 118th Avenue.

- (i) On the north side of Leveton Drive, JAE (2S122B 200) shall align a driveway across from 118th Avenue and be permitted a second driveway approximately 50 feet from their east property line. Novellus (2S122AA 500 and 2S122AB 100) shall be permitted three driveways located approximately 25 feet and 950 feet from the west property line for Tax Lot 100 and 600 feet west of 108th Avenue for Tax Lot 500.

Response: The existing frontages of the Lam Research campus were previously improved to City standards. The three existing access driveways on SW Leveton Drive are generally located as described above and changes are not included in this application. The access management standards do not apply to this application.

Tualatin Municipal Code

TITLE 3 UTILITIES AND WATER QUALITY

CHAPTER 3-02 SEWER REGULATIONS; RATES

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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) 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.

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.
- (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.

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- (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: This application includes a sanitary sewer connection to the existing private sanitary sewer line that ultimately connects with the public system. A separate construction permit application will be submitted to the City for review of the planned private sewer connection. Permits will be obtained prior to commencing utility work on site. The above provisions can be met at the time of construction.

TMC 3-2-040 Restrictions As to Use of Sanitary Sewer System.

- (1) Neither temporary nor permanent drainage of excavations into the sanitary sewerage system shall be permitted. Drainage from roofs, foundation drains, uncontaminated cooling water, surface or ground water drains shall not be permitted into the sanitary sewerage system. Overflows or drains from private or public swimming pools shall not be permitted without written consent of the City.
- (2) The City reserves the right to reject the application for service for any property owner upon whose property industrial or commercial activities create a waste of unusual strength, character or volume. All applications for the discharge of industrial waste shall be reviewed on an individual basis by the City. Certain restricted wastes may require pretreatment facilities prior to discharge to the sewerage system. Where pretreatment facilities are required, they shall be installed and maintained continuously by the owner at his expense in satisfactory and effective operation. An inspection and sampling manhole shall be constructed and made available to the City for examination and testing at any time.
- (3) No person shall discharge or cause to be discharged any substances, materials, waters, or wastes, if it appears likely to the City that such wastes can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or constitute a nuisance, or will violate standards established by the Department of Environmental Quality. In determining the acceptability of these wastes, the City will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials used in construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treatability of wastes in the sewage treatment plant, and other pertinent factors.
- (4) No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer:
 - (a) Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas.
 - (b) Any waters or wastes containing toxic or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes to injure or interfere with any sewage treatment process; or which constitute a hazard in the receiving waters of the sewage treatment plant including but not limited to cyanides.

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- (c) Any waters having a pH lower than six and one-half or higher than eight and one-half, or having any other corrosive property capable of causing damage or hazard to structures, equipment and personnel of the sewage works.
 - (d) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works such as but not limited to ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails, paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.
 - (e) Oil-component wastes, except where separators are employed, the effluent from which contains no more than 20 Mg/L of oil.
 - (f) Any liquid or vapor having a temperature higher than 150° F. (65° C.)
 - (g) Any water or waste containing fats, wax, grease or oils, whether emulsified or not, in excess of 100 Mg/L or containing substances which may solidify or become viscous at temperatures between 32° and 150° F. (0° and 65° C.)
 - (h) Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of ³/₄ horsepower or greater shall be subject to review and approval of the City.
 - (i) Any waters or wastes containing strong acid, iron, pickling wastes or concentrated plating solutions, whether neutralized or not.
 - (j) Any waters or wastes containing iron, [chromium], copper, zinc, lead, fluorides, and similar objectionable or toxic substances or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established for such materials.
 - (k) Any waters or wastes containing phenols or other taste or odor-producing substances in such concentrations exceeding limits which may be established by the USA as necessary, after treatment of the composite sewage to meet the requirements of the state, federal or other public agencies of jurisdiction for such discharge to the receiving waters.
 - (l) Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the USA in compliance with applicable state or federal regulations.
 - (m) Materials which exert or cause:
 - (i) Unusual concentration of inert suspended solids (such as, but not limited to, fullers earth, lime slurries and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).
 - (ii) Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).
 - (iii) Unusual BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works.
 - (n) Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of discharge to the receiving waters.

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- (o) Industrial plants may be required to have separate collection systems; one system to be installed for customary sanitary sewerage connected directly to the City system; a second system to be installed to collect processing wastes from shop sinks, floor drains, wash stations, plating or cleaning works, and all other industrial waste sources. The second system is to discharge into an exterior concrete sump of sufficient capacity to hold at least one day's discharge from these sources and be connected to the City system only by a valved overflow. The sump shall be readily accessible for inspection and analysis by the City and the USA, and only properly treated or neutralized wastes will be allowed to flow into the City system. The City reserves the right to require that City approval be secured for each incident of discharge.
 - (5) The interpretation of technical provisions of this ordinance, review of plans and specifications required thereby, determination of the suitability of alternate materials and types of construction and the development of rules and regulations covering unusual conditions not inconsistent with the requirements of this ordinance shall be made by the City and, where necessary, in consultation with the USA.

TMC 3-2-050 Industrial Wastes.

- (1) The admission into the public sewers of any waters or wastes having (a) five-day Biochemical Oxygen Demand greater than 250 milligrams per liter; or (b) containing more than 300 milligrams per liter of suspended solids, shall be subject to the review and approval of the City. Where it is deemed necessary by the City, the owner shall provide, at his expense, such preliminary treatment as may be necessary to: (a) reduce the Biochemical Oxygen Demand to 250 milligrams per liter; (b) reduce objectional characteristics or constituents to within the maximum limits provided for; or (c) control the quality, quantities, and rates of discharge of such waters or wastes.
- (2) Plans, specifications, and any other pertinent information relating to proposed preliminary treatment facilities shall be submitted for the approval of the City. No construction of such facilities shall be commenced until said approvals are obtained in writing.
- (3) Where preliminary treatment facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense and available for inspection at any time by the City.
- (4) When required by the City, any owner of any property served by a side sewer carrying industrial wastes shall install a suitable sampling station in the side sewer to facilitate observation, sampling, and measurement of wastes. Such manhole, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the City. The manhole shall be installed by the owner at the owner's expense and shall be maintained by him or her so as to be safe and accessible at all times.
- (5) All measurements, tests, and analysis of the characteristics of waters and wastes to which reference is made shall be determined in accordance with standard methods and shall be determined at the control manhole provided or upon suitable samples taken at said control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the side sewer is connected.
- (6) No statement contained in this article shall be construed as preventing any special agreement or arrangement between the City and USA and any industrial concern whereby industrial wastes of unusual strength or character may be accepted by the City and USA for treatment, subject to payment therefor by the industrial concern and subject to such terms and conditions as might be required by either agency.

Response: A sanitary sewer connection is included in the subject building addition to capture the low, intermittent flows generated by the new water fixtures. The chemicals processed

within the subject building addition will be collected, stored, and shipped from the building and will not connect to the sanitary sewer system. In the event of a spill, a containment area is provided to collect liquid from the spill which can then be pumped into containers for disposal. The sanitary sewer connection will meet the applicable City and State standards. The criteria can be met.

TMC 3-2-060 Use of Public Sewers 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 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 planned addition and subject improvements includes a connection to the existing private sanitary sewer system on the Lam campus that connects to the City's public sanitary sewer system. The applicable criteria are met.

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CHAPTER 3-03 WATER SERVICE

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TMC 3-3-050 Regular Service.

- (1) Upon the application for water service, and payment of all charges, the City will install a service connection and meter of such size and location as approved by the City Engineer. Service connections and meters larger than two inches may be installed by the property owner after approval from the City Engineer.
- (2) Where the service connection and meter have been installed, regular service shall be provided upon application and payment of all charges if the structure for which service is desired complies with Subsection (3) of this section.
- (3) Regular service shall not be provided until the structure to which water is furnished has received either an approved final inspection in the case of a single-family residence, or a temporary or permanent certificate of occupancy in the case of all other structures.
- (4) The customer shall, at the customer's own risk and expense, furnish, install and keep in good and safe condition equipment that may be required for receiving, controlling, applying and utilizing water. The City shall not be responsible for loss or damage caused by the improper care or wrongful act of the customer or the customer's agent in installing, maintaining, using, operating or interfering with the equipment.
- (5) The service connection, whether located on public or private property, is the property of the City; and the City reserves the right to have it repaired, maintained and replaced.

Response: This project will not include a connection to existing underground private domestic water lines. Water service for the new addition will be extended from within existing Building D. Changes to the public water system are not included in this application. Compliance with the applicable City standards will be demonstrated at the time of building and construction permit applications.

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TMC 3-3-070 Hydrant Service.

- (1) Where available, a builder or property owner may request service through a fire hydrant by means of a hydrant meter. A person requesting hydrant service shall pay the deposit for such meter as specified in the water rates and charges.
- (2) Charges for water furnished through a hydrant meter and for tools and equipment provided with a hydrant meter shall be as established in the water rates and charges.

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- (3) If the meter or other equipment is damaged at any time and for any reason during the period in which such equipment is outstanding, the labor and materials cost of making necessary repairs, or where such costs exceed the replacement cost, then the replacement cost shall be paid by the applicant for such service.
 - (4) Upon termination or discontinuance of hydrant service the meter and all equipment provided by the City shall be returned to the City. A hydrant service connection shall be discontinued and terminated by the City without further notice six months after such service is provided, unless prior thereto, the applicant submits and the City approves an application for an extension of time. Where hydrant service is terminated or discontinued and the meter has not been returned to the City within ten days of such termination or discontinuance, in addition to requiring the return of City equipment, the City may retain any remaining deposit.
 - (5) Any funds placed on deposit for the hydrant meter or other equipment may be applied to charges payable under this section. Deposited funds which exceed applicable charges shall be returned to the hydrant service applicant unless the applicant fails to return City equipment in a timely manner.

Response: Hydrant service may be used during construction. If hydrant service is necessary, the Applicant will obtain the necessary approvals from the City. The criteria can be met.

TMC 3-3-080 Fire Protection Service.

Fire protection facilities will be allowed under the following conditions:

- (1) The owner of a fire protection system shall furnish and install a service meter approved by the City.
- (2) When a building has a fire protection service which is separate from the regular water service to the building, an appropriate backflow device, but not less than a double check detector check, approved by the Operations Director, shall be used in place of a service meter. Water supplied through this service shall not be used for any purpose except for suppressing a fire or testing of the fire protection system. If registration of regular water usage is recorded on the detector check meter, the City may require installation of a service meter or removal of the fire protection service.
- (3) The service meter shall be owned and maintained by the City and the appropriate backflow device shall be owned and maintained by the owner.
- (4) No charge shall be made for water used in the extinguishing of a fire or system testing if the customer reports the use to the City in writing within ten days of the use.
- (5) Water may be obtained from fire protection facilities for filling a tank connected with the fire service, but only if written permission is secured from the City in advance and an approved means of measurement is available and utilized. The water used shall be charged at the rates for general use.
- (6) Charges for fire protection service shall be as specified in the rates and charges.

Response: The planned addition will connect to the existing private fire protection service line adjacent to Building D. The fire protection service is separate from the domestic water service and can meet the above criteria as applicable.

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TMC 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.

TMC 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 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 days of the date of installation or relocation.

Response: Connections to the domestic water system and changes to the public water system are not included in this application. Compliance with the applicable City standards, including backflow prevention devices and cross-connections will be demonstrated at the time of building and construction permit applications.

CHAPTER 3-05 SOIL EROSION, SURFACE WATER MANAGEMENT, WATER QUALITY FACILITIES, AND BUILDING AND SEWERS

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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. 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 will obtain the necessary City erosion control permit approvals prior to site improvements. The criteria are met as applicable.

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.

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- (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.

Response: The above erosion control permit requirements can be submitted as applicable. The criteria can be met.

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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:

- (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 site's existing stormwater management facilities were designed with capacity to accommodate the planned building addition. See the Preliminary Stormwater Report in Exhibit H for details. Runoff from the planned improvements will connect to the existing storm drainage system as illustrated on the Preliminary Plans (Exhibit A) and will connect to an existing extended dry basin ("Pond B") located in the southern area of the site. The criteria are met as applicable.

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 ten 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;

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- (3) Evaluate the downstream drainage system throughout the following range of storms: Two-, five-, ten-, 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 damage 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 Preliminary Stormwater Report included as Exhibit H includes a review of the existing storm drainage system and includes a downstream analysis with the above information as applicable. Please see the Preliminary Stormwater Report for details.

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.
- (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: As described in the Preliminary Stormwater Report (Exhibit H), the existing on-site storm drainage system has capacity to accommodate runoff from the planned building addition. Additional on-site detention facilities are not necessary. The criteria do not apply.

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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.

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.

Response: As described in the Preliminary Stormwater Report (Exhibit H), “Pond B” is an existing stormwater facility that will mitigate the increase in run-off and provide water quality controls for the planned site improvements. The applicable approvals can be obtained from the City and the above criteria are met.

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IV. Conclusion

The required findings have been made and this written narrative and accompanying documentation demonstrate that the application is consistent with the applicable provisions of the Tualatin Development Code and Municipal Code. The evidence in the record is substantial and supports approval of the application.